UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

(Mark One)
☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended June 30, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number: 1-10986

MISONIX, INC.

(Exact name of registrant as specified in its charter)

New York	11-2148932
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1938 New Highway, Farmingdale, New York	11735
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (631) 694-9555

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $.01 par value	MSON	Nasdaq Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☐ Yes ☑ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☑ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☑ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☑ Yes ☐ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☑ Non-accelerated filer ☐ Smaller reporting company ☑ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☑ No

The aggregate market value of the voting stock held by non-affiliates of the registrant on December 31, 2018 (computed by reference to the closing price of such stock on such date) was approximately $124.3 million.

There were 9,649,103 shares of Common Stock outstanding at September 3, 2019.

DOCUMENTS INCORPORATED BY REFERENCE

None

USE OF FORWARD-LOOKING STATEMENTS

In this document, we refer to Misonix, Inc. and its subsidiaries (unless the context otherwise requires) as "we," the "Company" or "Misonix." With the exception of historical information contained in this Annual Report, content herein may contain "forward looking statements" that are made pursuant to the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and are subject to uncertainty and changes in circumstances. We cannot guarantee that any forward looking statements will be accurate, although we believe that we have been reasonable in our expectations and assumptions. Investors should realize that if underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results could vary materially from our expectations and projections. These factors include: general economic conditions; delays and risks associated with the performance of contracts; risks associated with international sales and currency fluctuations; uncertainties as a result of research and development; acceptable results from clinical studies, including publication of results and patient/procedure data with varying levels of statistical relevance; risks involved in introducing and marketing new products; regulatory compliance; potential acquisitions; consumer and industry acceptance; litigation and/or contemplated 510(k) filings; our ability to achieve and maintain profitability in our business lines; and, with respect to the pending acquisition of Solsys Medical, LLC, or Solsys, the ability to satisfy the conditions to closing of the proposed transaction, on the expected timing or at all; the occurrence of any event that could give rise to the termination of the merger agreement; the risk of stockholder litigation relating to the proposed transaction, including resulting expense or delay; higher than expected or unexpected costs associated with or relating to the transaction; the risk that expected benefits, synergies and growth prospects of the transaction may not be achieved in a timely manner, or at all; the risk that Solsys' business may not be successfully integrated with Misonix following the closing; the risk that Misonix and Solsys will be unable to retain and hire key personnel; and the risk that disruption from the transaction may adversely affect Misonix's or Solsys' business and relationships with their customers, suppliers or employees. In addition, other factors discussed in this Annual Report, subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K may affect the outcome of forward looking statements. We disclaim any obligation to update any forward-looking statements.

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PART I

Item 1. Business

Overview

Misonix, Inc. is a New York corporation based in Farmingdale, New York and was incorporated in 1967. We design, manufacture and market minimally invasive therapeutic ultrasonic medical devices. Our products enhance clinical outcomes and provide value to physicians, hospitals and patients. We believe that our current focus products have the ability to become standard of care and provide the Company and provide us with a growing revenue stream.

- BoneScalpel® Surgical System, or BoneScalpel, which is used for surgical procedures involving the precise cutting and sculpting of bone while sparing soft tissue. BoneScalpel is now recognized by many surgeons globally as a critical surgical tool enabling improved patient outcomes in the spinal arena.

- SonaStar® Surgical Aspirator, or SonaStar, which is used to emulsify and remove soft and hard tumors, primarily in the neuro and general surgery field.

- SonicOne® Wound Cleansing and Debridement System, or SonicOne, which offers tissue specific debridement and cleansing of wounds and burns for effective removal of devitalized tissue and fibrin deposits while sparing viable cells.

These devices primarily serve the following clinical specialties: neurosurgery, orthopedic surgery, plastic surgery, wound care and maxillo-facial surgery.

In the United States, our products are marketed primarily through a hybrid sales approach. This includes predominately direct sales representatives, managed by regional sales managers, along with independent distributors in areas where we chose not to use direct sales personnel.

Outside the United States, we sell our products to specialty distributors who purchase products from us to resell to their clinical customer bases. We sell to all major markets in the Americas, Europe, Middle East, Asia Pacific and Africa.

Pending Acquisition of Solsys Medical, LLC

On May 2, 2019, we announced our entry into a definitive agreement with Solsys Medical, LLC, or Solsys, a privately held regenerative medical company, to acquire Solsys in an all-stock transaction valued at approximately $97 million, based on the value of our common stock as of May 2, 2019. The planned acquisition of Solsys is expected to substantially broaden Misonix's addressable market through wound care solutions that are complementary to its existing products. Under the terms of the agreement, a new holding company will issue approximately 5.7 million new shares of common stock to Solsys unitholders and current Misonix shareholders will have their shares of the Company's common stock converted into shares of the holding company's common stock on a one-for-one basis. After the completion of the transaction, it is expected that Misonix shareholders immediately prior to the closing will own approximately 64% of the holding company, and Solsys unitholders will own approximately 36%. Misonix will also assume Solsys' outstanding secured debt, with an expected balance of approximately $20 million, upon closing. In addition, the holding company's Board of Directors will consist of five members: Thomas Patton, Stavros Vizirgianakis, and Gwen Watanabe, who are currently serving as directors of Misonix, and Mr. Michael Koby and Mr. Paul LaViolette who are currently serving as directors of Solsys.

The transaction has been approved by both the Misonix Board of Directors and the Solsys Board of Managers. The completion of the acquisition and the issuance of the holding company's shares in connection with the proposed transaction is subject to the approval by Misonix shareholders and the completion of the transaction is subject to approval by 55% of Solsys' Series E unitholders and a majority of its Common unitholders, Series A unitholders, Series B unitholders, Series C unitholders and Series D unitholders, voting as a single class, as well as the satisfaction of certain customary closing conditions. We have scheduled a special shareholder meeting for September 26, 2019 at 10:00 am at the Company's office to allow our shareholders to vote on the transaction and other related matters. We anticipate that the transaction will close in the third quarter of calendar 2019.

Products

All Misonix disposables function with proprietary consoles which essentially convert electrical current into ultrasonic energy via piezo electric crystals in order for the relevant device to produce a therapeutic effect.

Nexus

Nexus is a next-generation integrated ultrasonic surgical platform that combines all the features of our existing solutions, including BoneScalpel, SonicOne and SonaStar, into a single fully integrated platform that will also serve to power future solutions. The Nexus platform is driven by a new proprietary digital algorithm that results in more power, efficiency and control. Nexus uniquely has RF capabilities, allowing for use in general surgery procedures. The device also incorporates Smart Technology that allows for easier setup and use.

Nexus' increased power improves tissue resection rates for both soft and hard tissue removal making it a unique surgical platform for a variety of different surgical specialties. In addition, Nexus' ease of use will enable physicians to fully leverage Nexus' impressive set of capabilities via its digital touchscreen display and smart system setup. Our current ultrasonic applications; BoneScalpel, SonaStar and SonicOne all work on the Nexus generator. This allows a hospital to access all of our product offerings on this all in one console. Nexus received FDA 510(k) clearance in June 2019 and received its CE mark approval in July 2019 for sale in Europe. We have begun a limited release of Nexus in the United States.

BoneScalpel

The BoneScalpel is a state of the art, ultrasonic bone cutting and sculpting system capable of making precise cuts with minimal necrosis, minimal burn artifact, minimal inflammation and minimal bone loss. The device is also capable of preserving surrounding soft tissue structures because of its unique ability to differentiate soft tissue from rigid bone. This device can make precise linear or curved cuts, on any plane, with precision not normally associated with powered instrumentation. The BoneScalpel offers the speed and convenience of a powered instrument without the dangers associated with conventional rotary devices. The effect on surrounding soft tissue is minimal due to the elastic and flexible structure of healthy tissue. This is a significant advantage in anatomical regions like the spine where patient safety is of primary concern. In addition, the linear motion of the blunt, tissue-impacting tips avoids accidental 'trapping' of soft tissue while largely eliminating the high speed spinning and tearing associated with rotary power instruments. The BoneScalpel allows surgeons to improve on existing surgical techniques by creating new approaches to bone cutting and sculpting and removal, leading to substantial time savings and increased operation efficiencies.

SonaStar

The SonaStar System provides powerful precise aspiration following the ultrasonic ablation of hard or soft tissue. The SonaStar has been used for a wide variety of surgical procedures applying both open and minimally invasive approaches, including neurosurgery and liver surgery. The SonaStar may also be used with OsteoSculpt ® probe tips, which enable the precise shaping or shaving of bony structures that prevent open access to partially or completely hidden soft tissue masses.

SonicOne

The SonicOne Ultrasonic Cleansing and Debridement System is a highly innovative, tissue specific approach for the effective removal of devitalized or necrotic tissue and fibrin deposits while sparing viable, surrounding cellular structures. The tissue specific capability is, in part, due to the fact that healthy and viable tissue structures have a higher elasticity and flexibility than necrotic tissue and are more resistant to destruction from the impact effects of ultrasound. The ultrasonic debridement process separates devitalized tissue from viable tissue layers, allowing for a more defined treatment and, usually, a reduced pain sensation. We believe SonicOne establishes a new standard in wound and burn bed preparation, the essential first step in the healing process, while contributing to a faster patient healing.

License and Other Agreements

On October 19, 2017, we entered into a License and Exclusive Manufacturing Agreement, or the Agreement, with Hunan Xing Hang Rui Kang Bio-technologies Co., Ltd., a Chinese corporation, or Hunan, under which we licensed certain manufacturing and distribution rights to our SonaStar product line in China, Hong Kong and Macau, or the Territory, in exchange for payments totaling at least $11,000,000.

Pursuant to the Agreement, Hunan is obligated to pay we: (i) initial amounts consisting of upfront fees and stocking orders totaling $5,000,000, payable in five (5) equal monthly installments of $1,000,000 each; (ii) royalty payments from the sale of SonaStar products in the Territory, including minimum royalty payments of $2,000,000 per calendar year in each of 2019, 2020, and 2021; and (iii) reimbursement of technology transfer costs in an amount up to $1,000,000. The Agreement also provides that Misonix will supply SonaStar products to Hunan at agreed prices during the transition period prior to Hunan's commencement of manufacturing.

During the year ended June 30, 2018, we delivered the licensed SonaStar technology to Hunan, and recorded license revenue of $4,010,000. In addition, during the year ended June 30, 2018, we had delivered the contractually agreed number of SonaStar units to Hunan and had recorded product revenue of $990,000. Hunan had paid all of the $5 million of initial payments to us as of March 31, 2018. No royalty payments had been made as of June 30, 2019.

In October 1996, we entered into a license agreement with Medtronic Minimally Invasive Therapies ("MMIT"). The MMIT license covered the further development of our medical technology relating to vessel sealing products, which uses high frequency sound waves to coagulate and divide tissue for both open and laparoscopic surgery. We developed the AutoSonix product with MMIT under the agreement. As a result of this joint development, we co-own certain patents with MMIT and MMIT paid us a 5% royalty on end user sales. The MMIT license gives MMIT exclusive worldwide marketing and sales rights for this technology and device. Total royalties from sales of this device worldwide were approximately $0 and $525,000, for the fiscal years ended June 30, 2019 and 2018, respectively. The royalty payments are recorded as "other income" in our financial statements. Our license agreement with MMIT expired in August 2017 and no further payments are due thereafter.

We sold our rights to the high intensity focused ultrasound technology to SonaCare Medical, LLC, or SonaCare, in May 2010. Under the terms of the sale agreement, SonaCare was obligated to pay us up to approximately $5.8 million. SonaCare is obligated to pay us 7% of the gross revenues received from its sales of the (i) prostate product in Europe and (ii) kidney and liver products worldwide, until we have received payments of $3 million, and thereafter 5% of the gross revenues, up to an aggregate payment of $5.8 million, all subject to a minimum annual royalty of $250,000. Fiscal 2019 and 2018, payments were $0 and $250,000, respectively, bringing cumulative payments through June 30, 2019 to $2,542,579. SonaCare defaulted on its royalty payment of $250,000 due on March 31, 2019, and we are in discussions with SonaCare regarding this default.

Customers

For the fiscal year ended June 30, 2019, one customer, Zhong Mei Medical Limited, accounted for 11.5% of our revenues. For the fiscal year ended June 30, 2018, one customer, Hunan, accounted for 15.8% of our revenue.

Research & Development

As of June 30, 2019, our research and development organization consisted of a staff of 10 employees including engineers, technical and support personnel. The in-house technical expertise includes mechanical engineering, acoustics, electrical engineering, software development and product design. The research and development group focuses principally on developing new products and supporting existing products. During fiscal 2019 and 2018, we were developing our Nexus next generation surgical platform, including seeking regulatory approval from the U.S. Food and Drug Administration, or the FDA, resulting in higher research and development expenditures in the current fiscal year. Nexus received FDA 510(k) clearance in June 2019.

During fiscal 2019 and 2018, we incurred R&D expenses of $4.5 million and $4.4 million, or 11.5% and 12.0% of revenue, respectively.

