Perseon Corp Form S-1/A July 17, 2015

As filed with the Securities and Exchange Commission on July 16, 2015 Registration Statement No. 333-203592

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Amendment No. 2

to

FORM S-1 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Perseon Corporation (Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 3845 (Primary Standard Industrial Classification Code Number) 75-1590407 (I.R.S. Employer Identification Number)

2188 West 2200 South Salt Lake City, UT 84120 (801) 952-5555

(Address and telephone number of registrant's principal executive offices)

Clinton E. Carnell Jr. President Perseon Corporation 2188 West 2200 South Salt Lake City, UT 84120 (801) 952-5555

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

Copies to:

Nolan S. Taylor David Marx Dorsey & Whitney, LLP 136 South Main Street, Suite 1000 Salt Lake City, Utah 84101-1685 (801) 933-7363 Robert H. Cohen McDermott Will & Emery LLP 340 Madison Avenue New York, New York, 10173-1922 (212) 547-5400

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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:

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 post-effective amendment filed pursuant to Rule 462(d) 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. "

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.

Large accelerated filer "	Accelerated filer "
Non-accelerated filer "	(Do not check if a smaller reporting
company)	Smaller reporting company x

CALCULATION OF REGISTRATION FEE

		Proposed Maximum		
		Aggregate		mount of
		Offering	R	egistration
Title of Each Class of Securities to be Registered		Price $(1)(2)$]	Fee (3)(4)
Common stock, \$0.001 par value per share	\$	8,000,000.76	\$	929.60
Warrants to purchase common stock (5)				—
Shares of common stock underlying warrants	\$	16,000,001.52	\$	1,859.20
Warrants to be issued to the underwriters(5)				
Common Stock issuable upon exercise of				
underwriters' warrants(6)	\$	440,000.04	\$	51.13
Total Registration Fee	\$	24,440,002.32	\$	2,839.93

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended. Includes offering price of securities that the underwriters have the option to purchase to cover over-allotments, if any.
- (2) Pursuant to Rule 416 under the Securities Act, the securities registered hereby also include an indeterminate number of additional shares of common stock as may from time to time become issuable by reason of stock splits, stock dividends, recapitalizations or similar transactions.
- (3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price of the securities registered hereunder to be sold by the registrant.
- (4) Paid previously.
- (5) No registration fee pursuant to Rule 457 under the Securities Act.

(6) Estimated solely for the purposes of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The warrants to be issued to the underwriters are exercisable at a per share exercise price equal to 110% of the public offering price. As estimated solely for the purpose of recalculating the registration fee pursuant to Rule 457(g) under the Securities Act, the proposed maximum aggregate offering price of the Representative's Warrant is \$440,000.04, which is equal to 110% of \$400,000.04 (5% of \$8,000,000.76).

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant 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 the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION

DATED JULY 16, 2015

Up to 4,092,072 shares of Common Stock and Warrants to purchase up to 8,184,144 shares of Common Stock

We are offering by this prospectus up to 4,092,072 shares of our common stock, \$0.001 par value per share, together with warrants to purchase up to 8,184,144 shares of our common stock. One share of common stock is being sold together with two warrants. Each warrant is exercisable for one share of common stock at an initial exercise price of \$ per share commencing upon consummation of this offering and terminating on the fifth anniversary of the date of issuance.

All costs associated with this registration will be borne by us.

Our common stock is traded on The NASDAQ Capital Market ("NASDAQ") under the symbol "PRSN." Prior to February 25, 2015, our ticker symbol was "BSDM." On July 15, 2015, the last reported sales price of our common stock on NASDAQ was \$1.84 per share. Prior to this offering, there has been no public market for the warrants. We have applied to list the warrants on The NASDAQ Capital Market under the trading symbol "PRSNW." No assurance can be given that such listing will be approved or that a trading market will develop.

Before investing in our common stock and warrants exercisable for common stock, you should carefully read the discussion of "Risk Factors" beginning on page 6. Any investment in our company is highly speculative and could result in the loss of your entire investment.

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.

	Per Share	Per Warrant (2)	Total
Public offering			
price			
Underwriting			
discounts and			
commissions			
(1)			
Offering			
proceeds to us,			
before			
expenses			

- (1) We have agreed to reimburse the underwriters for certain expenses. See "Underwriting."
- (2) One share of common stock is being sold together with two warrants, with each warrant being exercisable for the purchase of one share of common stock.

