IsoRay, Inc.
Form S-3
November 20, 2015

As Filed with the Securities and Exchange Commission on November 20, 2015

Registration No. 333-_____

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

ISORAY, INC.

(Exact name of registrant as specified in its charter)

Minnesota	**41-1458152**
(State or other jurisdiction	*(I.R.S. Employer*
of incorporation or organization)	*Identification 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)

Dwight Babcock, CEO

350 Hills Street, Suite 106

Richland, WA 99354

(509) 375-1202

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: **From time to time after the effective date of this Registration Statement.**

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ¨

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ¨

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer, “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨ Accelerated filer x

Non-accelerated filer ¨Smaller reporting company ¨

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	**Amount to be Registered (1)**	**Proposed maximum offering price per share (5)**	**Proposed maximum aggregate offering price (5)**	Amount of registration fee
Common Stock ($0.001 par value) (2) (4)	130,713	$ 1.56	$ 203,912.28	$ — (6)
Common Stock ($0.001 par value) (3) (4)	225,087	$ 0.944	$ 212,482.13	$ — (6)
Total	355,800		$ 416,394.41	$ — (6)

(1) In addition, pursuant to Rule 416(a) under the Securities Act of 1933, this Registration Statement also relates to such indeterminate number of additional shares of common stock of the Registrant as may be issuable in the event of a stock dividend, stock split, recapitalization, or other similar changes in the capital structure, merger, consolidation, spin-off, split-off, spin-out, split-up, reorganization, partial or complete liquidation, or other distribution of assets, issuance of rights or warrants to purchase securities, or any other corporate transaction or event having an effect similar to any of the foregoing, in each case determined in accordance with Rule 416 under the Securities Act.

(2) Issuable upon exercise of outstanding Series D warrants to purchase 130,713 shares of common stock.

(3) Issuable upon exercise of outstanding warrants to purchase 225,087 shares of common stock.

(4) Each share of common stock also includes preferred share purchase rights to purchase shares of Series C Junior Participating Preferred Stock under the registrant's Rights Agreement dated February 1, 2007 as described under "Description of Capital Stock." The preferred stock purchase rights are not currently separable from the shares of common stock and are not currently exercisable. The preferred stock purchase rights are attached to and trade with the common stock and no separate consideration is payable for the rights. Therefore, the registration fee for the preferred stock purchase rights is included in the fee for the common stock.

(5) The proposed maximum aggregate offering price has been estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.

(6) As permitted by Rule 415(a)(6) under the Securities Act of 1933, as amended, this Registration Statement includes 355,800 shares of common stock previously registered on an expiring registration statement (File No. 333-184868) which remain unsold as of the date hereof. The Registrant previously paid a filing fee for such unsold shares of common stock, which will continue to be applied to such unsold shares, thereby eliminating any filing fee for this Registration Statement. Pursuant to Rule 415(a)(6), the offering of the unsold securities registered under the expiring registration statement will be deemed terminated as of the date of effectiveness of this Registration Statement.

IsoRay hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until IsoRay shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Explanatory Note

This registration statement relates to the prospectus declared effective on November 23, 2012 under Registration Statement No. 333-184868 (the "Amended Registration Statement"), which is expiring. The Amended Registration Statement was filed upon the expiration of the prospectus declared effective on November 13, 2009, as supplemented on April 23, 2010, November 24, 2010, December 28, 2010, October 13, 2011 and July 17, 2012, which prospectus supplements were filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) on such dates under Registration Statement No. 333-162694 (the "Original Registration Statement"). This Registration Statement on Form S-3 contains an updated prospectus relating to shares of common stock issuable upon exercise of the warrants to purchase shares of common stock registered in the Original Registration Statement and the Amended Registration Statement. All filing fees payable in connection with the registration of the shares of common stock issuable on exercise of these warrants were previously paid in connection with the filing of the Original Registration Statement.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the Securities and Exchange Commission declares our registration statement effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated November 20, 2015

ISORAY, INC.

355,800 Shares of Common Stock

This prospectus relates to the issuance by us of 355,800 shares of our common stock, par value $0.001 per share, of IsoRay, Inc., a Minnesota corporation (the "Company"), of which:

- 130,713 shares (the "Series D Warrant Shares") are issuable upon the exercise of outstanding Series D Warrants held by certain persons (the "Series D Warrants" or the "2010 Warrants"); and

- 255,087 shares (the "2011 Warrant Shares") are issuable upon the exercise of outstanding Warrants held by certain persons (the "2011 Warrants" and, together with the 2010 Warrants, the "Warrants").

The Warrants were all issued pursuant to a prospectus declared effective on November 13, 2009. The 2010 Warrants were issued on November 24, 2010 pursuant to a prospectus supplement filed on November 24, 2010 and the 2011 Warrants were issued on October 19, 2011 pursuant to a prospectus supplement filed on October 13, 2011. A prospectus was declared effective on November 23, 2012 to extend the registration of the common stock issuable upon exercise of the Warrants.

Each Warrant entitles the holder to purchase one share of our common stock. In order to obtain the shares, the holders of the Warrants must pay an exercise price of $0.944 per share for the 2011 Warrants, and $1.56 for the Series D Warrants, subject to adjustment. The Warrants expire five years from their date of initial exercisability, which was the

date of issuance for the 2011 Warrants, and six months from the date of issuance for the Series D Warrants.

Our principal executive offices are located at 350 Hills Street, Suite 106, Richland, Washington 99354, and our telephone number is (509) 375-1202.

Our common stock is listed on the NYSE MKT under the symbol “ISR” and as of November 19, 2015, the closing price of our common stock was $1.13.

Investing in the securities we may offer involves various risks. See the sections entitled “Risk Factors” on page 7 and “Note Regarding Forward-Looking Statements” on page 7. Additional risks associated with an investment in us will be described in certain of our filings with the Securities and Exchange Commission. You should read the entire prospectus carefully before you make your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____.

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The registration statement, including the exhibits and the documents incorporated herein by reference, can be read on the Securities and Exchange Commission website or at the Securities and Exchange Commission offices mentioned under the heading "Where You Can Find Additional Information."

ABOUT THIS PROSPECTUS

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front cover of this prospectus. You should not assume that the information incorporated by reference in this prospectus is accurate as of any date other than the date the respective information was filed with the Securities and Exchange Commission. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus does not contain all the information provided in the registration statement we filed with the SEC. For further information about us or the securities offered hereby, you should refer to that registration statement, which you can obtain from the SEC as described below under "Where You Can Find Additional Information."