Revenue by Region

Our revenues are generated from various regions throughout the world. Our sales outside the United States are made through distributors. Our sales made in the United States are made primarily through our direct sales force and some distributors. The following is an analysis of net sales from continuing operations by geographic region:

	For the years ended June 30,		Net Change	
	2019	2018	2019	2018
Domestic	$ 22,975,708	$ 20,044,363	14.6%	21.8%
International	15,872,783	16,635,463	-4.6%	53.9%
Total	$ 38,848,491	$ 36,679,826	5.9%	34.5%

Our international sales include a concentration in China, aggregating $4.6 million and $7.0 million for fiscal 2019 and 2018, respectively. Fiscal 2018 international sales include $4.0 million of license revenue.

Manufacturing and Supply

We largely manufacture and assemble our medical device products at our production facility located in Farmingdale, New York. Our products include components manufactured by other companies in the United States. We are dependent upon some single source of supply, and are actively working to develop multi-sourced suppliers. We do not have long-term supply agreements. We may encounter difficulty in obtaining materials, supplies and components adequate for our anticipated short-term needs.

Competition

Competition in the medical device products industry is rigorous. We believe that the principal competitive factors in our markets are product features, value-added solutions, reliability and price. Customer support, reputation and efficient distribution are also important factors. The speed with which we can develop products, complete clinical testing and regulatory clearance processes and supply commercial quantities of our products to the market are therefore important competitive factors. We compete with many companies having more significant capital resources, larger research laboratories and more extensive distribution systems than we do. Some of our major competitors are Medtronic, Anspach, Johnson & Johnson, Integra Life Sciences, Inc., Söering, Stryker Corporation and Smith and Nephew.

Regulatory Requirements

Our products are subject to extensive regulation particularly as to safety, efficacy and adherence to FDA Quality System Regulation, or QSR, and related manufacturing standards. Medical device products are also subject to rigorous FDA and other governmental agency regulations in the United States and similar regulations of foreign agencies abroad.

United States

The FDA regulates the design, development, research, preclinical and clinical testing, introduction, manufacture, advertising, labeling, packaging, marketing, distribution, import and export, and record keeping of medical devices in order to ensure that those sold in the United States are safe and effective for their intended use. Non-compliance with applicable requirements can result in import detentions, fines, civil and administrative penalties, injunctions, suspensions or losses of regulatory approvals, recall or seizure of products, operating restrictions, refusal of the government to approve product export applications or allow us to enter into supply contracts and criminal prosecution.

Unless an exemption applies, the FDA requires that a manufacturer introducing a new medical device or a new indication for use of an existing medical device obtain either a Section 510(k) premarket notification clearance or a premarket approval, or PMA, before introducing it into the U.S. market. The type of marketing authorization is generally linked to the classification of the device. The FDA classifies medical devices into one of three classes (Class I, II or III) based on the degree of risk the FDA determines to be associated with a device and the level of regulatory control deemed necessary to ensure the device's safety and effectiveness. Our products currently marketed in the United States are marketed pursuant to 510(k) pre-marketing clearances and are either Class I or Class II devices. The process of obtaining a Section 510(k) clearance generally requires the submission of performance data and often clinical data, which in some cases can be extensive, to demonstrate that the device is "substantially equivalent" to a device that was on the market before 1976 or to a device that has been found by the FDA to be "substantially equivalent" to such a pre-1976 device, a predecessor device is referred to as "predicate device." As a result, FDA clearance requirements may extend the development process for a considerable length of time. In addition, in some cases, the FDA may require additional review by an advisory panel, which can further lengthen the process. The PMA process, which is reserved for new devices that are not substantially equivalent to any predicate device and for high-risk devices or those that are used to support or sustain human life, may take several years and requires the submission of extensive performance and clinical information.

As a medical device manufacturer, our manufacturing facilities are subject to inspection on a routine basis by the FDA. We are required to adhere to applicable regulations setting forth detailed Good Manufacturing Practice, or cGMP, requirements, as set forth in the QSR, which require manufacturers, including our third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all phases of the design and manufacturing process. Noncompliance with these standards can result in, among other things, fines, injunctions, civil penalties, recalls or seizures of products, total or partial suspension of production, refusal of the government to grant 510(k) clearance or PMA approval of devices, withdrawal of marketing approvals and criminal prosecutions.

We must also comply with post-market surveillance regulations, including medical device reporting, or MDR, requirements which require that we review and report to the FDA any incident in which our products may have caused or contributed to a death or serious injury. We must also report any incident in which our product has malfunctioned if that malfunction would likely cause or contribute to a death or serious injury if it were to recur.

Our labeling and promotional activities in the U.S. are also subject to scrutiny by the FDA and, in certain circumstances, by the Federal Trade Commission. Medical devices approved or cleared by the FDA may not be promoted for unapproved or uncleared uses, otherwise known as "off-label" promotion. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including substantial monetary penalties and criminal prosecution.

International

Sales of medical devices outside the United States are subject to regulatory requirements that vary widely from country to country.

EEA

In the European Economic Area, (which is comprised of the 28 Member States of the European Union plus Norway, Iceland and Liechtenstein), or EEA, manufacturers of medical devices need to comply with the Essential Requirements laid out in Annex I to the EU Medical Devices Directive (Council Directive 93/42/EEC). Compliance with these requirements is a prerequisite to be able to affix the CE mark to medical devices, without which they cannot be marketed or sold in the EEA.

All manufacturers placing medical devices into the market in the EEA must comply with the EU Medical Device Vigilance System. Under this system, incidents must be reported to the relevant authorities of the Member States of the EEA, and manufacturers are required to take Field Safety Corrective Actions, or FSCAs, to reduce a risk of death or serious deterioration in the state of health associated with the use of a medical device that is already placed on the market. Where appropriate, our products commercialized in Europe are CE marked and classified as either Class I or Class II.

On April 5, 2017, the European Parliament passed the Medical Devices Regulation, which repeals and replaces the EU Medical Devices Directive. Unlike directives, which must be implemented into the national laws of the EEA member States, the regulations would be directly applicable (*i.e.*, without the need for adoption of EEA member State laws implementing them) in all EEA member States and are intended to eliminate current differences in the regulation of medical devices among EEA member States. The Medical Devices Regulation, among other things, is intended to establish a uniform, transparent, predictable and sustainable regulatory framework across the EEA for medical devices and in vitro diagnostic devices and ensure a high level of safety and health while supporting innovation. The Medical Devices Regulation will however only become applicable three years after publication in May 2020.

Other Regulatory Bodies

Our devices are sold in multiple other countries and often need to be registered with local regulatory bodies such as the National Medical Products Administration in China, Health Canada in Canada, the Therapeutic Goods Administration in Australia, and the Agência Nacional de Vigilância in Brazil.

Other Healthcare Laws

We are subject to a number of laws and regulations that may restrict our business practices, including, without limitation, anti-kickback, false claims, physician payment transparency and data privacy and security laws. The government has interpreted these laws broadly to apply to the marketing and sales activities of manufacturers and distributors like us.

Foreign Corrupt Practices Act

We are subject to the Foreign Corrupt Practices Act of 1977, as amended, or FCPA. The FCPA prohibits U.S. companies and their representatives from processing, offering, or making payments of money or anything of value to foreign officials with the intent to obtain or retain business or seek a business advantage. In certain countries, the health care professionals we or our distributors regularly interact with may meet the definition of a foreign government official for the purposes of the FCPA. Our international activities create the risk of unauthorized payments or offers of payments by our employees, consultants and agents, including distributors, even though they may not always be subject to our control. Our existing safeguards may prove to be less than effective, and our employees, consultants, and agents may engage in conduct for which we might be held responsible. A determination that our operations or activities are not, or were not, in compliance with U.S. or foreign laws or regulations could result in the imposition of substantial fines, interruptions of business, loss of suppliers, vendor or other third-party relationships, termination of necessary licenses or permits, and legal or equitable sanctions. Other internal or governmental investigations or legal or regulatory proceedings, including lawsuits brought by private litigants, may also follow as a consequence.

ISO Standards

We also operate and maintain a Quality Management System which complies with the requirements of International Standards ISO 13485: 2012 + AC:2012, Health Canada CAN/CSA ISO 13485:2003, and US 21 CFR Part 820 Quality System Regulation. This system encompasses the principle of enhancing customer satisfaction through the effective application of the system, including processes for control, monitoring, and continual improvement, which is designed to insure that we consistently meet or exceed customer expectations and applicable statutory/regulatory requirements.

Trademarks, Patents, and Copyrights

Patents, trademarks and other intangible proprietary rights are essential to our business and our ability to compete effectively with other companies. We also rely upon trade secrets, know-how, continuing technological innovations, strategic alliances and licensing opportunities to develop, maintain and strengthen our competitive position. We pursue a policy of generally obtaining patent protection in both the U.S. and overseas for patentable subject matter in our products and also attempt to review third-party patents and patent applications to the extent publicly available to develop an effective patent strategy, avoid infringement of third-party patents, identify licensing opportunities and monitor the patent claims of others.

We currently own 60 U.S. patents and 49 foreign patents. In addition, we have 23 pending U.S. patent applications and 73 pending foreign patent applications. Patents relating to our Nexus product are scheduled to expire in 2028. Other patents that we consider important to our business will expire from 2025 to 2036, although we do not currently believe that the expiration of other patents will have a material effect on our business.

We also hold 13 trademarks protecting the Misonix name and our product names.

We will continue to seek patent, trademark, and copyright protections as we deem advisable to protect the markets for our products and to support our research and development efforts.

Backlog

As of June 30, 2019, our backlog (firm orders that have not yet been shipped) was approximately $900,000 as compared to $210,000 as of June 30, 2018. We ship most of our products on a just in time basis, which results in low levels of backlog. However, the backlog at June 30, 2019 was higher than normal due to various stock shortages.

Employees

As of June 30, 2019, we employed a total of 125 full-time employees. We consider our relationship with our employees to be good.

Website Access Disclosure

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K are available free of charge on our website at www.misonix.com as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. Copies of our Annual Report will be made available to shareholders, free of charge, upon written request.

Item 1A. Risk Factors.

In addition to the other information contained in this Annual Report and the exhibits hereto, the following risk factors should be considered carefully in evaluating our business. Our business, financial condition and/or results of operations could be materially adversely affected by any of these risks. This section contains forward-looking statements. Additional risks not presently known to us or that we currently deem immaterial may also adversely affect our business, financial condition and/or results of operations. The following list sets forth many, but not all, of the factors that could impact our ability to achieve results discussed in any forward-looking statement. Investors should understand that it is not possible to predict or identify all such factors and should not consider this list to be a complete statement of all potential risks and uncertainties.

Risks Related to Our Business

We have a recent history of net losses.

We have experienced losses from continuing operations during the last four fiscal years. The loss from continuing operations before income taxes was approximately $7.4 million for the 2019 fiscal year, and the accumulated deficit was approximately $21.9 million as of June 30, 2019. There can be no assurance that we will be able to return to operating profitability in the near-term or at all. As of June 30, 2019, we had a cash balance of approximately $7.8 million. Although we believe this amount is sufficient to finance our operations for at least the next 12 months, there can be no assurance that this will provide sufficient liquidity for longer-term operations or initiatives. Our cash flows may be impacted by a number of factors, including changing market conditions, market acceptance of our new and existing products, and the loss of one or more key customers. There can be no assurance that we will be successful in raising additional capital if the need arises. The failure to raise any necessary additional capital on acceptable terms, or at all, may have a material adverse effect on our future business and results of operations.

We may incur a certain indebtedness and will require cash to service any indebtedness we incur. This cash may not be readily available to us.

Our ability to make payments on, or repay or refinance, any indebtedness and fund planned capital expenditures will depend largely upon our future operating performance. Our future performance, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. We cannot be certain we will generate sufficient cash flow from operations or that future borrowings will be available in amounts sufficient to enable us to pay any indebtedness or to fund our other liquidity needs.

We are subject to extensive medical device regulation which may impede or hinder the approval process for our products and, in some cases, may not ultimately result in approval or may result in the recall or seizure of previously approved products.

Our medical devices and our business activities are subject to rigorous regulation, including by the FDA, the DOJ and numerous other federal, state and foreign governmental authorities including the imposition of international trade sanctions and tariffs. Certain state governments and the federal government have enacted legislation aimed at increasing transparency of our interactions with health care providers. Any failure to comply with these legal and regulatory requirements could impact our business.

These regulations include regulations pursuant to the Federal Food, Drug, and Cosmetic Act, or the FDC Act, by the FDA and comparable agencies in foreign countries, and by other regulatory agencies and governing bodies. Under the FDC Act, medical devices must receive FDA clearance or approval before they can be commercially marketed in the U.S. In addition, most major markets for medical devices outside the U.S. require clearance, approval or compliance with certain standards before a product can be commercially marketed. The process of obtaining marketing approval or clearance from the FDA for new products, or with respect to enhancements or modifications to existing products, could:

- take a significant amount of time;
- require the expenditure of substantial resources;
- involve rigorous pre-clinical and clinical testing;
- require changes to the products; and
- result in limitations on the proposed uses of the products

Marketing approvals or clearances are not the only risk. The FDA, and other regulatory bodies, also can require the withdrawal of an approved or cleared product from commercial distribution due to failure to comply with regulatory standards or the occurrence of unforeseen problems.