The above summary of offering proceeds to us does not give effect to any exercise of the warrants being issued in this offering.

The underwriters have an option to purchase from us up to an additional 613,811 shares of common stock and warrants to purchase an additional 1,227,622 shares of common stock at the public offering price, less underwriting discounts and commissions, within 45 days from the date of this prospectus, to cover over-allotments, if any.

This is a firm commitment underwriting. The underwriters expect to deliver the securities to investors on or about , 2015.

Sole Book-Running Manager

Maxim Group LLC

The date of this prospectus is , 2015.

TABLE OF CONTENTS

PROSPECTUS SUMMARY	1
THE OFFERING	4
RISK FACTORS	6
CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS	18
USE OF PROCEEDS	19
PRICE RANGE OF OUR COMMON STOCK	20
DIVIDEND POLICY	21
CAPITALIZATION	22
DILUTION	23
MANAGEMENT	24
LEGAL PROCEEDINGS	25
CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS	26
SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	27
DESCRIPTION OF SECURITIES	28
MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS TO U.S. HOLDERS	33
UNDERWRITING	36
LEGAL MATTERS	39
EXPERTS	39
WHERE YOU CAN FIND MORE INFORMATION	39
INCORPORATION OF DOCUMENTS BY REFERENCE	39

We have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give to you. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

Perseon Corporation's logo and some of our trademarks are used in this prospectus. This prospectus also includes trademarks, tradenames, and service marks that are the property of other organizations. Solely for convenience, our trademarks and tradenames referred to in this prospectus appear without the TM symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

Unless the context requires otherwise, references to "Perseon," the "company," "we," "us" or "our" refer to Perseon Corporation (f/k/a BSD Medical Corporation), a Delaware corporation.

PROSPECTUS SUMMARY

The following information is a summary of the prospectus and it does not contain all of the information you should consider before investing in our securities. You should read the entire prospectus carefully, including the "Risk Factors" section and our financial statements and the notes relating to the financial statements incorporated by reference in this prospectus, before making an investment decision.

Our Company

We develop, manufacture, market and service systems to treat cancer and benign diseases using heat therapy delivered using focused microwave. Our business objectives are to continue to commercialize our products for the treatment of cancer and to further expand our products to treat other diseases and medical conditions. Our product line for cancer therapy has been created to offer hospitals and clinics a solution for thermal treatment of cancer. We have developed intellectual property for our products and we currently distribute them primarily in the United States and Europe.

As part of our recently announced corporate realignment and re-branding which included our new corporate name, Perseon, we plan to focus our efforts on our flagship product, MicroThermX® ("MicroThermX") ablation system that employs precision-guided microwave energy to ablate soft tissue.

Historically, our product offerings have included hyperthermia cancer treatment systems. On April 1, 2015, we sold the assets associated with our hyperthermia cancer treatment systems, including among other assets, certain contracts, inventory, intellectual property, and permits (the "Hyperthermia Assets") pursuant to an Asset Purchase Agreement (the "Hyperthermia Purchase Agreement") with Pyrexar Medical Inc. ("Pyrexar"). As consideration for the Hyperthermia Assets, we received (i) 19.9% of the Series A Preferred Stock of Pyrexar and (ii) a percentage of the gross revenues Pyrexar receives from its sale of hyperthermia cancer treatment systems. Pyrexar also assumed certain liabilities associated with the Hyperthermia Assets. With the sale of the Hyperthermia Assets we will focus our resources on expanding and commercializing our ablation product line.

Our thermal ablation product line includes systems that have been strategically designed to offer minimally invasive thermal energy therapy for treating cancerous tumors. Studies have shown that ablation therapy effectively addresses and even kills certain cancerous tumors on a minimally invasive basis. Thermal ablation usually refers to heat treatments delivered at temperatures above 55°C for short periods of time. Thermal ablation is used to destroy local tumors using a short intense focus of heat on a specific area.

Current and future cancer treatment sites for our systems may include cancers of the prostate, breast, head, neck, bladder, uterus, ovaries, esophagus, liver, kidney, brain, bone, stomach and lung. In addition to these market opportunities, we believe that our technology has application for a number of other medical purposes in addition to cancer.