INDUSTRY AND MARKET DATA

This prospectus contains and incorporates by reference market data, industry statistics and other data that have been obtained from, or compiled from, information made available by third parties. Although we believe these third-party sources are reliable, we have not independently verified the information. Except as may otherwise be noted, none of the sources cited in this prospectus has consented to the inclusion of any data from its reports, nor have we sought their consent. In addition, some data are based on our good faith estimates. Such estimates are derived from publicly available information released by independent industry analysts and third-party sources, as well as our own management's experience in the industry, and are based on assumptions made by us based on such data and our knowledge of such industry and markets, which we believe to be reasonable. However, none of our estimates have been verified by any independent source. See "Note Regarding Forward-Looking Statements" below.

PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere or incorporated by reference in this prospectus and may not contain all of the information that is important to you. This prospectus includes or incorporates by reference information about the securities we are offering as well as information regarding our business and detailed financial data. After you read this summary, you should read this prospectus in its entirety, including the information incorporated by reference in this prospectus, especially the section entitled "Risk Factors." If you invest in our securities, you are assuming a high degree of risk.

ABOUT ISORAY

In this prospectus, the terms "IsoRay," the "Company," "we," "us," "our" and similar terms refer to IsoRay, Inc. and its subsidiaries IsoRay, Medical, Inc. (Medical) and IsoRay International LLC.

In 2003, IsoRay obtained clearance from the FDA for treatment for all solid tumor applications using Cesium-131. As of the date of this prospectus, such applications include prostate cancer; ocular melanoma; head, neck and lung tumors; breast cancer; liver cancer; brain cancer; colorectal cancer; gynecological cancer; esophageal cancer; and pancreatic cancer. The brachytherapy seed form of Cesium-131 may be used in surface, interstitial and intracavity applications for tumors with known radio sensitivity. Management believes its Cs-131 technology will allow it to become a leader in the brachytherapy market. Management believes that the IsoRay Proxcelan® Cesium-131 brachytherapy seed represents the first major advancement in brachytherapy technology in approximately 30 years with attributes that could make it the long-term "seed of choice" for internal radiation therapy procedures.

Brachytherapy seeds are small devices used in an interstitial radiation procedure. The procedure has become one of the primary treatments for prostate cancer. The brachytherapy procedure places radioactive seeds as close as possible to (in or near) the cancerous tumor (the word "brachytherapy" means close therapy). The seeds deliver therapeutic radiation thereby killing the cancerous tumor cells while minimizing exposure to adjacent healthy tissue. This procedure allows doctors to administer a higher dose of radiation directly to the tumor. Each seed contains a radioisotope sealed within a titanium capsule. When brachytherapy is the only treatment (monotherapy) used in the prostate, approximately 70 to 120 seeds are permanently implanted in the prostate in an outpatient procedure. The number of seeds used varies based on the size of the prostate and the activity level specified by the physician. When brachytherapy is combined with external beam radiation or intensity modulated radiation therapy (dual therapy), then approximately 40 to 80 seeds are used in the procedure. The isotope decays over time and eventually the seeds become inert. The seeds may be used as a primary treatment or as an adjunct therapy with other treatment modalities, such as chemotherapy, or as treatment for residual disease after excision of primary tumors. The number of seeds for other treatment sites commonly vary from as few as 8 seeds to more than 100 seeds depending on the type of cancer, the location of the tumor being treated and the type of therapy being utilized.

IsoRay began production and sales of Proxcelan® Cesium-131 brachytherapy seeds in October 2004 for the treatment of prostate cancer after clearance of its premarket notification (510(k)) by the Food and Drug Administration (FDA). In December 2007, IsoRay began selling its Proxcelan® Cs-131 seeds for the treatment of ocular melanoma, however, the market for the treatment has been limited generating a minimal amount of revenue for the Company. The Company continues to make the treatment available to interested physicians and medical facilities. In June 2009, the Company began selling its Proxcelan® Cs-131 seeds for treatment of head and neck tumors, commencing with treatment of a tumor that could not be accessed by other treatment modalities. The Company obtained clearance in August 2009 from the FDA to permit loading Cesium-131 into bioabsorbable braided sutures which are commonly referred to in the industry as braided strands, facilitating treatment of brain, lung, and head and neck tumors as well as tumors in other organs with Proxcelan® Cs-131. During the fiscal year ended June 30, 2010, the Company expanded the number of areas of the body in which the Proxcelan® Cs-131 seeds were being utilized for treatment by adding lung cancer in August 2009, colorectal cancer in October 2009, and chest wall cancer in December 2009. During the fiscal year ended June 30, 2011, the Company continued the expansion in the number of areas of the body in which the Proxcelan® Cs-131 seeds were being utilized through the addition of the treatment of brain cancer in September 2010 and the treatment of gynecological cancer in December 2010.

In March 2011, the Company received clearance to commercially deliver Proxcelan® Cesium-131 brachytherapy seeds that are preloaded into bioabsorbable braided sutures into Europe. This clearance permits the product to be commercially distributed for treatment of brain, lung, and head and neck tumors as well as tumors in other organs in Europe.

In August 2011, Medical received clearance from the FDA for its premarket notification (510(k)) for the GliaSite® Radiation Therapy System (GliaSite® RTS). The GliaSite® RTS is the only FDA-cleared balloon catheter device used in the treatment of brain cancer.

In May 2012, Medical received a CE mark for the GliaSite® RTS which states that the Company conforms with the product requirements of the European Council Directive 93/42/EEC. The CE mark allows the GliaSite® RTS to be sold in 31 European countries and to be marketed in the European Free Trade Associate member states and the European Union. In June 2012, the first Cesium-131 brachytherapy seed sutured mesh was implanted on a patient suffering from a recurring meningioma tumor.

Management focused in fiscal 2012 and 2013 on obtaining its regulatory clearances and final research and development of its GliaSite® RTS, entering into international distribution agreements to sell the product in Europe and Australia, and marketing its brain and lung products. The GliaSite® RTS is the world's only system that enables doctors to use liquid radiation in areas where the cancer is most likely to remain after brain surgery and tumor removal. In fiscal 2013, the Company began supporting the use of a system developed at the Barrow Neurological Institute to deliver doses of Cesium-131 to treat malignant meningioma, brain metastases, and primary cancers of the brain. A multi-institutional study was conducted to explore the use of braided sutures containing Proxcelan® Cs-131 seeds placed directly into the cavity following surgical resection of brain metastases.

In August 2013, Medical received an approval for an extension to the scope of the CE mark for the GliaSite® RTS. This approval allowed Medical to implement certain product improvements that management believed would enhance GliaSite® RTS's acceptance by customers in the European market.

In December 2013, the Company received clearance for Cesitrex™ from the FDA. Cesitrex™ is the liquid form of Cesium-131 and can be used in place of Iotrex®, the liquid form of Iodine-125, in the Company's GliaSite® RTS. In May 2014, the Company received clearance for Cesitrex™ from the Washington Department of Health. In June 2014, the Company delivered its first order of Cesitrex™ for use in treating a patient.