As a medical device manufacturer, we are required to register with the FDA and are subject to periodic inspection by the FDA for compliance with the FDA's Quality System Regulation requirements, which require manufacturers of medical devices to adhere to certain regulations, including testing, quality control and documentation procedures. In addition, FDA regulations require us to provide information to the FDA whenever there is evidence that reasonably suggests that a medical device may have caused or contributed to a death or serious injury or, if a malfunction were to occur, could cause or contribute to a death or serious injury. Compliance with applicable regulatory requirements is subject to continual review and is rigorously monitored through periodic inspections by the FDA. In the European Union and China, we are required to maintain certain ISO certifications in order to sell our products and must undergo periodic inspections by notified bodies to obtain and maintain these certifications. Failure to meet regulatory quality standards could have a material adverse effect on our business, financial condition or results of operations.

Consequently, there can be no assurance that we will receive the required clearances from the FDA or other regulatory bodies for new products or modifications to existing products on a timely basis or that any FDA approval will not be subsequently withdrawn. Later discovery of previously unknown problems with a product or manufacturer could result in fines, delays or suspensions of regulatory clearances, seizures or recalls of products, operating restrictions and/or criminal prosecution. The failure to receive product approval clearance on a timely basis, suspensions of regulatory clearances, seizures or recalls of products or the withdrawal of product approval by the FDA or other regulatory bodies could have a material adverse effect on our business, financial condition or results of operations.

We face intense competition and may not be able to keep pace with the rapid technological changes in the medical device industry.

The medical device product market is highly competitive. We encounter significant competition across our product lines and in each market in which our products are sold from various medical device companies, most of which have greater financial and marketing resources than we do.

Additionally, the medical device product market is characterized by extensive research and development and rapid technological change. Developments by other companies of new or improved products, processes or technology may make our products or proposed products obsolete or less competitive and may negatively impact our revenues. In some cases, foreign companies may attempt to copy our designs illegally. We are required to devote continued efforts and financial resources to develop or acquire scientifically advanced technologies and products, apply our technologies cost-effectively across product lines and markets, attract and retain skilled development personnel, obtain patent and other protection for our technology and products, obtain required regulatory and reimbursement approvals and successfully manufacture and market our products. Failure to develop new products or enhance existing products could have a material adverse effect on our business, financial condition or results of operations.

We may not be able to effectively protect our intellectual property rights.

Patents, trademarks and other intangible proprietary rights are and will be essential to our business and its ability to compete effectively with other companies. We will also rely upon trade secrets, know-how, continuing technological innovations, strategic alliances and licensing opportunities to develop, maintain and strengthen our competitive position. We will pursue a policy of generally obtaining patent protection in both the U.S. and overseas for patentable subject matter in its proprietary devices and also attempt to review third-party patents and patent applications to the extent publicly available to develop an effective patent strategy, avoid infringement of third-party patents, identify licensing opportunities and monitor the patent claims of others. We also operate in an industry that is susceptible to significant intellectual property litigation and it has been common for companies in the medical device field to aggressively challenge the patent rights of other companies in order to prevent the marketing of new devices. Intellectual property litigation is expensive, complex and lengthy and its outcome is difficult to predict. Future patent litigation may result in significant royalty or other payments or injunctions that can prevent the sale of products and may significantly divert the attention of our technical and management personnel.

In addition, we may have to take legal action in the future to protect our patents, trade secrets or know-how or to assert our intellectual property rights against claimed infringement by others. Any legal action of that type could be costly and time consuming to us and no assurances can be made that any lawsuit will be successful.

The invalidation of key patents or proprietary rights that we own, or an unsuccessful outcome in lawsuits to protect our intellectual property, could have a material adverse effect on our business, financial condition or results of operations. In the event that our right to market any of our products is successfully challenged, or if we fail to obtain a required license or are unable to design around a patent, our business, financial condition or results of operations could be materially adversely affected.

eSecurity breaches, loss of data and other disruptions could compromise sensitive information related to our business, prevent us from accessing critical information or expose us to liability, which could adversely affect our business and reputation.

In the ordinary course of our business, we collect and store sensitive data, including patient health information, personally identifiable information about its employees, intellectual property, and proprietary business information. We manage and maintain applications and data utilizing on-site and off-site systems. These applications and data encompass a wide variety of business-critical information including research and development information, commercial information and business and financial information.

The secure processing, storage, maintenance and transmission of this critical information is vital to our operations and business strategy, and we devote resources to protecting such information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers, viruses, breaches or interruptions due to employee error or malfeasance, terrorist attacks, hurricanes, fire, flood, other natural disasters, power loss, computer systems failure, data network failure, internet failure, or lapses in compliance with privacy and security mandates. Any such virus, breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, government enforcement actions and regulatory penalties. Unauthorized access, loss or dissemination could also interrupt our operations, including our ability to receive and ship orders from customers, bill our customers, provide customer support services, conduct research and development activities, process and prepare company financial information, manage various general and administrative aspects of our business and damage our reputation, any of which could adversely affect our business.

Future product liability claims and other litigation may adversely affect our business, reputation and ability to attract and retain customers.

The design, manufacture and marketing of medical device products of the types that we produce entail an inherent risk of product liability claims. A number of factors could result in an unsafe condition or injury to, or death of, a patient with respect to these or other products that we manufacture or sell, including component failures, manufacturing flaws, design defects or inadequate disclosure of product-related risks or product-related information. These factors could result in product liability claims, a recall of one or more of our products or a safety alert relating to one or more of our products. Product liability claims may be brought by individuals or by groups seeking to represent a class.

Anyone or any company can bring an action against Misonix, including private securities litigation and shareholder derivative suits, and adverse litigation results could affect our business.

Our judicial system allows anyone, including shareholders, to bring a claim against the Company and force the Company to defend itself even if the claim is baseless. The defense may or may not be covered by the Company's insurance, the result of which could ultimately create a burden on the Company dependent upon the outcome.

Litigation can be lengthy, expensive and disruptive to our operations, and results cannot be predicted with certainty. An adverse decision could result in monetary damages or injunctive relief that could affect our financial condition or results of operations.

On March 23, 2017, the Company's former distributor in China, Cicel (Beijing) Science & Technology Co., Ltd., filed a lawsuit against the Company and certain officers and directors of the Company in the United States District Court for the Eastern District of New York, alleging that the Company improperly terminated its contract with the former distributor. The complaint sought various remedies, including compensatory and punitive damages, specific performance and preliminary and post judgment injunctive relief, and asserted various causes of action, including breach of contract, unfair competition, tortious interference with contract, fraudulent inducement, and conversion. On October 7, 2017, the court granted the Company's motion to dismiss all of the tort claims asserted against it, and also granted the individual defendants' motion to dismiss all claims asserted against them. The only claim currently remaining in the case is for breach of contract against the Company; the plaintiff has moved to amend its complaint to add tort claims, which the Company has opposed. The court has not yet ruled on the motion to amend. The Company believes it has various legal and factual defenses to the allegations in the complaint and intends to vigorously defend the action. Fact discovery in the case is ongoing and there is no trial date currently set.

On June 6, 2017, Irving Feldbaum, an individual shareholder of Misonix, filed a lawsuit in the U.S. District Court for the Eastern District of New York. The complaint alleges claims against the Company's board of directors, its former CEO and CFO, certain of its former directors, and the Company as a nominal defendant for alleged violations of Section 14(a) of the Securities Exchange Act of 1934 and state law claims for breach of fiduciary duty, waste of corporate assets, and unjust enrichment. The complaint alleges that the Company incurred damages as a result of alleged false and misleading statements in the Company's securities filings concerning the Company's business, operations, prospects and the Company's internal control over financial reporting. The complaint also alleges that the Company's February 4, 2016 Proxy Statement contained false and misleading statements regarding executive compensation. The complaint seeks the recovery of damages on behalf of the Company and the implementation of changes to corporate governance procedures. On June 16, 2017, Michael Rubin, another individual shareholder of Misonix, filed a case alleging similar claims in the same district court. On July 21, 2017, the district court consolidated the two actions for all purposes. On July 26, 2019, the district court approved the settlement. Under the terms of the settlement, the Company has agreed to undertake and maintain in place certain corporate governance reforms for a period of time, and to pay counsel for Mr. Feldbaum and Mr. Rubin attorneys' fee of $500,000, which has been paid by Misonix's insurance carrier.

Violation of anti-corruption laws could subject the Company to significant penalties which would materially affect our business and liquidity.

We are required to comply with the Foreign Corrupt Practices Act, or FCPA, and similar anti-corruption laws in other jurisdictions around the world where we do business. Compliance with these laws has been subject to increasing focus and activity by regulatory authorities in recent years.

With the assistance of outside counsel, beginning in 2016 we conducted a voluntary investigation into the business practices of the independent Chinese entity that previously distributed our products in China and our knowledge of those business practices, which may have had implications under the FCPA, as well as into various internal control issues identified during the investigation. We did not identify any information through the investigation or otherwise that suggests that our previously reported financial statements are incorrect. On September 27, 2016 and September 28, 2016, we voluntarily contacted the SEC and the DOJ, respectively, to advise both agencies of these potential issues. Thereafter, we provided documents and information to, and cooperated fully with, the SEC and the DOJ, in their investigations of these matters.

On June 18, 2019, we received a letter from the Division of Enforcement of the SEC advising us that the SEC had concluded its investigation of us and that, based on the information it had as of the date of the letter, it did not intend to recommend an enforcement action by the SEC against us. On August 14, 2019, we received a declination letter from the United States Department of Justice DOJ stating that the DOJ has closed its inquiry into us without any action.

Although neither the SEC or DOJ have taken any enforcement action in these matters, our investigative costs, including costs of shareholder litigation relating to these matters (which has now been settled), are approximately $3.9 million to date, of which $0.8 million, $0.5 million and $2.4 million was charged to expense during the three years ended June 30, 2019, respectively.

Future actions by our employees, or third-party intermediaries acting on our behalf, in violation of anticorruption laws, including the FCPA, whether carried out in the United States or elsewhere in connection with the conduct of our business may expose us to liability for violations and significant costs and expenses in investigating such actions or defending against civil or criminal charges associated therewith and accordingly may have a material adverse effect on our reputation and our business, financial condition or results of operations.

Our future growth is dependent upon the development of new products and line extensions, which requires significant research and development, clinical trials and regulatory approvals, all of which are very expensive and time-consuming and may not result in a commercially viable product.

In order to develop new products and improve current product offerings, we focus our research and development programs largely on the development of next-generation and novel technology offerings across multiple programs and opportunities.

As a part of the regulatory process of obtaining marketing clearance from the FDA for new products, we conduct and participate in numerous clinical trials with a variety of study designs, patient populations and trial endpoints. Unfavorable or inconsistent clinical data from existing or future clinical trials conducted by us, by our competitors or by third parties, or the market's perception of this clinical data, may adversely impact our ability to obtain product approvals from the FDA, our position in, and share of, the markets in which we participate and our business, financial condition, results of operations or future prospects.

New products may not be accepted by customers in the marketplace.

We are now, and will continue to be, developing new products and introducing them into the market. There can be no assurance that any new product will be accepted by the market. New products are sometimes introduced into the market in a prototype format and may need later revisions or design changes before they operate in a manner to be accepted in the market. As a result of the introduction of new products, there is some risk that revenue expectations may not be met and in some cases the product may not achieve market acceptance.

Consolidation in the healthcare industry could lead to demands for price concessions or the exclusion of the Company as supplier from certain of our significant market segments.

The cost of healthcare has risen significantly over the past decade and numerous initiatives and reforms initiated by legislators, regulators and third-party payers to curb these costs have resulted in a consolidation trend in the healthcare industry, including hospitals. This in turn has resulted in greater pricing pressures and the exclusion of certain suppliers from important market segments as group purchasing organizations, independent delivery networks and large single accounts continue to consolidate purchasing decisions for some of our hospital customers. We expect that market demand, government regulation, third-party reimbursement policies and societal pressures will continue to change the worldwide healthcare industry, resulting in further business consolidations and alliances among our customers and competitors, which may reduce competition, exert further downward pressure on the prices of our products and may adversely impact our business, financial condition or results of operations.

We may experience disruption in supply due to our dependence on our suppliers to continue to ship product requirements and our inability to obtain suppliers of certain components for our products.

Our suppliers may encounter problems during manufacturing due to a variety of reasons, including poor business practices, failure to follow specific protocols and procedures, failure to comply with applicable regulations, equipment malfunctions, labor shortages or environmental factors. In addition, we purchase both raw materials used in our products and finished goods from various suppliers and may have to rely on a single source supplier for certain components of our products where there are no alternatives are available. Although we anticipate that we have adequate sources of supply and/or inventory of these components to handle our production needs for the foreseeable future, if we are unable to secure on a timely basis sufficient quantities of the materials we depend on to manufacture our products, if we encounter delays or contractual or other difficulties in our relationships with these suppliers, or if we cannot find suppliers at an acceptable cost, then the manufacture of our products may be disrupted, which could increase our costs and have a material adverse effect on our business. For example, in fiscal 2019, we experienced certain supply chain disruptions due to suppliers not being able to keep pace with our demand for materials and product. These disruptions caused us to not be able to ship certain customer orders on time, creating a sales backlog which was higher than normal.