We recognize revenues from the sale of our ablation cancer treatment systems and related parts and accessories (collectively, product sales), the sale of disposable devices used with certain of our systems, training, service support contracts and other miscellaneous revenues. We also recognize revenues from equipment rental, including fee-per-use rental income from our MicroThermX. Information regarding our revenues, assets, and results of our operations is contained in our financial statements and notes thereto and in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," included in our Transition Report on Form 10-K that is incorporated by reference into this prospectus.

Our current corporate strategy includes the possibility of entering into additional collaborative arrangements with third parties to expand and improve the commercialization of all our products. There can be no assurance that the

exploration of strategic alternatives will result in any agreements or transactions, or that, if completed, any agreements or transactions will be successful or on attractive terms.

Our common stock trades on The NASDAQ Capital Market ("NASDAQ") under the symbol "PRSN." We have applied to list the warrants on The NASDAQ Capital Market under the trading symbol "PRSNW." No assurance can be given that such listing will be approved or that a trading market will develop.

1

Our Contributions to Cancer Therapy

Cancer develops when abnormal cells in a part of the body begin to grow out of control and spread to other parts of the body. According the World Health Organization ("WHO") cancer was the leading cause of death worldwide in 2012 accounting for 8.2 million deaths. The WHO also reported that the number of new cancer cases worldwide in 2012 was expected to increase by 70% from 14 million to 22 million over the next two decades.

Our cancer treatment systems have been developed to both kill cancer directly with heat and to increase the effectiveness of the primary cancer treatments, which are used in conjunction with the heat therapy. Therapies currently used to treat cancer include radiation therapy, chemotherapy, biological therapy, surgery, ablation and hyperthermia.

Because cancer remains a leading cause of death, the current primary cancer therapies are still inadequate, and there is a need for better treatments. We have engineered systems designed to increase the effectiveness of these cancer treatments through the use of precision-focused energy to selectively heat cancer.

Our Products and Services

MicroThermX® Ablation System

Our MicroThermX Ablation System ("MicroThermX") is a compact, mobile, state-of-the-art, proprietary system that includes a microwave generator, single-patient-use disposable antennas with cooling circuit, and a thermistor-based temperature monitoring system. The innovative design of the MicroThermX is the first of its kind that allows delivery of higher power levels using a single generator. The MicroThermX utilizes innovative, proprietary, synchronous wave alignment technology that was developed by us to provide scalable and more uniform zones of ablation during a single procedure.

The MicroThermX introduced into our product line an innovative SynchroWave disposable antenna that is used in each ablation treatment, which we believe will provide a significant ongoing revenue stream after the sale of the system. We expanded the MicroThermX market opportunity by introducing a new SynchroWave short tip ("ST") antenna that can be used to deliver smaller, spherical ablation zones that more accurately target smaller tumors. The existing SynchroWave long tip ("LT") antenna delivers larger ablation zones, reducing the need for multiple serial ablations on larger tumors. The multiple configurations of the SynchroWave antenna provide physicians the ability to precisely target the ablation zone to the numerous sizes and shapes of diseased tissue, significantly increasing the number of cases that can be treated with the MicroThermX. Perseon management estimates the soft tissue ablation world market potential will exceed \$2.3 billion by 2020.

Our Table Top MicroThermX Ablation System ("T2") is designed for our fee-per-use rental program, which is more fully described below. Portability and ease of use are keys to successful implementation of the equipment rental program. The T2 is a small, lightweight, tabletop configuration that has the same advanced features as the original MicroThermX configuration.

The U.S. Food and Drug Administration ("FDA") granted us a 510(k) clearance to market the MicroThermX for ablation of soft tissue. Clearance from the FDA of the 510(k) Premarket Notification submission authorizes the commercial sale of the MicroThermX in the United States. We have also received CE (Conformité Européenne) Marking for the MicroThermX, which allows us to market the MicroThermX in the thirty countries that comprise the European Union ("EU") and the European Free Trade Association ("EFTA"). CE Marking is also recognized in many countries outside of the EU, providing us the ability to market the MicroThermX to a number of international markets. The company recently received clearances from the U.S. Food and Drug Administration ("FDA") to market the

MicroThermX for the specific indications of ablation procedures requiring partial or complete ablation of non-resectable liver tumors and for laparoscopic ablation procedures using image guidance. As further discussed below, we have established distribution in a number of countries and have accepted purchase orders for and have shipped both MicroThermX systems and SynchroWave antennas.