In October 2014, IsoRay announced early success for a young Peruvian girl utilizing Cesium-131 in the first stereotactic implant for inoperable brain cancer. This 7 year old girl was back in school as of August 2015 with no

restrictions and normal activities. In December 2014, Barrow Neurological Institute released its findings that IsoRay's Cesium-131 therapy stops brain cancers from recurring in treated locations where previous conventional treatments failed.

Also, in December 2014, Cesium-131 was used in the world's first veterinary implant in a horse with cancer.

In January 2015, the first Cesium-131 prostate cancer treatment was performed in Russia at the Neftyanik Hospital, a center providing cutting edge cancer treatments. In May 2015, the five-year 96% success in local control and 100% survival rates for lung cancer treatment using Cesium-131 were released in a peer-reviewed study.

In June 2015, Cesium-131 was selected by Chicago Prostate Cancer Center for use in the launch of a study of focal treatment of prostate cancer.

While management has not identified additional opportunities to expand treatment to other sites in the body, we continue to investigate potential new opportunities with interested physicians and medical facilities. Other than servicing the predominant part of our business which is for prostate cancer, management is now focusing primarily on the brain, lung and gynecological markets while the Company continues to research delivery systems other than those historically used by the Company.

Our principal executive offices are located at 350 Hills Street, Suite 106, Richland, Washington 99354, and our telephone number is (509) 375-1202. We maintain an Internet website at *www.isoray.com*. Information on or accessible through our website does not constitute part of this prospectus and should not be relied upon in connection with making any investment decision with respect to the securities offered by this prospectus.

Although our predecessor operating company was organized in 1998, IsoRay, Inc. was incorporated in 1983 in Minnesota and operated under the name Century Park Pictures Corporation until the merger with IsoRay Medical, Inc. on July 28, 2005.

THE OFFERING

The following is a brief summary of some of the terms of the offering and is qualified in its entirety by reference to the more detailed information appearing elsewhere in this prospectus. For a more complete description of the terms of our common stock and the warrants, see the "Description of Capital Stock" and "Description of the Warrants" sections in this prospectus.

Shares Offered by the Company	355,800 shares of common stock, of which: 130,713 shares of common stock are issuable upon the exercise of outstanding Series D Warrants; and 225,087 shares of common stock are issuable upon the exercise of outstanding 2011 Warrants.
Warrants:	
Warrant Exercise Price	$0.944 per share for the 2011 Warrants. The Series D Warrants have an exercise price equal to $1.56.
Warrant Expiration Date	Five years from the date of initial exercisability, or between May 24, 2016 and October 19, 2016.
Warrant Exercise Period	The 2011 Warrants became exercisable on issuance. The Series D Warrants became exercisable on the six-month anniversary of their issuance.
Common Stock Outstanding as of November 18, 2015	55,013,553 shares
Common Stock to be Outstanding Assuming Exercise of All of the Warrants	55,369,353 shares
Use of Proceeds	IsoRay will receive up to an aggregate of approximately $416,394 from the exercise of the Warrants, if they are exercised in full. IsoRay expects that any net proceeds from the exercise of the Warrants will be used for general corporate purposes and to fund working capital.
Risk Factors	Our business is subject to substantial risk. Please carefully consider the "Risk Factors" beginning on page 7 of this prospectus and other information included and incorporated by reference in this prospectus including, but not limited to, the "Risk Factors" in our Annual Report on Form

	10-K for the fiscal year ended June 30, 2015, and any subsequent updates in our Quarterly Reports on Form 10-Q, for a discussion of the factors you should consider carefully before deciding to purchase these securities. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. You should be able to bear a complete loss of your investment.
Dividends	We have not paid any cash dividends on our common stock and currently intend to retain any earnings to fund our working capital needs and growth opportunities.
NYSE MKT Symbol	ISR

The number of shares of our common stock outstanding before this offering is based on approximately 55,013,553 shares outstanding as of November 18, 2015 and excludes:

- 355,800 shares of common stock issuable upon the exercise of warrants outstanding at November 18, 2015 at a weighted average exercise price of $1.17 per share;

- 59,065 shares of common stock issuable upon the conversion of preferred stock outstanding at November 18, 2015;

- 2,384,346 shares of common stock issuable upon the exercise of options outstanding at November 18, 2015 at a weighted average exercise price of $1.92 per share; and

- 1,834,334 shares of common stock reserved for future stock option grants as of November 18, 2015 under our equity compensation plans.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described under "Risk Factors" in our most recent Annual Report on Form 10-K, or any updates in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. The risks so described are not the only risks facing our company. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

Risks Related to this Offering

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 issuable upon conversion of outstanding preferred stock or exercise of common stock warrants and options, 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 November 18, 2015, we had 55,013,553 outstanding shares of common stock, and the following additional shares were reserved for issuance: 2,384,346 shares upon exercise of outstanding options, 355,800 shares upon exercise of outstanding warrants, and 59,065 shares upon conversion of preferred stock. 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.

Holders Of The Warrants Will Have No Rights As Common Shareholders Until They Exercise Their Warrants But Holders of the 2010 Warrants Will Receive Any Dividends. Until holders of the Warrants offered hereby acquire shares of our common stock upon exercise of the Warrants, they will have no rights with respect to our common stock but holders of the 2010 Warrants will be paid dividends upon exercise if any dividends are paid to shareholders of common stock. Upon exercise of the Warrants, holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to historical information, this prospectus, any prospectus supplement and the documents incorporated by reference herein contain certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA). This statement is included for the express purpose of availing IsoRay, Inc. of the protections of the safe harbor provisions of the PSLRA.

All statements contained in this prospectus, any prospectus supplement and the documents incorporated by reference herein, other than statements of historical facts, that address future activities, events or developments are forward-looking statements, including, but not limited to, statements containing the words "believe," "expect," "anticipate," "intends," "estimate," "forecast," "project," and similar expressions. 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 revenue, economic conditions or performance; any statements of belief; and any statements of assumptions underlying any of the foregoing. These statements are based on certain assumptions and analyses made by us in light of our experience and our assessment of historical trends, current conditions and expected future developments as well as other factors we believe are appropriate under the circumstances. However, whether actual results will conform to the expectations and predictions of management is subject to a number of risks and uncertainties that may cause actual results to differ materially.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus, the date of any prospectus supplement, or, in the case of forward-looking statements incorporated by reference, as of the date of the filing that includes the statement. New risks and uncertainties arise from time to time, and it is impossible for us to predict these matters or how they may affect us. Over time, our actual results, performance or achievements will likely differ from the anticipated results, performance or achievements that are expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. We do not undertake and specifically decline any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus and supplements to this prospectus under the caption "Risk Factors" as well as in our most recent Annual Report on Form 10-K, including without limitation under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in other documents that we may file with the SEC, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus and any prospectus supplement.