If we fail to manage any expansion or acquisition, our business could be impaired.

We may in the future acquire one or more technologies, products or companies that complement our business. We may not be able to effectively integrate these into our business and any such acquisition could bring additional risks, exposures and challenges to the Company. In addition, acquisitions may dilute our earnings per share, disrupt our ongoing business, distract our management and employees, increase our expenses, subject us to liabilities and increase our risk of litigation, all of which could harm our business. If we use cash to acquire technologies, products, or companies, such use may divert resources otherwise available for other purposes. If we use our common stock to acquire technologies, products, or companies, our shareholders may experience substantial dilution. If we fail to manage any expansions or acquisition, our business could be impaired. For specific risks related to the proposed acquisition of Solsys see "Risks Related to the Proposed Acquisition of Solsys."

Our agreements and contracts entered into with partners and other third parties may not be successful.

We signed in the past and may pursue in the future agreements and contracts with third parties to assist in our marketing, manufacturing, selling and distribution efforts. We cannot assure you that any agreements or contracts entered into will be successful.

The fluctuation of our quarterly results may adversely affect the trading price of our common stock.

Our revenues and results of operations have in the past and will likely vary in the future from quarter to quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate. You should not rely on quarter-to-quarter comparisons of our results of operations as an indication of our future performance. It is likely that in some future quarters, our results of operations may be below the expectations of the Company's public market analysts and investors. In this event, the price of our common stock may fall.

We may not be able to attract and retain additional key management, sales and marketing and technical personnel, or we may lose existing key management, sales and marketing or technical personnel, which may delay our development and marketing efforts.

We depend on a number of key management, sales and marketing and technical personnel. The loss of the services of one or more key employees could delay the achievement of our development and marketing objectives. Our success will also depend on our ability to attract and retain additional highly qualified management, sales and marketing and technical personnel to meet our growth goals. We face intense competition for qualified personnel, many of whom are often subject to competing employment offers, and we do not know whether we will be able to attract and retain such personnel.

Future changes in financial accounting standards or practices or existing taxation rules or practices may cause adverse or unexpected revenue fluctuations and affect our reported results of operations.

A change in accounting standards or practices or a change in existing taxation rules or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and taxation rules and varying interpretations of accounting pronouncements and taxation practice have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may adversely affect our reported financial results or the way we conduct our business.

Risk of reprocessing disposables.

In some jurisdictions around the world, culture and practice encourages reuse of disposable products when the product is clearly labeled for single use. Such reuse may expose us to liability in these jurisdictions.

Our management has concluded that our disclosure controls and procedures and internal control over financial reporting are ineffective due to the existence of a material weakness in our internal control over financial reporting. If we are unable to establish and maintain effective disclosure controls and internal control over financial reporting, our ability to produce accurate financial statements on a timely basis could be impaired, and the market price of our securities may be negatively affected.

A material weakness (as defined in Rule 12b-2 under the Exchange Act) is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis. We carried out an evaluation, under the supervision and with the participation of management, of the effectiveness of the design and operation of our disclosure controls and procedures as of June 30, 2019. Based upon this evaluation, management has identified a deficiency related to the design of a process level control to address the completeness and accuracy of unrecorded liabilities at June 30, 2019.

Specifically, the Company identified one invoice related to legal fees which was properly approved and submitted to the accounts payable department for posting, however such invoice was erroneously posted into the month of July 2019 instead of June 2019 as the result of a keypunch error. The Company's finance personnel failed to promptly identify this error and this deficiency allowed for the potential for other invoices to be misapplied. See Part II, Item 9A "Controls and Procedures".

To remediate this weakness, the Company has implemented controls to review and verify that open accounts payable invoices, in addition to invoices paid after period end, are entered into the correct accounting period. This error was corrected and impacted the balance sheet only, and did not impact the statement of operations. If we are unable to remediate this material weakness in our internal control over financial reporting, or if we identify additional material weaknesses in our internal control over financial reporting, our management will be unable to assert in future reports that our disclosure controls and procedures and our internal control over financial reporting are effective. This could cause investors, counterparties and customers to lose confidence in the accuracy and completeness of our financial statements and reports and have a material adverse effect on our liquidity, access to capital markets and perceptions of our creditworthiness and/or a decline in the market price of our common stock. In addition, we could become subject to investigations by Nasdaq, the SEC or other regulatory authorities, which could require additional financial and management resources. These events could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to the Proposed Acquisition of Solsys

We are subject to various risks related to the proposed acquisition of Solsys.

We have entered into a merger agreement with Solsys pursuant to which we will acquire Solsys. The risks, contingencies and other uncertainties that could result in the failure of the proposed acquisition to be completed or, if completed, that could have a material adverse effect on our business, financial condition or results of operations following the proposed acquisition, and any anticipated benefits of the proposed acquisition, include:

- the failure to obtain necessary stockholder approvals for the share issuance and the adoption of the merger agreement;
- the failure to satisfy required closing conditions or complete the proposed acquisition in a timely manner or at all;
- the effect of the announcement of the proposed acquisition on each company's ability to retain and hire key personnel, maintain business relationships, and on operating results and the businesses generally;
- the effect of restrictions placed on Solsys' business activities and ability to pursue alternatives to the proposed acquisition pursuant to the merger agreement;
- the potential impact of the proposed acquisition on our stock price;
- the incurrence of significant transaction related costs in connection with the proposed acquisition that are, and will be, incurred regardless of whether the proposed acquisition is completed; and
- the occurrence of any event giving rise to the right to terminate the merger agreement.

Our future results following the proposed acquisition will suffer if we do not effectively manage the expanded operations or successfully integrate the businesses of Solsys.

Our future success will depend, in part, upon our ability to manage the expanded business, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. If we are not able to successfully combine the businesses of Misonix and Solsys in an efficient and effective manner, the anticipated benefits may not be realized fully, or at all, or may take longer to realize than expected, and the value of our common stock may be affected adversely. An inability to realize the full extent of the anticipated benefits of the proposed acquisition, as well as any delays encountered in the integration process, could have an adverse effect upon on our business, financial condition or results of operations. In addition, the actual integration may result in additional and unforeseen expenses.

Uncertainties associated with the transactions may cause employees to leave Misonix or Solsys and may otherwise affect our future business and operations.

Our success after completion of the proposed acquisition will depend in part upon our ability to retain key employees. Prior to and following the proposed acquisition, current and prospective employees of Misonix and Solsys may experience uncertainty about their future roles and choose to pursue other opportunities, which could have an adverse effect on our business, financial condition or results of operations. If key employees depart, the integration of the two companies may be more difficult and our business following the proposed acquisition could be adversely affected.

Failure to complete the proposed acquisition may negatively impact our share price and the future business and our financial results.

The merger agreement provides that either we or Solsys may terminate the merger agreement if the proposed acquisition is not completed on or before November 2, 2019.

If the proposed acquisition is not completed on a timely basis, our and Solsys' ongoing businesses may be adversely affected. If the proposed acquisition is not completed at all, we will be subject to a number of risks, including the following:

- being required to pay costs and expenses relating to the transactions, such as legal, accounting, financial advisory and printing fees; and
- time and resources committed by our management to matters relating to the proposed acquisition could otherwise have been devoted to pursuing other beneficial opportunities.

If the proposed acquisition is not completed, the price of our common stock may decline to the extent that the current market price reflects a market assumption that the proposed acquisition will be completed and that the related benefits will be realized, or a market perception that the proposed acquisition was not completed due to an adverse change in our business.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We occupy approximately 34,400 square feet at 1938 New Highway, Farmingdale, New York pursuant to a lease expiring on September 30, 2020. Under the lease, we pay rent of approximately $29,000 a month, which includes a pro rata share of real estate taxes, water, sewer and other charges which are assessed on the leased premises or the land upon which the leased premises is situated. We believe that the leased facilities are adequate for our present needs.

Item 3. Legal Proceedings.

FCPA Investigation

With the assistance of outside counsel, beginning in 2016 we conducted a voluntary investigation into the business practices of the independent Chinese entity that previously distributed our products in China and our knowledge of those business practices, which may have had implications under the FCPA, as well as into various internal control issues identified during the investigation. We did not identify any information through the investigation or otherwise that suggests that our previously reported financial statements are incorrect. On September 27, 2016 and September 28, 2016, we voluntarily contacted the SEC and the DOJ, respectively, to advise both agencies of these potential issues. Thereafter, we provided documents and information to, and cooperated fully with, the SEC and the DOJ in their investigations of these matters.

On June 18, 2019, we received a letter from the Division of Enforcement of the SEC advising us that the SEC had concluded its investigation of us and that, based on the information it had as of the date of the letter, it did not intend to recommend an enforcement action by the SEC against us. On August 14, 2019, we received a declination letter from the United States Department of Justice DOJ stating that the DOJ has closed its inquiry into us without any action.

Although neither the SEC or DOJ have taken any enforcement action in these matters, our investigative costs to date, including costs of shareholder litigation relating to these matters (which has now been settled), are $3.9 million to date, of which $0.8 million, $0.5 million and $2.4 million was charged to expense during the three years ended June 30, 2019, respectively.

Former Litigation with Chinese Distributor

On March 23, 2017, our former distributor in China, Cicel (Beijing) Science & Technology Co., Ltd., filed a lawsuit against us and certain of our officers and directors of in the United States District Court for the Eastern District of New York, alleging that we improperly terminated our contract with the former distributor. The complaint sought various remedies, including compensatory and punitive damages, specific performance and preliminary and post judgment injunctive relief, and asserted various causes of action, including breach of contract, unfair competition, tortious interference with contract, fraudulent inducement, and conversion. On October 7, 2017, the court granted our motion to dismiss all of the tort claims asserted against us, and also granted the individual defendants' motion to dismiss all claims asserted against them. The only claim currently remaining in the case is for breach of contract against us; the plaintiff has moved to amend its complaint to add tort claims, which we have opposed. The court has not yet ruled on the motion to amend. We believe that we have various legal and factual defenses to the allegations in the complaint, and intend to vigorously defend the action. Fact discovery in the case is ongoing, and there is no trial date currently set.

Former Stockholder Derivative Litigation

On June 6, 2017, Irving Feldbaum, an individual shareholder of Misonix, filed a lawsuit in the U.S. District Court for the Eastern District of New York. The complaint alleges claims against our board of directors, our former CEO and CFO, certain of our former directors for breach of fiduciary duty, waste of corporate assets, and unjust enrichment, and against us as a nominal defendant for alleged violations of Section 14(a) of the Securities Exchange Act of 1934. The complaint alleges that we incurred damages as a result of alleged false and misleading statements in our securities filings concerning our business, operations, prospects and our internal control over financial reporting. The complaint also alleges that our February 4, 2016 Proxy Statement contained false and misleading statements regarding executive compensation. The complaint also seeks the recovery of damages on our behalf and the implementation of changes to corporate governance procedures. On June 16, 2017, Michael Rubin, another individual shareholder of Misonix, filed a case alleging similar claims in the same district court. On July 21, 2017, the district court consolidated the two actions for all purposes. On July 26, 2019, the district court approved the settlement of these actions. Under the terms of the settlement, we agreed to undertake and maintain in place certain corporate governance reforms for a period of time, and to pay counsel for Mr. Feldbaum and Mr. Rubin attorneys' fee of $500,000, in the aggregate, which amount was paid by our insurance carrier.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock is listed on the Nasdaq Global Market under the symbol "MSON".

As of June 30, 2019, we had 9,646,728 shares of common stock outstanding and 587 shareholders of record. This amount does not take into account shareholders whose shares are held in "street name" by brokerage houses or other intermediaries.

We have not paid any cash dividends since our inception. We do not intend to pay any cash dividends in the foreseeable future, but intend to retain all earnings, if any, for use in our business operations.

Item 6. Selected Financial Data

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

We design, manufacture and market minimally invasive therapeutic ultrasonic medical devices. These products are used for precise bone sculpting, removal of soft and hard tumors, and tissue debridement, primarily in the areas of neurosurgery, orthopedic surgery, plastic surgery, wound care and maxillo-facial surgery. In the United States, we sell our products through our direct sales force, in addition to a network of commissioned agents assisted by our personnel. Outside of the United States, we generally sell to distributors who then resell the products to hospitals. We operate as one business segment.

In the United States, we are taking a more aggressive approach to taking market share, expanding the market and increasing its share of recurring disposable revenue by using a consignment model, whereby we will consign the equipment (which is defined as a generator, hand units and accessories), or Equipment, and sell to customers the higher margin disposable, single use items, or Consumables, on a recurring basis. Title remains with the Company with respect to consigned Equipment, which is depreciated and charged to selling expenses over a five-year period. Our overall goal is to increase the utilization rate of Equipment which will increase the total number of procedures and maximize the sale of Consumables to our customers, with the goal of becoming the standard of care in the medical procedures on which we focus.