Clinicians have used ablation systems to treat patients with cancers of the liver, lung, bone, and kidneys.

We have placed a select number of MicroThermX systems with pivotal, high-profile, interventional oncology opinion leaders in the United States and through our exclusive European distributor, Terumo Europe NV ("Terumo"). These medical facilities continue to reorder disposable SynchroWave antennas, validating the ongoing revenue stream we anticipate. Existing users of the MicroThermX continue to report positive clinical results in the treatment of cancerous tumors.

These evaluations represent an important milestone in the MicroThermX sales cycle. However, with hospital capital budgeting, committee review and other approvals, the sales cycle for the MicroThermX may extend to well over six months. Political and economic uncertainty in the industry due to recent government healthcare reform and increasing regulatory requirements throughout the world are also slowing hospital acquisition of capital equipment at all levels.

Since May 2013, a significant part of our MicroThermX product's revenue has come from sales into Europe, to our distribution partner, Terumo. Because Terumo has expressed an interest in modifying the terms of their exclusive distribution agreement for our MicroThermX products, we are negotiating with Terumo to modify the agreement. Both Terumo and the Company are interested in extending the duration and purchase requirements of the contract. We cannot yet determine the total impact this may have on our future sales.

With the initial success of our relationship with Terumo, we will continue our strategy to seek out other master distribution arrangements in other substantial geographic medical device markets.

Domestically, we restructured our sales organization and efforts in 2014 by engaging independent, specialized distributors who sell and distribute medical products to healthcare providers. These specialized distributors typically have established relationships with interventional radiologists and other end users of cancer treatment products. Each of these distributors are overseen, trained and serviced by sales managers who are Perseon employees. We believe that we have now expanded our distributor network and direct sales efforts to cover all large metropolitan areas and states, with sales coverage throughout the entire United States.

In February 2015, we initiated a new sales model for our domestic market. Customers have three ways in which they can purchase both our MicroThermX generators and antenna tips. The first is to purchase the generator, which is considered to be capital equipment expenditures, at a price of \$45,000. Antenna tips, in this option, are sold at \$2,700 average selling price ("ASP") per case. With the second option, the MicroThermX generators are provided to customers at no charge. However, in this option, customers must commit to purchasing at least 36 antenna tips in a 12-month period at an ASP of \$2,700 per antenna per case. In the final option, customers pay \$2,500 each time they use the MicroThermX generator. Additionally, the customers buy antenna tips at \$2,700 per antenna per case. With these three options in our sales model, we anticipate to have gross margins ranging from 75 – 85% for our direct (US-only) business, 65 - 70% for our US distribution revenues, and 50 - 55% for our outside of the United States ("OUS") distribution sales.

We are committed to "personal service" to new users of our ablation technique. We provide all of our customers with extensive hands-on training to ensure success in clinical use of the MicroThermX system. Our representatives are experienced interventional sales representatives with seasoned contacts in the field of interventional oncology. Our senior sales management team includes professionals with a long history in marketing medical devices and equipment worldwide.

Marketing and Distribution

MicroThermX. Our U.S. network of direct sales representatives and four domestic specialty distribution firms provide nationwide sales coverage for the MicroThermX line of products.

In addition, in April 2013 we entered into an exclusive, long-term master distribution agreement with Terumo in 100 countries in Europe, Western Asia and Northern Africa. We have a Director of International Sales that manages this relationship, as well as agreements with other international specialty distribution firms. Our marketing and distribution strategy for our MicroThermX business includes seeking out and securing additional master distribution arrangements for our MicroThermX line of products in other parts of the world.

Recent Developments

Consistent with our current corporate strategy to seek collaborative arrangements with third parties to expand and improve the commercialization of all our products, in the first half of 2015, we engaged an investment banker to assist the Company in finding and evaluating potential strategic opportunities and possible transactions to buy assets to

expand the Company, sell assets of the Company, or partner with other parties in an effort to maximize shareholder value. Although the Company is not currently in any active discussions with other parties, we plan to continue investigating potential opportunities as they become available to the Company.