USE OF PROCEEDS

Proceeds from the exercise of the Warrants are estimated to be up to $416,394, assuming all Warrants are exercised in full using cash, and may be received by the Company at any time depending on when and if the Warrants are exercised by investors. There can be no assurance that the holders of Warrants will exercise any or all of them. We will not receive any proceeds from the Warrants unless and until the Warrants are exercised for cash. These proceeds when and if received are expected to be used for general corporate purposes, including without limitation, capital expenditures and working capital needs. The amounts and timing of our use of proceeds from the Warrants will vary depending on a number of factors, including when the Warrants are exercised, the amount of cash generated or used by our operations, and the rate of growth, if any, of our business. As a result, we will retain broad discretion in the allocation of the proceeds that we receive upon exercise of the Warrants. We currently intend to use the net proceeds from the exercise of the Warrants for working capital, capital expenditures, research and development, and other general corporate purposes. We may also use such proceeds to fund acquisitions of businesses, technologies or product lines that complement our current business. However, we currently have no commitments or agreements for any specific acquisitions.

Although we have identified some of the potential uses of the proceeds from this offering, we have and reserve broad discretion in the application of these proceeds. Accordingly, we reserve the right to use these proceeds for different purposes or uses which we have not listed above, particularly if there is a change in demand for certain applications of our Cesium-131 and other products which may require increased investment in protocols and research studies and the

hiring of additional sales staff.

Pending any ultimate use of any portion of the proceeds from this offering, we intend to invest the proceeds in short – and medium – term interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DETERMINATION OF OFFERING PRICE

The terms and conditions of the Warrants, including their exercise price, were determined by negotiation by us and the underwriters, placement agent and purchaser of the Warrants at the times of their sale in 2010 and 2011. The principal factors considered in determining the terms and conditions of the sale of our Warrants included:

- the market price of our common stock;
- the recent market prices of, and demand for, publicly traded common stock and warrants to purchase publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters/placement agent/purchaser and us.

PLAN OF DISTRIBUTION

The Warrants have already been distributed and their exercise is in the discretion of the Warrant holders.

We are registering the shares of common stock underlying the Warrants originally registered and issued in 2010 and 2011 that are issuable upon the exercise of such Warrants by the holders thereof. The Warrants may be exercised at the Company's office, with the exercise form attached to the Warrant completed and executed as indicated, accompanied by full payment of the exercise price, by certified check payable to us, for the number of Warrants being exercised. Alternatively, if "cashless exercise" is available, the exercise form would indicate that such method of exercise was being elected. Promptly upon receipt of the notice of exercise together with full payment of the Warrant price, the Company will deliver to the holder the shares of common stock being purchased. We do not know if or when the Warrants will be exercised. We also do not know whether any of the shares acquired upon exercise will be sold.

GENERAL DESCRIPTION OF SECURITIES

The shares of common stock issuable from time to time upon exercise of the Warrants, if any, are being offered pursuant to this prospectus.

DESCRIPTION OF CAPITAL STOCK

The following is a summary description of the rights of our common stock and related provisions of our amended Articles of Incorporation and our Bylaws. The following description of our capital stock is intended as a summary only and is qualified in its entirety by reference to our amended Articles of Incorporation and our Bylaws, which are filed as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of

Minnesota law.

Common Stock

Our common shares are listed on the NYSE MKT under the symbol "ISR". As of November 18, 2015, 55,013,553 shares of common stock were issued and outstanding, and there were approximately 239 holders of record.

The Company's Articles of Incorporation provide that the Company has the authority to issue 200 million shares of capital stock, which are currently divided into two classes as follows: 192,998,329 shares of common stock, par value of $0.001 per share; and 7,001,671 shares of preferred stock, also with a par value of $0.001 per share.

The holders of our common stock have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares. All of the outstanding shares of our common stock are, and the shares of our common stock when issued will be, fully paid and nonassessable.

Voting. Holders of the common stock are entitled to one vote per share on all matters to be voted on by the Company's shareholders. The Company's Bylaws provide that a majority of the outstanding shares of the corporation entitled to vote constitute a quorum at a meeting of the shareholders.

Dividends. The Company's Board of Directors, in its sole discretion, may declare and pay dividends on the common stock, payable in cash or other consideration, out of funds legally available, if all dividends due on the preferred stock have been declared and paid. The Company has not paid any cash dividends on its common stock and does not plan to pay any cash dividends on its common stock for the foreseeable future.

Liquidation, Subdivision, or Combination. In the event of any liquidation, dissolution or winding up of the Company or upon the distribution of its assets, all assets and funds remaining after payment in full of the Company's debts and liabilities, and after the payment to holders of any then outstanding preferred stock of the full preferential amounts to which they were entitled, would be divided and distributed among holders of the common stock.

Anti-Takeover Effects Of Provisions Of The Articles Of Incorporation. The authorized but unissued shares of our common and preferred stock are available for future issuance without our shareholders' approval. These additional shares may be utilized for a variety of corporate purposes including but not limited to future public or direct offerings to raise additional capital, corporate acquisitions and employee incentive plans. The issuance of such shares may also be used to deter a potential takeover of IsoRay that may otherwise be beneficial to shareholders by diluting the shares held by a potential suitor or issuing shares to a shareholder that will vote in accordance with IsoRay's Board of Directors' desires. A takeover may be beneficial to shareholders because, among other reasons, a potential suitor may offer shareholders a premium for their shares of stock compared to the then-existing market price.

On February 1, 2007, the Board of Directors of IsoRay, Inc. declared a dividend of one preferred share purchase right (a "Right") for each outstanding Common Share of the par value of $.001 per share (the "Common Shares") of the Company. The dividend is payable on February 16, 2007 (the "Record Date") to shareholders of record on that date.

Each Right entitles the registered holder to purchase from the Company one one-hundredth of a Series C Junior Participating Preferred Share of the par value of $.001 per share (the "Preferred Shares") of the Company at a price of $25 per one one-hundredth of a Preferred Share (the "Purchase Price"), subject to adjustment. The description and terms of the Rights are set forth in a Rights Agreement (the "Rights Agreement"), dated as of February 1, 2007, between the Company and Computershare Trust Company N.A., as Rights Agent (the "Rights Agent").

Initially, the Rights will attach to all certificates representing Common Shares then outstanding and no separate Right Certificates will be distributed. The Rights will separate from the Common Shares and a Distribution Date for the

Rights will occur upon the earlier of:

(i) the close of business on the fifteenth day following a public announcement that a person or group of affiliated or associated persons has become an "Acquiring Person" (i.e., has become, subject to certain exceptions, the beneficial owner of 15% or more of the voting power of the outstanding shares of voting capital stock of the Company in the election of directors), or

(ii) the close of business on the fifteenth day following the first public announcement relating to a tender offer or exchange offer the consummation of which would result in a person or group of affiliated or associated persons becoming, subject to certain exceptions, the beneficial owner of 15% or more of the voting power of the outstanding shares of voting capital stock of the Company in the election of directors (or such later date as may be determined by the Board of Directors of the Company prior to a person or group of affiliated or associated persons becoming an Acquiring Person).