Pending Acquisition of Solsys Medical, LLC

On May 2, 2019, we announced that we had entered into a merger agreement to acquire Solsys Medical, LLC, a privately held regenerative medical company, to acquire Solsys in an all-stock transaction valued at approximately $97 million. The planned acquisition of Solsys is expected to substantially broaden our addressable market through wound care solutions that are complementary to its existing products. Under the terms of the merger agreement, a new holding company will issue approximately 5.7 million new shares of common stock to Solsys unitholders and current Misonix shareholders will have their shares of our common stock converted into shares of the holding company's common stock on a one-for-one basis. After the completion of the transaction, it is expected that Misonix shareholders immediately prior to the closing will own approximately 64% of the holding company, and Solsys unitholders will own approximately 36%. Misonix will also assume Solsys' outstanding secured debt, with an expected balance of approximately $20 million, upon closing. In addition, the holding company's Board of Directors will consist of five members: Thomas Patton, Stavros Vizirgianakis, and Gwen Watanabe, who are currently serving as directors of Misonix, and Mr. Michael Koby and Mr. Paul LaViolette who are currently serving as directors of Solsys.

The transaction has been approved by both the Misonix board of directors and the Solsys board of managers. The completion of the acquisition and the issuance of the holding company's shares in connection with the proposed transaction is subject to the approval by Misonix shareholders and the completion of the transaction is subject to approval by 55% of Solsys' Series E unitholders and a majority of its common unitholders, Series A unitholders, Series B unitholders, Series C unitholders and Series D unitholders, voting as a single class, as well as the satisfaction of certain customary closing conditions. We have scheduled a special shareholder meeting on September 26, 2019 for Misonix shareholders to vote on the transaction and other related matters. A copy of the proxy statement for such meeting can be found at our website www.misonix.com. We anticipate that the transaction will close in the third quarter of calendar 2019.

Results of Operations

The following discussion and analysis provides information which our management believes is relevant to an assessment and understanding of our results of operations and financial condition. This discussion should be read in conjunction with the consolidated financial statements and notes thereto appearing elsewhere herein. Unless otherwise specified, this discussion relates solely to our continuing operations.

Fiscal years ended June 30, 2019 and 2018

Our revenues by category for the two years ended June 30, 2019 are as follows:

	For the year ended June 30		Net Change % Year Ended June 30,	
	2019	2018	2019	2018
Total				
Consumables	$ 28,371,517	$ 23,596,476	20.2%	16.1%
Equipment	10,476,974	9,073,350	15.5%	30.7%
Total Product	38,848,491	32,669,826	18.9%	19.8%
License Fee	-	4,010,000	-100.0%	0.0%
Total	$ 38,848,491	$ 36,679,826	5.9%	34.5%
Domestic:				
Consumables	$ 20,561,273	$ 17,735,749	15.9%	19.3%
Equipment	2,414,435	2,308,614	4.6%	44.8%
Total	$ 22,975,708	$ 20,044,363	14.6%	21.8%
International:				
Consumables	$ 7,810,244	$ 5,860,727	33.3%	7.3%
Equipment	8,062,539	6,764,736	19.2%	26.5%
Total	$ 15,872,783	$ 12,625,463	25.7%	16.8%

Fiscal years ended June 30, 2019 and 2018

Net revenue

Revenues increased 5.9% or $2.2 million to $38.8 million in fiscal 2019 from $36.7 million in fiscal 2018 principally due to strong demand for our products domestically and internationally. Fiscal 2018's revenue included $4.0 million of license revenue relating to the licensing of one of our products in China, with no corresponding revenue in fiscal 2019.

Product revenue increased 18.9% or $6.2 million to $38.8 million in fiscal 2019, from $32.7 million in fiscal 2018. Domestic product revenue grew 14.6% and international product revenue grew 25.7% for fiscal 2019. Domestic consumables revenue increased 15.9%, or $2.8 million for the current year, principally due to the strength in the our BoneScalpel product line. International consumables revenue grew 33.3% for the current year, resulting from strength from the Chinese market.

Gross profit

The gross profit percentage on product sales was 70.2% in fiscal 2019, compared with 70.0% in fiscal 2018. Including the impact of license revenue in fiscal 2018, which has a 100% gross profit margin, the total gross profit margin for the year was 73.3%.

Selling expenses

Selling expenses increased by $2.0 million, or 12.1% to $18.3 million in fiscal 2019 from $16.4 million in fiscal 2018. The expense increase is related to increased compensation and related costs for the Company's expanded direct sales force of $2.5 million, increased freight cost of $0.3 million and higher Group Purchasing Organization fees of $0.5 million, offset by a reduction of $1.7 million in distributor commission costs, as we are converting from distributors to a direct sales force.

General and administrative expenses

General and administrative expenses increased $2.8 million to $11.9 million in fiscal 2019 from $9.1 million in fiscal 2018. The increase principally related to an increase of $1.2 million of professional fees for the Solsys acquisition, increased compensation and benefits of $1.2 million, and increased professional fees of $0.4 million.

Research and development expenses

Research and development expenses increased by $0.1 million, or 1.7% to $4.5 million in fiscal 2019 from $4.4 million in the prior year period. During fiscal 2018 and 2019, we invested in the design and development of our next generation product, Nexus, which we launched in June 2019. For fiscal 2019, approximately $1.9 million has been charged to research and development expenses related to Nexus, compared with $2.8 million in fiscal 2018. We completed that project and received FDA 510(k) clearance in June 2019. The decrease in research and development expenses related to Nexus product development from 2018 to 2019 was offset by a $0.7 million increase in other research and development costs of $0.7 million.

Other income

Other income decreased $0.5 million to $0.1 million in fiscal 2019 from $0.6 million in fiscal 2018. The decrease is related to lower royalty income from MMIT. This royalty agreement expired in August 2017.

Income taxes

Income tax expense for the year ended June 30, 2019 includes an additional $1.3 million valuation allowance against our deferred tax assets. In accordance with the guidance of ASC Topic 740, management concluded that in its judgment, the Company's deferred tax assets at June 30, 2019 and 2018 are not more likely-than-not realizable. The components of the tax provision are as follows:

	Year ended June 30,	
	2019	2018
Tax at federal statutory rates	$ (1,541,883)	$ (483,207)
State income taxes, net of federal benefit	22,552	(102,812)
Research credit	(186,761)	(216,099)
Stock-based compensation	35,923	306,678
Valuation allowance	1,194,917	4,096,353
Reduction of deferred tax asset related to Tax Legislation	-	1,755,823
Meals	25,116	12,458
Transaction Costs	293,256	-
Long-term Contracts	201,600	-
Other	(16,173)	47,452
	$ 28,547	$ 5,416,646

The income tax expense for the year ended June 30, 2018 included a one-time charge of $1.8 million to revalue the Company's deferred tax asset as of December 31, 2017 to give effect to the reduction in federal corporate tax rate to 21% effective January 1, 2018, as a result of the new tax legislation, enacted on December 22, 2017. Income tax expense also includes a $4.1 million charge to record a full valuation allowance against the remaining deferred tax assets. In accordance with the guidance of ASC Topic 740, management concluded that in its judgment, our deferred tax assets at June 30, 2018 are not more likely-than-not realizable. The components of the tax provision for the years ended June 30, 2019 and 2018 are as follows:

	For the years ended June 30,	
	2019	2018
Income tax benefit	$ (1,250,272)	$ (443,746)
Provisional reduction of deferred tax asset relating to Tax Legislation	-	1,764,039
Change in valuation allowance on deferred tax asset	1,278,819	4,096,353
Net income tax expense	$ 28,547	$ 5,416,646

Liquidity and Capital Resources

Working capital at June 30, 2019 was $13.5 million. For fiscal 2019, cash used in operations was $3.7 million, mainly due to the Company's net loss of $7.4 million and an increase in inventory of $3.2 million, offset by an increase in accounts payable and accrued expenses of $3.1 million, and $4.0 million of non-cash expenses

Cash used in investing activities was $0.8 million, primarily consisting of the purchase of property, plant and equipment along with filing for additional patents, offset by income from discontinued operations.

Cash provided by financing activities was $1.4 million for fiscal 2019, resulting from the exercise of stock options.

As of June 30, 2019, the Company had a cash balance of approximately $7.8 million and believes it has sufficient cash to finance operations for at least the next 12 months following the issuance date of the financial statements included herein.

Commitments

The Company has commitments under operating leases that will be funded from operating sources. At June 30, 2019, the Company's contractual cash obligations and commitments relating to operating leases and other purchase commitments are as follows:

Commitment	Less than 1 year	1-3 years	4-5 years	After 5 years	Total
Operating leases	$ 365,942	$ 96,517	$ -	$ -	$ 462,459
Purchase commitments	5,518,842	-	-	-	5,518,842
	$ 5,884,784	$ 96,517	$ -	$ -	$ 5,981,301

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to the Company.

Other

In the opinion of management, inflation has not had a material effect on the operations of the Company.

Critical Accounting Policies and Use of Estimates

Our discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities, and the reported amounts of revenues and expenses. Significant estimates affecting amounts reported or disclosed in the consolidated financial statements include net realizable value of inventories, valuation of intangible assets including amortization periods for acquired intangible assets, estimates of projected cash flows and discount rates used to value intangible assets and test goodwill and intangible assets for impairment, computation of valuation allowances recorded against deferred tax assets, and valuation of stock-based compensation. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the current circumstances. Actual results could differ from these estimates.

We believe that the following accounting policies, which form the basis for developing these estimates, are those that are most critical to the presentation of our consolidated financial statements and require the more difficult subjective and complex judgments.

Revenue Recognition

We satisfy performance obligations either over time, or at a point in time, upon which control transfers to the customer.

Revenue derived from the shipping and billing of product is recorded upon shipment, when transfer of control occurs for products shipped freight on board, or F.O.B., shipping point. Products shipped F.O.B. destination point are recorded as revenue when received at the point of destination when the transfer of control is completed. Shipments under agreements with distributors are not subject to return, and distributor payments to us are not contingent on sales of our products by the distributor. Accordingly, we recognize revenue on shipments to distributors in the same manner as with other customers under the ship and bill process.

Revenue derived from the rental of equipment is recorded on a monthly basis over the term of the lease. Shipments of consumable products to these rental customers is recorded as orders are received and shipments are made F.O.B. destination or F.O.B. shipping point.

Revenue derived from consignment agreements is earned as consumables product orders are fulfilled using the right to invoice practical expedient. Therefore, revenue is recognized as control passes to the customer, which is typically when shipments are made F.O.B shipping point or F.O.B destination.

Revenue derived from service and maintenance contracts is recognized evenly over the life of the service agreement as the services are performed.

Inventories

Inventories, consisting of purchased materials, direct labor and manufacturing overhead, are stated at the lower of cost (determined by the first-in, first-out method) or net realizable value. At each balance sheet date, we evaluate ending inventories for excess quantities and obsolescence. Our evaluation includes an analysis of historical sales levels by product, projections of future demand by product, the risk of technological or competitive obsolescence for our products, general market conditions, and the feasibility of reworking or using excess or obsolete products or components in the production or assembly of other products that are not obsolete or for which we do not have excess quantities in inventory. To the extent that we determine there are excess or obsolete quantities or quantities on hand, we adjust their carrying value to estimated net realizable value. If future demand or market conditions are lower than our projections, or if we are unable to rework excess or obsolete quantities into other products, we may record further adjustments to the carrying value of inventory through a charge to cost of product revenues in the period the revision is made.

Goodwill

The excess of the cost over the fair value of net assets of acquired businesses is recorded as goodwill. Goodwill is not subject to amortization, but is reviewed for impairment at the reporting unit level annually, or more frequently if impairment indicators arise. Our assessment of the recoverability of goodwill is based upon a comparison of the carrying value of goodwill with its estimated fair value and the value of the Company at the measurement date.

Application of these impairment tests requires significant judgments, including estimation of cash flows, which is dependent on internal forecasts, estimation of the long term rate of growth for our business, the useful lives over which cash flows will occur and determination of our weighted average cost of capital. Our market capitalization exceeds the value of the goodwill. Accordingly, we concluded that there was no impairment to goodwill at June 30, 2019 and June 30, 2018.

Income Taxes

We assess whether a valuation allowance should be established against our deferred tax assets based on consideration of all available evidence, both positive and negative, using a more likely than not standard. This assessment considers, among other matters, the nature, frequency and severity of recent losses; a forecast of future profitability; the duration of statutory carryback and carryforward periods; our experience with tax attributes expiring unused; and tax planning alternatives. The likelihood that the deferred tax asset balance will be recovered from future taxable income is assessed at least quarterly, and the valuation allowance, if any, is adjusted accordingly.

Loss Contingencies

We are subject to claims and lawsuits in the ordinary course of our business, including claims by employees or former employees, with respect to our products and involving commercial disputes, or shareholder actions. We accrue for loss contingencies when it is deemed probable that a loss has been incurred and that loss is estimable. The amounts accrued are based on the full amount of the estimated loss before considering insurance proceeds, if applicable, and do not include an estimate for legal fees expected to be incurred in connection with the loss contingency. Our financial statements do not reflect any material amounts related to possible unfavorable outcomes of claims and lawsuits to which we are currently a party because we currently believe that such claims and lawsuits are not expected, individually or in the aggregate, to result in a material adverse effect on our financial condition. However, it is possible that these contingencies could materially affect our results of operations, financial position and cash flows in a particular period if we change our assessment of the likely outcome of these matters.