Also, during the first half of 2015, the Company executed on divesting its hyperthermia product line, changed 75% of its leadership team, installed new highly accomplished and proven leaders, replaced 50% of its outside directors, moved its fiscal year-end to December 31 and renamed, rebranded, and repositioned itself to move forward.

Our Corporate Information

Perseon Corporation, formerly BSD Medical Corporation, (the "Company" or "Perseon") was originally incorporated under the laws of the State of Utah on March 17, 1978. On July 3, 1986 the Company was reincorporated in the State of Delaware. In February 2015, we changed the name of the Company to Perseon Corporation.

We changed our fiscal year end for financial reporting from August 31 to December 31, effective for the four months ended December 31, 2014. Our principal executive offices are located at 2188 West 2200 South, Salt Lake City, Utah 84119. Our telephone number is (801) 972-5555. Our website address is www.perseonmedical.com. The information contained on, or that can be accessed through, our website is not incorporated by reference in this prospectus and should not be considered a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

THE OFFERING

Common stock offered by us	4,092,072 shares.
Common stock to be outstanding immediately after this offering	8,184,144 shares (8,722,205 shares if the underwriters exercise their option to purchase additional shares in full)
Warrants offered by us	Warrants to purchase an aggregate of 8,184,144 shares of common stock. The shares of common stock issuable from time to time upon the exercise of the warrants are also being offered pursuant to this prospectus.
Description of warrants	Each warrant will entitle the holder to purchase one share of common stock at an exercise price of \$ per share. See "Description of Securities."
Assumed offering price	An assumed offering price of \$1.84 per share of common stock, which is equal to the closing price of our common stock on July 15, 2015, and an assumed offering price of \$0.115 per warrant. These assumed offering prices are used throughout this prospectus each time the price per share of common stock and the price per warrant, as applicable, is stated.
Common stock outstanding before this offering	4,016,323 shares.
Underwriters' over-allotment option	We have granted the underwriters an option, exercisable within 45 days of the closing of this offering, to purchase up to an additional 15% of the total number of shares of common stock and/or warrants to be offered by us pursuant to this offering, solely for the purpose of covering over-allotments, if any.
Use of proceeds	We estimate that the net proceeds from this offering will be approximately \$7.0 million, or approximately \$8.1 million if the underwriters exercise their over-allotment option in full, at an assumed public offering price of \$1.84 per share of common stock and an assumed offering price of \$0.115 per warrant, after deducting the underwriting commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering as follows: (i) approximately \$1.0 million in research and development expenses.

(ii) approximately \$2.5 million to expand our marketing and selling capabilities, and(iii) approximately \$3.5 million for general working capital needs.

Risk factors	Investing in our securities involves substantial risks. You should read the "Risk Factors" section starting on page 6 for a discussion of factors to consider carefully before deciding to invest in our securities.
The NASDAQ Capital Market symbol for our common stock	PRSN
Proposed NASDAQ Capital Market symbol for the warrants	We have applied to list the warrants on The NASDAQ Capital Market under the trading symbol "PRSNW." No assurance can be given that such listing will be approved or that a trading market will develop.

The number of shares of our common stock outstanding before and after this offering, as set forth in the table above, is based on 4,016,323 shares outstanding as of June 30, 2015 and excludes as of that date:

- 8,184,144 shares of common stock issuable upon exercise of the warrants issued in connection with this offering;
- 985,736 shares of common stock issuable upon the full exercise of previously issued warrants to purchase shares of common stock;
- 559,826 options to purchase shares of our common stock issued under our Fourth Amended and Restated 1998 Directors Stock Plan, our Third Amended and Restated 1998 Stock Incentive Plan and pursuant to an Inducement Grant made to Clint Carnell, Jr.; and
- 102,890 shares of common stock reserved for future grant or issuance under our Fourth Amended and Restated 1998 Directors Stock Plan and our Third Amended and Restated 1998 Stock Incentive Plan.

Unless otherwise indicated, all information in this prospectus:

- Assumes 4,016,323 shares of our common stock outstanding immediately prior to the closing of this offering; and
- Assumes no exercise of any outstanding options or warrants to purchase common stock.

5

RISK FACTORS

An investment in our securities involves a high degree of risk. Before you invest in our securities, you should give careful consideration to the following risk factors, in addition to the other information included in this prospectus, including our financial statements and related notes incorporated by reference herein, before deciding whether to invest in our securities. The occurrence of any of the adverse d