Until the Distribution Date,

(i) the Rights will be evidenced by the Common Share certificates and will be transferred with and only with the Common Shares,

(ii) new Common Share certificates issued after the Record Date upon transfer or new issuance of the Common Shares will contain a notation incorporating the Rights Agreement by reference, and

(iii) the surrender for transfer of any Common Share certificate, even without such notation or a copy of this Summary of Rights attached thereto, will also constitute the transfer of the Rights associated with the Common Shares represented by such certificate.

As promptly as practicable following the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of the Common Shares as of the close of business on the Distribution Date and such separate Right Certificates alone will evidence the Rights.

The Rights are not exercisable until the Distribution Date. The Rights will expire on February 16, 2017, unless extended or earlier redeemed or exchanged by the Company as described below.

The Purchase Price payable, and the number of Preferred Shares or other securities or property issuable, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution:

(i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the Preferred Shares,

(ii) upon the grant to holders of the Preferred Shares of certain rights, options or warrants to subscribe for or purchase Preferred Shares or convertible securities at less than the then current market price of the Preferred Shares, or

(iii) upon the distribution to holders of the Preferred Shares of evidences of indebtedness or assets (excluding regular periodic cash dividends or dividends payable in Preferred Shares) or of subscription rights or warrants (other than those described in clause (ii) hereof).

The number of Preferred Shares issuable upon the exercise of a Right is also subject to adjustment in the event of a dividend on Common Shares payable in Common Shares, or a subdivision, combination or consolidation of the Common Shares.

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments require an adjustment of at least 1% in the Purchase Price. No fractional Preferred Shares will be issued (other than fractional shares which are integral multiples of one one-hundredth (subject to adjustment) of a Preferred Share, which may, at the election of the Company, be evidenced by depositary receipts) if in lieu thereof a payment in cash is made based on the closing price (pro-rated for the fraction) of the Preferred Shares on the last trading date prior to the date of exercise.

In the event that any person or group of affiliated or associated persons becomes an Acquiring Person, proper provision shall be made so that each holder of a Right, other than Rights that are or were beneficially owned by the Acquiring Person (which will thereafter be void), will thereafter have the right to receive upon exercise thereof at the then current exercise price of the Right that number of Common Shares having a market value of two times the exercise price of the Right, subject to certain possible adjustments.

In the event that, after the Distribution Date or within 15 days prior thereto, the Company is acquired in certain mergers or other business combination transactions or 50% or more of the assets or earning power of the Company and its subsidiaries (taken as a whole) are sold after the Distribution Date or within 15 days prior thereto, each holder of a Right (other than Rights which have become void under the terms of the Rights Agreement) will thereafter have the right to receive, upon exercise thereof at the then current exercise price of the Right, that number of common shares of the acquiring company (or, in certain cases, one of its affiliates) having a market value of two times the exercise price of the Right.

In certain events specified in the Rights Agreement, the Company is permitted to temporarily suspend the exercisability of the Rights.

At any time after a person or group of affiliated or associated persons becomes an Acquiring Person (subject to certain exceptions) and prior to the acquisition by a person or group of affiliated or associated persons of 50% or more of the voting power of the outstanding shares of voting capital stock of the Company in the election of directors, the Board of Directors of the Company may exchange all or part of the Rights (other than Rights which have become void under the terms of the Rights Agreement) for Common Shares or equivalent securities at an exchange ratio per Right equal to the result obtained by dividing the exercise price of a Right by the current per share market price of the Common Shares, subject to adjustment.

At any time prior to such time as a person or group of affiliated or associated persons becomes an Acquiring Person, the Board of Directors of the Company may redeem the Rights in whole, but not in part, at a price of $.001 per Right, subject to adjustment (the "Redemption Price"), payable in cash. The period of time during which the Rights may be redeemed may be extended by the Board of Directors of the Company if no person has become an Acquiring Person. The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board of Directors in its sole discretion may establish. The Board of Directors and the Company shall not have any liability to any person as a result of the redemption or exchange of the Rights pursuant to the provisions of the Rights Agreement.

The terms of the Rights may be amended by the Board of Directors of the Company, subject to certain limitations after such time as a person or group of affiliated or associated persons becomes an Acquiring Person, without the consent of the holders of the Rights, including an amendment prior to the date a person or group of affiliated or associated persons becomes an Acquiring Person to lower the 15% threshold for exercisability of the Rights to not less than the greater of (i) the sum of .001% and the largest percentage of the outstanding shares of voting capital stock of the Company with voting power in the election of directors then known by the Company to be beneficially owned by any person or group of affiliated or associated persons (subject to certain exceptions) or (ii) 10%.

Until a Right is exercised, the holder thereof, as such, will have no rights as a shareholder of the Company, including, without limitation, the right to vote or to receive dividends.

The foregoing description of the Rights Agreement is qualified in its entirety by reference to the full text of the Rights Agreement.

Transfer Agent and Registrar. The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is 8774 Lucent Blvd., Ste 225, Highlands Ranch, CO 80129, and its telephone number is (303) 262-0600.

Listing

Our shares of common stock are traded on the NYSE MKT under the ticker symbol “ISR.”

DESCRIPTION OF THE WARRANTS

Description of the 2011 Warrants

The material terms and provisions of the 2011 Warrants are summarized below. This summary is subject to, and qualified in its entirety by, the form of warrant filed as an exhibit to our current report on Form 8-K, filed with the SEC on October 13, 2011.

Exercise and Duration. The 2011 Warrants are, as of the date of this prospectus, exercisable to purchase an aggregate of 255,087 shares of common stock at an exercise price of $0.944 per share, subject to adjustment as summarized below, and will be immediately exercisable until the close of business on the five-year anniversary of the original issuance.

Registration. Certificates for the 2011 Warrants are issued in fully registered form and a register of holders is maintained at our principal offices in Richland, Washington. One or more certificates may be exchanged for one or more certificates of different denominations evidencing in the aggregate the same number of 2011 Warrants, as the certificates being exchanged.

Adjustment of Exercise Price. The exercise price of the 2011 Warrants is subject to adjustment in the event of a subdivision or combination of our common stock, or in the event of a stock dividend on our common stock or other distribution on any class of common stock or other equity or equity equivalent security that is payable in shares of common stock or upon an issuance by reclassification of shares of our common stock any shares of capital stock of the Company. Simultaneously with any of the aforementioned adjustments to the exercise price of a 2011 Warrant, the number of shares of common stock that may be purchased upon exercise of the 2011 Warrants will be increased or decreased proportionately, so that the aggregate exercise price payable under the 2011 Warrants will remain the same. The exercise price of the 2011 Warrants will also be subject to adjustment if we make a dilutive issuance or a pro rata distribution to our shareholders of property or assets, including but not limited to evidences of indebtedness, securities and rights or 2011 Warrants to subscribe for or purchase securities.