Stock-Based Compensation

We recognize compensation expense associated with the issuance of equity instruments to employees for their services. Based on the type of equity instrument, the fair value is estimated on the date of grant using the Black-Scholes option valuation model, and is being expensed in the financial statements over the service period and is recorded in general and administrative expenses. The input assumptions used in determining fair value are the expected life, expected volatility, risk-free rate and expected dividend yield.

On December 15, 2016, we issued 400,000 shares of restricted stock to our Chief Executive Officer. These awards vest over a period of up to five years, subject to meeting certain service, performance and market conditions. We valued these awards using a Monte Carlo valuation model, which required the use of various estimates in arriving at the valuation of the awards. The valuation included the estimate of the probability of achieving the performance criteria, which included minimum levels of Company stock price and revenue. If the stock price and performance conditions are not met, some or all of these awards will not vest and compensation cost recorded, if any, could be reversed.

Recently Issued and Adopted Accounting Standards

In May 2014, the Financial Accounting Standards Board, or the FASB, issued ASC Update No. 2014-09, Revenue from Contracts with Customers (Topic 606), which was subsequently updated ("ASU 2014-09"). The purpose of the updated standard is to provide enhancements to the quality and consistency of revenue recognition between companies using U.S. GAAP and International Financial Reporting Standards. The new five-step recognition model introduces the core principle of recognizing revenue in an amount that reflects the consideration to which the entity expects to be entitled in exchange for the promised goods or services, which includes additional footnote disclosures to describe the nature, amount, timing and uncertainty of revenue, certain costs and cash flow arising from customers.

As amended, ASU 2014-09 requires us to use either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each prior reporting period with the option to elect certain practical expedients; or (ii) a modified retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption. This standard became effective for us on July 1, 2018 and we adopted the new pronouncement using the modified retrospective method.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), and has since issued amendments thereto, related to the accounting for leases (collectively referred to as "ASC 842"). ASC 842 establishes a right-of-use, or ROU, model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. We will adopt ASC 842 on July 1, 2019. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. Entities have the option to continue to apply historical accounting under Topic 840, including its disclosure requirements, in comparative periods presented in the year of adoption. An entity that elects this option will recognize a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption instead of the earliest period presented. We expect to elect to apply the optional ASC 842 transition provisions beginning on July 1, 2019. Accordingly, we will continue to apply Topic 840 prior to July 1, 2019, including Topic 840 disclosure requirements, in the comparative periods presented. We expect to elect the package of practical expedients for all leases that commenced before July 1, 2019. We have evaluated our real estate lease, our copier leases and our generator rental agreements. We expect that the adoption of ASC 842 will materially impact our balance sheet and have an immaterial impact on our results of operations. Based on our current agreements, the Company expects that upon the adoption of ASC 842 on July 1, 2019, we will record an operating lease liability of approximately $400,000 and corresponding ROU assets based on the present value of the remaining minimum rental payments associated with our leases. As our leases do not provide an implicit rate, nor is one readily available, we will use our incremental borrowing rate based on information available at July 1, 2019 to determine the present value of our future minimum rental payments.

In March 2016, the FASB issued Accounting Standards Update No. 2016-09 "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" intended to simplify several aspects of accounting for share-based payment transactions. The Company adopted these amendments beginning in the first quarter of fiscal 2018. The guidance requires that all excess tax benefits and tax deficiencies previously recorded as additional paid-in capital be prospectively recorded in income tax expense. The guidance allows for an increase in the threshold for net share settlement up to the maximum statutory rate in employees' applicable jurisdictions without triggering liability classification. The adoption of this guidance had an immaterial impact on income taxes on the Company's Consolidated Statement of Operations for the year ended June 30, 2018. The Company elected to apply the presentation requirement for cash flows related to excess tax benefits prospectively, which had an immaterial impact on both net cash from operating activities and net cash used in financing activities for the year ended June 30, 2018. The presentation requirements for cash flows related to employee taxes paid for withheld shares had no impact on any of the periods presented on the Company's Consolidated Statements of Cash Flows since such cash flows have historically been presented as a financing activity. Finally, the Company has elected to account for forfeitures as they occur, rather than estimate expected forfeitures. As a result, the Company recorded the cumulative impact of $908,875 as an increase to Deferred Income Taxes with a corresponding decrease to Accumulated Deficit.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instrument. ASU 2016-13 replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for SEC filers for interim and annual periods beginning after December 15, 2019. Management is currently assessing the impact ASU 2016-13 will have on the Company, but it is not expected to have a material impact on the Company's financial statements.

In August 2016, the FASB issued guidance on the Statement of Cash Flows Classification of certain cash receipts and cash payments (a consensus of the Emerging Issues Task Force) ASU 2016-15, Statement of Cash Flows (Topic 230) or ASU 2016-150. This guidance addresses the following eight specific cash flow issues: Debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); distributions received from equity method investees; beneficial interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. This guidance became effective for the Company beginning in fiscal 2019. As this guidance only affects the classification within the statement of cash flows, ASU 2016-15 did not have a material impact on our consolidated financial statements.

In January 2018, the FASB issued ASU No. 2018-01, *Business Combinations: Clarifying the Definition of a Business,* or ASU 2018-01. ASU 2018-01 clarifies the definition of a business for determining whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. ASU 2018-01 is effective for annual periods and interim periods within those annual periods beginning after December 15, 2018, and early adoption is permitted. Our adoption of ASU 2018-01 did not have a material effect on our consolidated financial statements.

There are no other recently issued accounting pronouncements that are expected to have a material effect on the Company's financial position, results of operations or cash flows.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Market Risk:

The principal market risks (i.e., the risk of loss arising from adverse changes in market rates and prices) to which the Company is exposed are interest rates on cash and certain items in inventory.

Interest Rate Risk:

The Company earns interest on cash balances. In light of the Company's existing cash, results of operations and projected borrowing requirements, the Company does not believe that a 10% change in interest rates would have a significant impact on its consolidated financial position.

Item 8. Financial Statements and Supplemental Data.

Our reports from our independent registered public accounting firms and consolidated financial statements listed in the accompanying index are filed as part of this Annual Report. See "Index to Consolidated Financial Statements" on page F-1 below.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not applicable.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) that are designed to provide reasonable assurance that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

All internal control systems, no matter how well designed and tested, have inherent limitations, including, among other things, the possibility of human error, circumvention or disregard. Therefore, even those systems of internal control that have been determined to be effective can provide only reasonable assurance that the objectives of the control system are met and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

We carried out an evaluation, under the supervision and with the participation of management, of the effectiveness of the design and operation of our disclosure controls and procedures as of June 30, 2019. Due to the material weakness in internal control over financial reporting as described below in "Management's Report on Internal Control over Financial Reporting", our CEO and CFO have concluded that our disclosure controls and procedures were not effective, and were not operating at a reasonable assurance level, as of June 30, 2019.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness (as defined in Rule 12b-2 under the Exchange Act) is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis. Management conducted an evaluation of the effectiveness of our internal control over financial reporting as of June 30, 2019, based on the criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon this evaluation, management has identified a deficiency related to the design of a process level control to address the completeness and accuracy of unrecorded liabilities at June 30, 2019, as described below. In light of such material weakness, management has concluded that our internal control over financial reporting was ineffective as of June 30, 2019

The Company identified one invoice related to legal fees which was properly approved and submitted to the accounts payable department for posting, however such invoice was erroneously posted into the month of July 2019 instead of June 2019 as the result of a keypunch error. The Company's finance personnel failed to promptly identify this error. To remediate this weakness, the Company has implemented controls to review and verify that open accounts payable invoices in addition to invoices paid after period end are entered into the correct accounting period. This error was corrected and impacted the balance sheet only, and did not impact the statement of operations.

The identified control deficiency did not result in any material misstatements in our financial statements. However, this control deficiency created a reasonable possibility that a material misstatement to the consolidated financial statements would not be prevented or detected on a timely basis. Accordingly, we concluded that the control deficiency represented a material weakness in our internal control over financial reporting and our internal control over financial reporting was not effective as of June 30, 2019.

The independent registered public accounting firm, BDO USA, LLP, has expressed an adverse report on the operating effectiveness of our internal control over financial reporting as of June 30, 2019. BDO USA, LLP's report appears in Item 8 of this 10-K.

Remediation of Previous Material Weaknesses in Internal Control Over Financial Reporting

Our annual report on Form 10-K for the fiscal year ended June 30, 2018 and subsequent quarterly reports on Form 10-Q for the fiscal quarters ended September 30, 2018 and December 31, 2018 disclosed and described in detail material weaknesses in internal control with respect to the approval of journal entries. A material weakness (as defined in Rule 12b-2 under the Exchange Act) is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis.

As a result, these foregoing prior reports contained conclusions by our CEO and CFO that our disclosure controls and procedures and internal control over financial reporting were not effective, as of the respective dates of such prior reports. As further described in the prior reports, we have implemented a series of remedial actions to address these control deficiencies. We have since successfully completed the testing of these remediated controls and our conclusions with respect to disclosure controls and procedures and internal control at June 30, 2019 are provided above.

Changes in Internal Control over Financial Reporting

Other than the remediation of the material weakness in internal control described above, there were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fourth fiscal quarter ended June 30, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The Company currently has five Directors (the "Board"). Their term expires at the next Annual Meeting of Shareholders. The following table contains information regarding all Directors and executive officers of the Company as of August 20, 2019:

Name	Age	Principal Occupation	Director Since
Patrick A. McBrayer	67	Director	2014
Dr. Charles Miner III	67	Director	2005
Thomas M. Patton	55	Director	2015
Stavros G. Vizirgianakis	48	President, Chief Executive Officer and Director	2013
Gwendolyn A. Watanabe	48	Director	2018
Joseph P. Dwyer	63	Chief Financial Officer	-
Sharon W. Klugewicz	51	Chief Operating Officer	
Robert S. Ludecker	51	Senior Vice President, Global Sales and Marketing	-

Principal Occupations and Business Experience of Directors and Executive Officers

The following is a brief account of the business experience of the Company's Directors and executive officers:

Directors

Patrick A. McBrayer has served since January 2016 as President and Chief Executive Officer of ACell Corporation, a surgery and wound care company. Mr. McBrayer previously served as President and Chief Executive Officer and as a director of privately-held AxioMed Spine Corporation from February 2006 to January 2015. AxioMed is a medical device company focused on restoring the natural function of the spine. Prior to joining AxioMed, he held positions with Xylos Corporation (medical biomaterials); Exogen, Inc. (treatment of musculoskeletal injury and disease); Osteotech, Inc. (tissue technology); and Johnson and Johnson Products, Inc. (healthcare products). Mr. McBrayer holds a B.S. in General Engineering from the United States Military Academy. The Board believes Mr. McBrayer's industry knowledge and experience as a CEO qualifies him to serve as a Director.

Dr. Charles Miner III currently practices internal medicine in Darien, Connecticut. Dr. Miner is on staff at Stamford and Norwalk Hospitals and since 1982 has held a teaching position at Columbia Presbyterian Hospital. Dr. Miner received his M.D. from the University of Cincinnati College of Medicine in 1979 and received a Bachelor of Science from Lehigh University in 1974. Dr. Miner is an experienced physician and teacher in the medical field. He formerly served on the board of The Stamford Hospital Foundation Board. The Board believes his experience as a medical doctor and his corporate experience qualifies him to serve as a Director.

Thomas M. Patton most recently served as President and Chief Executive Officer of CAS Medical Systems, Inc. (CASMED) and as a member of its Board of Directors from 2010 until its sale to Edwards Life Sciences in April 2019. He previously served as the CEO of Wright Medical Group, an orthopedic device company, located in Memphis, Tennessee, and as President of Novametrix Medical Systems, a patient-monitoring company, located in Wallingford, Connecticut. From 2003 to 2010, Mr. Patton acted as an advisor to the healthcare-focused private equity group of Ferrer Freeman & Company and, in that capacity, served as the interim CEO of Informed Medical Communications on a part-time basis in 2006 and 2007. Mr. Patton was co-founder and CEO of QDx, Inc., a start-up company that developed a platform for hematology diagnostics from 2003 until its sale to Abbott Laboratories in 2008. Mr. Patton attended The College of the Holy Cross, where he majored in Economics and Accounting. After graduating magna cum laude from Georgetown University Law Center, Mr. Patton worked at the law firm of Williams & Connolly in Washington, D.C. Thereafter, he joined Wright Medical Group as its General Counsel where he served in various executive roles until being appointed CEO. In addition to CASMED and the Company, Mr. Patton has served on the Board of Directors of nine other businesses both public and private. The Board believes Mr. Patton's industry knowledge and experience qualify him to serve as a director.