Fundamental Transactions. We will not enter into or be party to a fundamental transaction, which is a merger or other change of control transaction, as described in the 2011 Warrants, unless the successor entity, as described in the 2011 Warrants, assumes the 2011 Warrants and delivers new 2011 Warrants that are substantially similar. If we enter into, or are a party to, a fundamental transaction pursuant to which our shareholders are entitled or required to receive securities issued by another company or cash or other assets in exchange for our common stock, which we refer to as a corporate event, a holder of a 2011 Warrant will have the right to receive, upon exercise of the 2011 Warrant, consideration as if such holder had exercised the 2011 Warrant immediately prior to such corporate event.

Fractional Shares. To the extent that a holder of 2011 Warrants would otherwise be entitled to purchase a fraction of a share of our common stock, we may, at our option, either pay a cash adjustment in respect of such final fraction or round up the fraction to the nearest whole share.

Transferability. Subject to applicable laws, the 2011 Warrants may be transferred at the option of the holders upon surrender of the 2011 Warrants to us together with the appropriate instruments of transfer.

No Rights as Shareholders. Holders of the 2011 Warrants do not have any voting or pre-emptive rights or any other rights as our shareholders prior to the exercise of the 2011 Warrants.

Description of the 2010 Warrants

The material terms and provisions of the 2010 Warrants are summarized below. This summary is subject to, and qualified in its entirety by, the form of Series D Warrant filed as an exhibit to our current report on Form 8-K, filed with the SEC on November 22, 2010.

One series of 2010 Warrants remain outstanding - Series D Warrants exercisable for 130,713 shares of common stock.

The 2010 Warrants have terms of five years from the initial exercisability date. The Series D Warrants were exercisable beginning six months after their issuance date and have an exercise price equal to $1.56.

Exercise. Holders of the 2010 Warrants may exercise their 2010 Warrants to purchase shares of our common stock on or before the expiration date by delivering (i) an exercise notice, appropriately completed and duly signed, and (ii) if such holder is not utilizing the cashless exercise provisions, payment of the exercise price for the number of shares with respect to which the 2010 Warrant is being exercised. 2010 Warrants may be exercised in whole or in part, but only for full shares of common stock, and any portion of a 2010 Warrant not exercised prior to the expiration date shall be and become void and of no value. We provide certain buy-in rights to a holder if we fail to deliver the shares of common stock underlying the 2010 Warrants by the third business day after the date on which delivery of such stock certificate is required by the 2010 Warrant. The buy-in rights apply if after such third business day, but prior to cure by us, the holder purchases (in an open market transaction or otherwise) shares of our common stock to deliver in satisfaction of a sale by the holder of the 2010 Warrant shares that the holder anticipated receiving from us upon exercise of the 2010 Warrant. In this event, at the request of and in the holder's discretion, we will:

- pay cash to the holder in an amount equal to (i) the buy-in price, meaning the holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased minus (ii) the aggregate sale price of the shares of common stock giving rise to the buy-in purchase which the holder had attempted to obtain through exercise; and

- at the holder's option, either (a) deliver to the holder a certificate or certificates representing the shares of common stock underlying the exercised Warrant or (b) reinstate the portion of the Warrant and equivalent number of shares of common stock underlying the Warrant for which such exercise was not honored.

In addition, the 2010 Warrant holders are entitled to a "cashless exercise" option if, at any time of exercise, there is no effective registration statement registering, or no current prospectus available for, the issuance or resale of the shares underlying the 2010 Warrant. This option entitles the 2010 Warrant holder to elect to receive fewer shares of common stock without paying the cash exercise price. The number of shares to be issued would be determined by a formula based on the total number of shares to which the 2010 Warrant holder is entitled, the volatility-weighted average price of the common stock on the trading day before the date of exercise and the applicable exercise price of the 2010 Warrants.

The shares of common stock issuable on exercise of the 2010 Warrants will be, when issued in accordance with the 2010 Warrants, duly and validly authorized, issued and fully paid and non-assessable. We will authorize and reserve at least that number of shares of common stock equal to the number of shares of common stock issuable upon exercise of all outstanding 2010 Warrants.

Fundamental Transaction. If, at any time while the 2010 Warrants are outstanding, (1) we effect any merger or consolidation with or into another person or entity after which our shareholders as of immediately prior to the transaction own less than a majority of the outstanding stock of the surviving entity, (2) we effect any sale of all or substantially all of our assets in one or a series of related transactions, (3) any tender offer or exchange offer (whether by us or another person or entity) is completed pursuant to which holders of common stock are permitted to tender or

exchange their shares for other securities, cash or property, or (4) we effect any reclassification of the common stock or any compulsory share exchange pursuant to which the common stock is effectively converted into or exchanged for other securities, cash or property (in any such case, a "Fundamental Transaction"), then the holder shall have the right thereafter to receive, upon exercise of the 2010 Warrants, the same amount and kind of securities, cash or property as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of the number of 2010 Warrant shares then issuable upon exercise of the 2010 Warrants (the "Alternate Consideration"). We shall not effect any such Fundamental Transaction unless prior to or simultaneously with the consummation thereof, any successor to us, surviving entity or the corporation purchasing or otherwise acquiring such assets shall assume the obligation to deliver to the holder such Alternate Consideration as the Holder may be entitled to purchase, and the other obligations under the 2010 Warrants.

In lieu of Alternative Consideration received in the event of a Fundamental Transaction, each of the 2010 Warrants also contain a provision permitting the holder to elect to use the Black-Scholes valuation model to receive cash for all unexercised 2010 Warrants at the closing of the Fundamental Transaction.

Rights to Dividends. Each of the 2010 Warrants also permit the holder to receive dividends, cash or otherwise, paid by the Company to any common stockholder at any time while the 2010 Warrants are outstanding. Dividends, cash or otherwise, are payable upon exercise of the 2010 Warrants and no dividends are paid on any unexercised 2010 Warrants.

Delivery of Certificates. Upon the holder's exercise of a 2010 Warrant, we will promptly, but in no event later than three business days after the exercise date, issue and deliver, or cause to be issued and delivered, a certificate for the shares of common stock issuable upon exercise of the 2010 Warrant or deliver the shares electronically through The Depository Trust Corporation through its Deposit Withdrawal Agent Commission System or another established clearing corporation performing similar functions.

If we at any time on or after the issue date of the 2010 Warrants subdivide (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of our outstanding shares of common stock into a greater number of shares, the exercise price shall be multiplied by a fraction of which the numerator shall be the number of shares of common stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of common stock outstanding immediately after such event and the number of shares issuable upon exercise of the 2010 Warrants shall be proportionately adjusted such that the aggregate Exercise Price of the 2010 Warrants shall remain unchanged.

Blocker Provisions. Each of the 2010 Warrants contain various "blocker provisions" whereby they are not exercisable, regardless of whether the Company may require their exercise, if the holder would own greater than 9.99% of the common stock of the Company.

Other Adjustments. The exercise price and the number of shares of common stock purchasable upon the exercise of the 2010 Warrants are subject to adjustment upon the occurrence of specific events, including stock dividends, stock splits, and combinations of our common stock. In addition, if we at any time on or after the issue date of the 2010 Warrant issue any rights, options, warrants, indebtedness or assets (including cash and dividends) to all holders of common stock to the exclusion of the holders of the 2010 Warrants, the exercise price will be subject to further adjustment.

We will provide notice to holders of the 2010 Warrants to provide such holders with a practical opportunity to exercise their 2010 Warrants and hold common stock in order to participate in or vote on the following corporate events:

- if we declare a dividend or distribution of cash, securities or other property in respect of our common stock;
- if we authorize, approve, or enter into any agreement contemplating or soliciting approval for a merger, sale or similar transaction pursuant to which common stock is converted or exchanged for cash, securities or property; or
- if we authorize a voluntary dissolution, liquidation or winding up of our affairs.

Additional Provisions. The above summary of certain terms and provisions of the 2010 Warrants is qualified in its entirety by reference to the detailed provisions of the 2010 Warrants, the form of which has been filed as an exhibit to our Current Report on Form 8-K that we have filed with the SEC in connection with their issuance. We are not required to issue fractional shares upon the exercise of the 2010 Warrants. No holders of the 2010 Warrants will possess any rights as a shareholder under those 2010 Warrants until the holder exercises those 2010 Warrants, except for the dividend rights as described above. The 2010 Warrants may be transferred independent of the common stock they were issued with, on a form of assignment, subject to all applicable laws.

LEGAL MATTERS

Certain legal matters with respect to the securities offered by this prospectus will be passed upon for us by Gallagher & Kennedy, P.A., Phoenix, Arizona. Greenberg Traurig P.A., Boca Raton, Florida, acted as counsel for the underwriters in connection with the offering of the 2011 Warrants. Greenberg Traurig P.A., Boca Raton, Florida acted as counsel for the placement agent in connection with various matters related to the offering of the 2010 Warrants. Schulte Roth & Zabel LLP, New York, New York acted as counsel for the purchaser in connection with various matters related to the offering of the 2010 Warrants.

EXPERTS

The consolidated financial statements of IsoRay and Subsidiaries as of June 30, 2015 and 2014 and for each of the three years in the period ended June 30, 2015 and management’s assessment of the effectiveness of internal control over financial reporting as of June 30, 2015 have been incorporated by reference herein in reliance on the report of DeCoria, Maichel & Teague, P.S., an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

INTERESTS OF NAMED EXPERTS AND COUNSEL

None.

MATERIAL CHANGES

None.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed a registration statement on Form S-3 with the SEC relating to the securities offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. We have omitted parts of the registration statement, as permitted by the rules and regulations of the SEC. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference. For further information with respect to us and the securities offered hereby, reference is made to such registration statement, exhibits and schedules.

We are subject to the information and periodic reporting requirements of the Exchange Act, and in accordance therewith file periodic reports, current reports, proxy statements and other information with the SEC. Such periodic reports, current reports, proxy statements, other information and a copy of this registration statement on Form S-3 may be inspected by anyone without charge and copies of these materials may be obtained upon the payment of the fees prescribed by the SEC, at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. This registration statement on Form S-3 and the periodic reports, current reports, proxy statements and other information filed by us are also available through the Internet web site maintained by the SEC at the following address: http://www.sec.gov.

INCORPORATION BY REFERENCE

This prospectus is part of a registration statement filed with the SEC. The SEC allows us to "incorporate by reference" into this prospectus the information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. The following documents were filed with the SEC pursuant to the Exchange Act and are incorporated by reference and made a part of this prospectus:

- Annual Report on Form 10-K for the fiscal year ended June 30, 2015, filed on September 14, 2015;

- Quarterly Report on Form 10-Q filed on November 9, 2015;

- Current Reports on Form 8-K filed on September 2, 2015, September 15, 2015 and November 10, 2015;

- the description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on April 12, 2007 (File No. 001-333407), including any amendments or reports filed for the purpose of updating such description;

- the description of our rights contained in our Registration Statement on Form 8-A filed on February 7, 2007 (File No. 001-14247), including any amendments or reports filed for the purpose of updating such description; and

- all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), (i) after the date on which this registration statement that includes this prospectus was initially filed with the SEC and prior to the effectiveness of such registration statement, and (ii) after the date of this prospectus and prior to the termination of this offering, unless otherwise stated therein.

Notwithstanding the foregoing, information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K, including the related exhibits, is not incorporated by reference in this prospectus.

Any statement contained herein or made in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein, or in any other subsequently filed document which also is incorporated or deemed to be incorporated by

reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus

We will provide without charge to each person to whom this prospectus is delivered, upon oral or written request, a copy of any or all of the foregoing documents incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the information that this prospectus incorporates). Written or telephone requests should be directed to: IsoRay, Inc., 350 Hills Street, Suite 106, Richland, Washington 99354, telephone number (509) 375-1202, Attn: Corporate Secretary.

You should rely only on the information contained or incorporated by reference in this prospectus or any prospectus supplement. We have not authorized anyone else to provide you with different or additional information. We will not make an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date of those documents.

COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

The Company's Articles of Incorporation provide to directors and officers indemnification to the full extent provided by law, and provide that, to the extent permitted by Minnesota law, a director will not be personally liable for monetary damages to the Company or its shareholders for breach of his or her fiduciary duty as a director, except for liability for certain actions that may not be limited under Minnesota law. The Company has entered into Indemnification Agreements with each of its directors and executive officers, and the Company intends to enter into substantially identical agreements with any officers and directors who take office in the future. The purpose of the Indemnification Agreements is to provide all officers and directors with indemnification to the fullest extent permitted under the Minnesota Business Corporations Act.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, paid by the registrant in connection with the offering (in 2010 and 2011) of the securities being registered.

SEC registration fees	$133
Printing fees and expenses	$0
Legal & accounting fees and expenses	$104,797
Miscellaneous expenses	$10,737
Total	$115,667

Item 15. Indemnification of Directors and Officers.