Stavros G. Vizirgianakis became our Interim Chief Executive Officer in September 2016 and its full-time President and Chief Executive Officer in December 2016. Mr. Vizirgianakis has a distinguished career in the medical devices field having worked for United States Surgical Corporation as director of sales for sub-Saharan Africa and later Tyco Healthcare in the capacity of General Manager South Africa. In 2006, Mr. Vizirgianakis co-founded Surgical Innovations, which has become one of the largest privately owned medical device distributors in the African region, and now part of the Johannesburg Stock Exchange listed entity Ascendis Health. In that capacity, Mr. Vizirgianakis acted as a distributor of the Company's products. Mr. Vizirgianakis was Managing Director of Ascendis Medical from January 2014 through July 2016. Mr. Vizirgianakis also served on the board of Tenaxis Medical and is a strategic investor and advisor to numerous medical device startups and established companies in this field. Mr. Vizirgianakis has a degree in commerce from the University of South Africa. The Board believes Mr. Vizirgianakis' industry knowledge and his vast international business relationships qualify him to serve as a Director.

Gwendolyn A. Watanabe, has over 25 years of financial and executive management experience in the medical device industry. Ms. Watanabe presently serves as the Vice President, Global Corporate Development and Strategy for Teleflex Incorporated, a publicly traded global provider of medical technology products, reporting to Teleflex's Chief Executive Officer. She has led the Teleflex Global Corporate Development & Strategy team since 2013, specifically on strategic mergers & acquisitions. She also leads global strategic relationships for Teleflex. From July 2012 to July 2013, Ms. Watanabe served as Vice President of the Hotspur line of business for Teleflex's Cardiac Care Division.

Ms. Watanabe joined Teleflex in July 2012 as a result of Teleflex's acquisition of Hotspur Technologies, Inc. She served as President and Chief Executive Officer of Hotspur since 2009. Prior to this, she also served as a founding team member at Nellix Endovascular, Bacchus Vascular and AneuRx, all three of which were medical device start-up companies that were acquired. In addition, Gwen has been general partner of three venture funds and other private equity entities. Ms. Watanabe formerly served on the Board of Directors of Hotspur Technologies (acquired by Teleflex), NovaSom (still privately held) and Practice Fusion (acquired by Allscripts). She holds an M.S. in Mechanical Engineering from Stanford University in the Design Division with an emphasis on Biomechanical Design, as well as an MBA from Harvard Business School with a focus on Finance and Marketing. She also holds a B.S. in Mechanical Engineering from Massachusetts Institute of Technology where she simultaneously completed her pre-med requirements. The Board believes Ms. Watanabe's executive experience, industry knowledge and technical background qualifies her to serve as a director.

Executive Officers who are not Directors

Joseph P. Dwyer has served as our Chief Financial Officer since August 2017 and as our Treasurer and Secretary since September 2017, and previously served as Interim Chief Financial Officer from September 2016 to August 2017. From June 2015 to August 2017, Mr. Dwyer has provided financial consulting and advisory services to various companies, through the firms Dwyer Holdings and TechCXO. Prior thereto, from November 2012 until June 2015, he was Chief Financial Officer of Virtual Piggy, Inc., a publicly-traded technology company. Prior to joining Virtual Piggy, Mr. Dwyer served as chief financial officer of OpenLink Financial, Inc., a privately held company, which provides software solutions for trading and risk management in the energy, commodity, and capital markets. During 2011 and 2012, Mr. Dwyer was a member of the board of directors and chairman of the audit committee and served as interim chief administrative officer of Energy Solutions International, Inc., a privately-held company providing pipeline management software to energy companies and pipeline operators. From 2010 through 2011, Mr. Dwyer served as chief administrative officer of Capstone Advisory Group, LLC, a privately-held financial advisory firm providing corporate restructuring, litigation support, forensic accounting, expert testimony and valuation services. Mr. Dwyer served as a consultant to Verint Systems, Inc., a software company listed on the NASDAQ Global Market, from 2009 through 2010, assisting with SEC reporting and compliance. From 2005 through 2009, Mr. Dwyer served as chief financial officer and executive vice president of AXS-One Inc., a publicly traded software company. During 2004, Mr. Dwyer served as chief financial officer of Synergen, Inc., a privately held software company providing energy technology to utilities. Prior to 2004, Mr. Dwyer also served as chief financial officer and executive vice president of Caminus Corporation, an enterprise application software company that was formerly listed on the NASDAQ National Market, chief financial officer of ACTV, Inc., a digital media company that was formerly listed on the NASDAQ National Market, and chief financial officer of Winstar Global Products, Inc., a manufacturer and distributor of hair care, bath and beauty products until its acquisition by Winstar Communications, Inc. in 1995 when Mr. Dwyer went on to serve as senior vice president, finance of Winstar Communications. Mr. Dwyer received his BBA in Accounting from the University of Notre Dame in 1978 and is licensed as a Certified Public Accountant in the State of New York.

Sharon W. Klugewicz became Chief Operating Officer in March 2019. Prior to joining the Company, Ms. Klugewicz served from July 2018 to February 2019 as Chief Quality & Regulatory Affairs Officer for Chembio Diagnostic Systems, Inc. ("Chembio"), a manufacturer of diagnostic tests for infectious diseases. Prior to her role as Chief Quality & Regulatory Affairs Officer, Ms. Klugewicz served in various roles for Chembio, including President, Americas Region from September 2016 to June 2018, acting CEO from May 2017 to October 2017, Chief Operating Officer from May 2013 to August 2016 and Vice President, QA/QC/Technical Operations until April 2013. Prior to joining Chembio in September 2012, Ms. Klugewicz, held a number of executive positions at Pall Corporation, a world leader in filtration, separation and purification technologies, over her 21-year tenure there, including Sr. VP, Scientific & Laboratory Services, Sr. VP, Global Quality Operations in the Pall Life Sciences Division, as well as in Marketing Product Management, and Field Technical Services. Ms. Klugewicz holds an M.S. in Biochemistry from Adelphi University and a B.S. in Neurobiology from Stony Brook University.

Robert S. Ludecker became Senior Vice President of Global Sales and Marketing in May 2015. Prior to joining the Company as Global Vice President of Sales and Marketing in May 2013, Mr. Ludecker served from February 2011 to May 2013 as Vice President of Global Sales and Marketing for BioMimetic Therapeutics, a NASDAQ-listed biotechnology company, specializing in the development and commercialization of products which promote the healing of musculoskeletal injury and diseases, including orthopedic, spine, and sports medicine applications. Prior to BioMimetic, Mr. Ludecker served from February 2008 to February 2011 in a variety of senior sales and marketing leadership positions with Small Bone Innovations, a private New York City-based orthopedic company specializing in small bones, and Smith and Nephew, a leading U.K.-based global provider of orthopedic reconstruction implants and a broad portfolio of medical instruments and supplies. Mr. Ludecker holds a B.A. degree from Kenyon College.

Executive officers are elected annually by, and serve at the discretion of, the Board.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires the Company's executive officers, directors and persons who own more than 10% of a registered class of the Company's equity securities ("Reporting Persons") to file reports of ownership and changes in ownership on Forms 3, 4, and 5 with the SEC. These Reporting Persons are required by SEC regulation to furnish the Company with copies of all Forms 3, 4 and 5 they file with the SEC. Based solely on the Company's review of the copies of the forms it has received, the Company believes that all Reporting Persons, complied on a timely basis with all filing requirements applicable to them with respect to transactions during fiscal year 2019.

Code of Ethics

The Company has adopted a code of ethics that applies to all of its directors, officers (including its Chief Executive Officer, Chief Financial Officer, Controller and any person performing similar functions) and employees. The Company has made the Code of Ethics available on its website at www.MISONIX.com.

Nomination of Directors

The process followed by the Nominating and Governance Committee to identify and evaluate director candidates includes requests to the members of our Board and others for recommendations, meetings to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the Nominating and Governance Committee and our Board.

In recommending candidates to the Board for nomination as directors, the Nominating and Governance Committee strives to identify individuals who bring a unique perspective to the Company's leadership and contribute to the overall diversity of our Board. Although the Nominating and Governance Committee has not adopted a specific written diversity policy for nominations, we believe that a diversity of experience, gender, race, ethnicity and age contributes to effective governance for the benefit of our shareholders. In practice, the Nominating and Governance Committee considers such characteristics together with the other qualities considered necessary by the Nominating and Governance Committee, such as requisite judgment, skill, integrity and experience, including experience in industries beyond healthcare. The Nominating and Governance Committee does not assign a particular weight to these individual factors. Rather, the Nominating and Governance Committee looks for a mix of factors that, when considered along with the experience and credentials of the other candidates and existing directors, will provide shareholders with a diverse and experienced Board.

Our Board does not currently prescribe any minimum qualifications for director candidates; however, the Nominating and Governance Committee will take into account a potential candidate's experience, areas of expertise and other factors relevant to the overall composition of our board of directors.

Shareholders may recommend individuals to the Nominating and Governance Committee for consideration as potential director nominees by submitting the names of the candidate(s), together with appropriate biographical information and background materials and a statement as to whether the shareholder or group of shareholders making the recommendation has beneficially owned more than 5% of our Common Stock for at least a year as of the date such recommendation is made, to the Nominating and Governance Committee, Attn: Corporate Secretary, Misonix, Inc., 1938 New Highway, Farmingdale, New York 11735. Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating and Governance Committee will evaluate shareholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Audit Committee

The Company has a separately designated standing Audit Committee. The members of the committee are Messrs. Patton, McBrayer and Ms. Watanabe. Mr. Patton chairs the committee. Each current member of the committee, and each member who served during the 2019 fiscal year, is independent as defined in Rule 10A-3 of the Securities and Exchange Commission and the listing standards of Nasdaq. The Board of Directors has determined that Messrs. Patton and McBrayer each qualifies as an "audit committee financial expert," as that term is defined in Regulation S-K of the Securities and Exchange Commission.

Item 11. Executive Compensation.

Compensation Discussion and Analysis

Named Executive Officers

The following discussion is focused primarily on the Company's compensation philosophy, policies and programs as they relate to, and amounts paid or payable to, our executive officers for their services during 2019. Those executive officers consist of the following individuals, who are referred to as our "named executive officers" or the "NEOs":

Name	Age	Position(s)
Stavros G. Vizirgianakis	48	President, Chief Executive Officer and Director
Joseph P. Dwyer	63	Chief Financial Officer
Robert S. Ludecker	51	Senior Vice President, Global Sales and Marketing
Sharon Klugewicz	51	Chief Operating Officer

Overview of Compensation Program and Philosophy

Our compensation program is intended to:

- Attract, motivate, retain and reward employees of outstanding ability;
- Link changes in employee compensation to individual and corporate performance;
- Align employees' interests with those of the Company's shareholders.

The ultimate objective of our compensation program is to increase shareholder value. We seek to achieve these objectives with a total compensation approach which takes into account a competitive base salary, bonus pay based on the annual performance of the Company and individual goals and stock option and restricted stock awards.

The Board's Compensation Committee, which is comprised solely of independent directors and is responsible for making decisions regarding the amount and form of compensation paid to our executive officers, has carefully considered the results of prior say-on-pay shareholder votes. Based upon the vote results at the most recent annual shareholders meeting, shareholders appear to be supportive of the Compensation Committee's approach to the executive compensation program.

Base Salaries

Base salaries paid to executives are intended to attract and retain highly talented individuals. In setting base salaries, individual experience, individual performance, the Company's performance and job responsibilities during the year are considered. Executive salaries are evaluated against local companies of similar size and nature. During the fiscal year ended June 30, 2019, Messrs. Vizirgianakis, Dwyer and Ludecker each received base salary increases of 3.0% based on performance.

Annual Bonus Plan Compensation

The Compensation Committee of the Board approves annual performance-based compensation. The purpose of the annual bonus compensation is to motivate executive officers and key employees. Target bonuses, based upon recommendations from the Chief Executive Officer, are evaluated and approved by the Compensation Committee for all management employees other than the Chief Executive Officer. The bonus recommendations are derived from individual and Company performance but not based on a specific formula and are discretionary. The Chief Executive Officer's bonus compensation is derived from the recommendation of the Compensation Committee based upon the Chief Executive Officer's performance and Company performance but is not based on a specific formula and is discretionary. Bonuses earned in fiscal 2019 based on performance were as follows: $163,305 to Mr. Vizirgianakis, $83,220 to Mr. Dwyer and $79,100 to Mr. Ludecker.

Equity Incentive Awards

Company executives are eligible to receive restricted stock and stock options (which gives them the right to purchase shares of common stock at a specified price in the future). These grants will vest based upon the passage of time, the achievement of performance metrics, or both. We believe that the use of restricted stock and stock options as the basis for long-term incentive compensation meets our defined compensation strategy and business needs by achieving increased value for shareholders and retaining key employees.

Stock option awards are intended to attract and retain highly talented executives, to provide an opportunity for significant compensation when overall Company performance is reflected in the stock price and to help align executives' and shareholders' interests. Stock options are typically granted at the time of hire to key new employees and annually to a broad group of existing key employees, including executive officers. We have adopted a number of equity compensation plans governing the grant of such stock options. All of our equity compensation plans have been approved by our shareholders.

Annual option grants to executive officers are made at the discretion of the Board or the Compensation Committee and may be in the form of incentive stock options ("ISOs") up to the fullest extent permitted under tax laws, with the balance granted in the form of nonqualified stock options. The option grants are subject to the terms of the relevant plan. ISOs have potential income tax advantage for executives if the executive disposes of the acquired shares after satisfying certain holding periods. Tax laws provide that at the date of grant, the aggregate fair market value of ISOs that become exercisable for any employee in any year may not exceed $100,000.