The Company's Articles of Incorporation provide to directors and officers indemnification to the full extent provided by law, and provide that, to the extent permitted by Minnesota law, a director will not be personally liable for monetary damages to the Company or its shareholders for breach of his or her fiduciary duty as a director, except for liability for certain actions that may not be limited under Minnesota law. The Company has entered into Indemnification Agreements with each of its directors and executive officers, and the Company intends to enter into substantially identical agreements with any officers and directors who take office in the future. The purpose of the Indemnification Agreements is to provide all officers and directors with indemnification to the fullest extent permitted under the Minnesota Business Corporations Act. The Registrant maintains a directors’ and officers’ insurance policy. The policy insures directors and other officers against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses the Registrant for those losses for which the Registrant has lawfully indemnified its directors and officers. The policy contains various exclusions.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

Item 16. Exhibits.

Exhibit Number	Description
1.1	Common Stock Underwriting Agreement, dated October 13, 2011, by and between IsoRay, Inc. and WestPark Capital, Inc., incorporated by reference to the Form 8-K filed on October 13, 2011.
3.3	Restated and Amended Articles of Incorporation incorporated by reference to the Form 10-KSB filed on October 11, 2005.
3.5	Amended and Restated By-Laws of the Company dated as of January 8, 2008, incorporated by reference to the Form 8-K filed on January 14, 2008.
4.19	Rights Agreement, dated as of February 1, 2007, between the Computershare Trust Company N.A., as Rights Agent, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A filed on February 7, 2007.
4.20	Certificate of Designation of Rights, Preferences and Privileges of Series C Junior Participating Preferred Stock, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A filed February 7, 2007.

4.23	Form of Series D Warrant to Purchase Common Stock, incorporated by reference to the Form 8-K filed on November 22, 2010.
4.26	Form of Common Stock Purchase Warrant, incorporated by reference to the Form 8-K filed on October 13, 2011.
5.1	Opinion of Gallagher & Kennedy, P.A., filed herewith.
10.62	Letter Agreement between IsoRay, Inc. and LifeTech Capital, a division of Aurora Capital, LLC, dated October 27, 2010, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.63	Form of Securities Purchase Agreement by and among IsoRay, Inc. and the signatories thereto, dated November 22, 2010, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.64	Form of Lock-Up Agreement, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.65	Amendment Agreement dated as of December 27, 2010, by and among IsoRay, Inc. and the investor that is a signatory thereto, incorporated by reference to the Form 8-K filed on December 28, 2010.
23.1	Consent of Gallagher & Kennedy, P.A. (included in its opinion filed as Exhibit 5.1 hereto).
23.2	Consent of DeCoria, Maichel & Teague, P.S., independent registered public accounting firm, filed herewith.
24.1	Power of Attorney (included on signature page).

Item 17. Undertakings.

a. 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:

i. To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

ii. To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, 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 volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement.

iii.

To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

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Provided however, that: Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

2. That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

b. That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

1. If the Registrant is relying on Rule 430B: Each prospectus filed by the registrant pursuant to Rule 424(b)(3)shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

2. If the Registrant is relying on Rule 430B: Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. 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 effective date, 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 effective date.

c. That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant 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 registrant 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 registrant 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 registrant or used or referred to by the undersigned registrant;

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

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

d. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

e. The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

f. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

g. The undersigned registrant hereby undertakes that:

1. For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this registration statement as of the time it was declared effective.

2. For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Richland, State of Washington, on November 20, 2015.

ISORAY, INC.

By: /s/ Dwight Babcock
Dwight Babcock, Chief Executive Officer

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POWER OF ATTORNEY

We, the undersigned directors and officers of IsoRay, Inc., do hereby constitute and appoint Dwight Babcock and Brien Ragle, or either of them, our true and lawful attorneys and agents, to do any and all acts and things in our name and behalf in our capacities as directors and officers and to execute any and all instruments for us and in our names in the capacities indicated below, which said attorneys and agents, or either of them, may deem necessary or advisable to enable said corporation to comply with the Securities Act of 1933, as amended, and any rules, regulations, and requirements of the Securities and Exchange Commission, in connection with this registration statement, including specifically, but without limitation, power and authority to sign for us or any of us in our names and in the capacities indicated below, any and all amendments (including post-effective amendments) to this registration statement, or any related registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended; and we do hereby ratify and confirm all that the said attorneys and agents, or either of them, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	**Title**	**Date**
/s/ Dwight Babcock Dwight Babcock	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	November 20, 2015
/s/ Brien Ragle Brien Ragle	Chief Financial Officer (Principal Financial and Accounting Officer)	November 20, 2015
/s/ Thomas LaVoy Thomas LaVoy	Director	November 20, 2015
/s/ Philip Vitale Philip Vitale	Director	November 20, 2015
/s/ Michael McCormick Michael McCormick	Director	November 20, 2015

EXHIBIT INDEX

Exhibit Number	Description
1.1	Common Stock Underwriting Agreement, dated October 13, 2011, by and between IsoRay, Inc. and WestPark Capital, Inc., incorporated by reference to the Form 8-K filed on October 13, 2011.
3.3	Restated and Amended Articles of Incorporation incorporated by reference to the Form 10-KSB filed on October 11, 2005.
3.5	Amended and Restated By-Laws of the Company dated as of January 8, 2008, incorporated by reference to the Form 8-K filed on January 14, 2008.
4.19	Rights Agreement, dated as of February 1, 2007, between the Computershare Trust Company N.A., as Rights Agent, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A filed on February 7, 2007.
4.20	Certificate of Designation of Rights, Preferences and Privileges of Series C Junior Participating Preferred Stock, incorporated by reference to Exhibit 1 to the Company's Registration Statement on Form 8-A filed February 7, 2007.
4.23	Form of Series D Warrant to Purchase Common Stock, incorporated by reference to the Form 8-K filed on November 22, 2010.
4.26	Form of Common Stock Purchase Warrant, incorporated by reference to the Form 8-K filed on October 13, 2011.
5.1	Opinion of Gallagher & Kennedy, P.A., filed herewith.
10.62	Letter Agreement between IsoRay, Inc. and LifeTech Capital, a division of Aurora Capital, LLC, dated October 27, 2010, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.63	Form of Securities Purchase Agreement by and among IsoRay, Inc. and the signatories thereto, dated November 22, 2010, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.64	Form of Lock-Up Agreement, incorporated by reference to the Form 8-K filed on November 22, 2010.
10.65	Amendment Agreement dated as of December 27, 2010, by and among IsoRay, Inc. and the investor that is a signatory thereto, incorporated by reference to the Form 8-K filed on December 28, 2010.
23.1	Consent of Gallagher & Kennedy, P.A. (included in its opinion filed as Exhibit 5.1 hereto).
23.2	Consent of DeCoria, Maichel & Teague, P.S., independent registered public accounting firm, filed herewith.
24.1	Power of Attorney (included on signature page).