Our current standard option vesting schedule for all employees is 25% on the first anniversary of the date of grant, 25% on the second anniversary of the date of grant, 25% on the third anniversary of the date of grant and 25% on the fourth anniversary of the date of grant.

The number of stock options granted in fiscal 2019 to the named executive officers, and their estimated fair value, were as follows

Named Executive Officer	Grant Date	Number of Options Granted	Estimated Fair Value of Awards at Grant Date
Joseph P. Dwyer	7/24/2018	25,000	$ 218,924
Sharon Klugewicz	3/1/2019	25,000	$ 276,170
Robert S. Ludecker	7/24/2018	18,000	$ 157,625

The stock options awarded on July 24, 2018 had an exercise price of $15.90 (which was equal to the closing market price per share of our stock on the date of grant). The stock options awarded on March 1, 2019 had an exercise price of $19.84 (which was equal to the closing market price per share of our stock on the date of grant). All stock options in the above table provide for vesting at 25% per year on the first four-year anniversary dates of the grant date, with a stated expiration date of ten years after grant.

Other Annual Compensation and Benefits

Although direct compensation, in the form of salary, non-equity incentive awards and long-term equity incentive awards provide most of the compensation to each Executive Officer, we also provide for the following items of additional compensation

- Retirement savings are provided by a 401(k) plan, in the same manner to all U.S. employees. This plan includes an employer matching contribution of 10% which is intended to encourage employees (including the chief executive officer) to save for retirement.

- Health, life and disability benefits are offered to our executive officers in the same manner to all of our U.S. employees. We provided additional life insurance, long term care policies and certain transportation expenses for our chief executive officer and each of our executive officers.

Transportation expenses are provided to executive officers, primarily in the form of an automobile allowance.

Compensation Committee Report

Our Compensation Committee has furnished the following report. The information contained in the "*Compensation Committee Report"* is not deemed to be "soliciting material" or to be "filed" with the SEC, nor is such information to be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Securities Act, or the Exchange Act, as amended, except to the extent that we specifically incorporate it by reference in to such filings.

Our Compensation Committee has reviewed and discussed the "Compensation Discussion and Analysis" required by Item 402(b) of Regulation S-K of the Securities Act with management. Based on such review and discussion, our Compensation Committee recommended to our Board of Directors that the *"Compensation Discussion and Analysis"* be included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2018 for filing with the SEC.

Compensation Committee

Patrick A. McBrayer
Dr. Charles Miner III
Thomas M. Patton

Compensation Committee Interlocks and Insider Participation

During fiscal 2019, Messrs. McBrayer, Miner and Patton served as members of our Compensation Committee. No Member of our Compensation Committee is or was during fiscal year 2019 an employee or an officer of Misonix or its subsidiaries.

Summary of Compensation

The table and footnotes below describe the total compensation for fiscal years ended June 30, 2019, June 30, 2018, and June 30, 2017 earned by the named executive officers.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Fiscal year Ended June 30,	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)	All Other Compen-sation ($)	Total ($)
Stavros Vizirgianakis	2019	$ 382,000	$ 163,305	$ -	$ -	$ 8,848(1)	$ 554,153
President and Chief Executive	2018	$ 365,400	$ 167,000	$ -	$ -	$ 8,907	$ 541,307
Officer	2017	$ 180,000	$ 103,125	$ 3,637,388	$ -	$ 124,020	$ 4,044,533
Joseph P. Dwyer	2019	$ 292,000	$ 83,220	$ 218,924	$ 218,924	$ 8,799(1)	$ 821,867
Chief Financial Officer	2018	$ 309,385	$ 85,000	$ 649,008	$ 649,008	$ 7,327	$ 1,050,720
	2017	$ 285,000	$ -	$ -	$ -	$ -	$ 285,000
Robert S. Ludecker	2019	$ 293,000	$ 79,100	$ 157,625	$ 157,625	$ 8,466(1)	$ 695,816
Senior Vice President-Medical	2018	$ 279,972	$ 170,500	$ 132,476	$ 132,476	$ 9,409	$ 592,356
Global Sales and Marketing	2017	$ 271,817	$ 82,500	$ 264,250	$ 264,250	$ 31,300	$ 649,867
Sharon Klugewicz (2)	2019	$ 83,333	$ 10,000	$ 276,170	$ 276,170	$ 2,538(1)	$ 648,211
Chief Operating Officer	2018	$ -	$ -	$ -	$ -	$ -	$ -
	2017	$ -	$ -	$ -	$ -	$ -	$ -

(1) Consists of a car allowance, life and long term care insurance coverage.
(2) Ms. Klugewicz joined Misonix in March 2019. Her salary and bonus represent four months of fiscal 2019. Also reflects her initial option grant.

Grants of Plan Based Awards

The following table presents non-equity and equity awards granted to the named executive officers in fiscal year 2019.

GRANTS OF PLAN BASED AWARDS IN FISCAL 2019

Name	Grant Date	All Other Stock Awards: Number of Shares of Stock	All Other Option Awards: Number of Securities Underlying Options	(1) Exercise or Base price of Option Awards ($/Share)	(2) Grant Date Fair Value of Stock and Option Awards ($)
Joseph P. Dwyer	7/24/2018	-	25,000	$ 15.90	$ 218,924
Sharon Klugewicz	3/1/2019	-	25,000	$ 19.84	$ 276,170
Robert S. Ludecker	7/24/2018	-	18,000	$ 15.90	$ 157,625

(1) All stock options in the above table provide for vesting at 25% per year on the first four-year anniversary dates of the grant date, with a stated expiration date of ten years after grant
(2) This amount represents the Black-Scholes computation as of that date of award.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held as of June 30, 2019 by our named executive officers.

OUTSTANDING EQUITY AWARDS AT 2018 FISCAL YEAR END

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares of Stock That Have Not Not Vested	Market Value of Shares of Stock That Have Not Vested
Stavros G. Vizirgianakis	53,600	(1)	$ -		80,400	$ 2,043,768
	133,000	(1)			-	$ -
		(1)			133,000	$ 3,380,860
Joseph P. Dwyer						
	25,000	75,000(2)	10.20	8/21/2027		
	3,000	9,000(3)	10.25	11/2/2027		
		25,000(9)	15.90	7/24/2028		
Robert S. Ludecker						
	3,443	-(3)	4.68	9/10/2023		
	35,000	-(4)	7.67	9/9/2024		
	80,000	-(5)	12.77	5/14/2025		
	22,500	7,500(6)	9.38	8/18/2025		
	15,550	15,450(7)	6.76	11/3/2026		
	15,000	15,000(8)	9.53	12/6/2026		
	6,000	18,000(2)	10.25	11/2/2027		
	-	18,000(9)	15.90	7/24/2028		
Sharon Klugewicz						
		25,000(10)	19.84	3/1/2029		

(1) 134,000 shares vesting in five equal installments on September 1, 2017, 2018, 2019, 2020 and 2021; 133,000 shares vest if both of the following conditions are satisfied simultaneously: (A) at any time prior to the third anniversary of the grant date, the most recent publicly reported trailing four (4) fiscal quarter revenue of the Company (exclusive of the impact of any acquisitions after the grant date) is at least $35,000,000 and (B) the closing price of the Company's Common Stock is at least $10.50 per share (subject to adjustment for stock splits, stock dividends and the like) for ten (10) consecutive trading days; and 133,000 shares vest if both of the following conditions are satisfied simultaneously: (A) at any time prior to the fifth anniversary of the grant date, the most recent publicly reported trailing four (4) fiscal quarter revenue of the Company (exclusive of the impact of any acquisitions after the grant date) is at least $48,000,000 and (B) the closing price of the Company's Common Stock is at least $13.00 per share (subject to adjustment for stock splits, stock dividends and the like) for ten (10) consecutive trading days.
(2) Options issued 8/21/17 and vest equally over 4 years.
(3) Options issued 11/2/17 and vest equally over 4 years.
(4) Options issued 9/09/14 and vest equally over 4 years.
(5) Options issued 5/14/2015 and vest equally on 11/14/2016, 5/14/2017, 5/14/2018 and 5/14/2019.
(6) Options issued 8/18/2015 and vest equally over 4 years.
(7) Options issued on 11/3/16 and vested equally over 4 years.
(8) Options issued on 12/6/16 and vested equally over 4 years.
(9) Options issued on 7/24/18 and vested over 4 years.
(10) Options issued on 3/1/19 and vested over 4 years.

Stock Option Exercises

There were no stock option exercises during fiscal 2019 by the named executive officers.

Employment and Severance Agreements

Vizirgianakis Employment Agreement

On December 15, 2016, the Company entered into an Employment Agreement (the "Vizirgianakis Agreement") with Stavros G. Vizirgianakis pursuant to which Mr. Vizirgianakis serves as the Company's full time President and Chief Executive Officer. Mr. Vizirgianakis had been serving on an unpaid basis as interim Chief Executive Officer of the Company since September 2, 2016. Mr. Vizirgianakis continues to serve as a member of the Company's Board of Directors.

Pursuant to the Vizirgianakis Agreement, Mr. Vizirgianakis' initial term of employment runs through September 13, 2019, provided that the term shall be automatically renewed and extended for consecutive one (1) year renewal terms, unless either party sends to the other party a notice of non-renewal at least ninety (90) days prior to the expiration of the initial term or any then-current renewal term. Mr. Vizirgianakis will receive an annual base salary of not less than three hundred sixty thousand dollars ($360,000) per annum, subject to review by the Board at least annually for increase but not for decrease. Mr. Vizirgianakis is also eligible to receive annual bonuses in the discretion of the Board. The Vizirgianakis Agreement also provides for a one-time $10,000 moving allowance and reimbursement of counsel fees relating to visa matters and the negotiation of the Vizirgianakis Agreement. If the Company terminates Mr. Vizirgianakis' employment without cause (as defined in the Vizirgianakis Agreement), the Company provides a notice of non-renewal, or Mr. Vizirgianakis terminates his employment for good reason (as defined in the Vizirgianakis Agreement), Mr. Vizirgianakis shall be entitled to receive (i) a lump-sum cash payment from the Company in an amount equal to one and one-half (1.5) times the annual base salary as is in effect immediately prior to the date of such termination, and (ii) continuation of all employee benefits and fringe benefits to which he was entitled under the Vizirgianakis Agreement immediately prior to such termination of employment for a period of eighteen (18) months following the termination of employment. The Vizirgianakis Agreement also contains non-competition and non-solicitation covenants from Mr. Vizirgianakis during the term of employment and for a period of 18 months thereafter.

In conjunction with the execution of the Vizirgianakis Agreement, Mr. Vizirgianakis received grants of an aggregate of 400,000 shares of restricted stock pursuant to the Company's 2014 Employee Equity Incentive Plan (the "Plan") as follows: (i) a grant of 134,000 shares vesting in five equal installments on September 1, 2017, 2018, 2019, 2020 and 2021; (ii) a performance grant of 133,000 shares which vests if both of the following conditions are satisfied simultaneously: (A) at any time prior to the third anniversary of the grant date, the most recent publicly reported trailing four (4) fiscal quarter revenue of the Company (exclusive of the impact of any acquisitions after the grant date) is at least $35,000,000 and (B) the closing price of the Company's Common Stock is at least $10.50 per share (subject to adjustment for stock splits, stock dividends and the like) for ten (10) consecutive trading days; and (iii) a performance grant of 133,000 shares which vests if both of the following conditions are satisfied simultaneously: (A) at any time prior to the fifth anniversary of the grant date, the most recent publicly reported trailing four (4) fiscal quarter revenue of the Company (exclusive of the impact of any acquisitions after the grant date) is at least $48,000,000 and (B) the closing price of the Company's Common Stock is at least $13.00 per share (subject to adjustment for stock splits, stock dividends and the like) for ten (10) consecutive trading days. The aforementioned performance grants will vest on a change of control in accordance with the Plan only if the applicable share price threshold is met in such transaction.

Dwyer Employment Agreement

On August 21, 2017, the Company entered into an Employment Agreement (the "Dwyer Agreement") with Joseph P. Dwyer pursuant to which Mr. Dwyer serves as the Company's full time Chief Financial Officer. Mr. Dwyer had been serving as Interim Chief Financial Officer of the Company since September 13, 2016.

Pursuant to the Dwyer Agreement, Mr. Dwyer's initial term of employment runs through August 21, 2019, provided that the term shall be automatically renewed and extended for consecutive one (1) year renewal terms, unless either party sends to the other party a notice of non-renewal at least ninety (90) days prior to the expiration of the initial term or any then-current renewal term. Mr. Dwyer will receive an annual base salary of not less than two hundred seventy-five thousand dollars ($275,000) per annum, subject to review by the Board at least annually for increase but not for decrease. Mr. Dwyer is also eligible to receive annual bonuses in the discretion of the Board. If the Company terminates Mr. Dwyer's employment without cause (as defined in the Dwyer Agreement), the Company provides a notice of non-renewal, or Mr. Dwyer terminates his employment for good reason (as defined in the Dwyer Agreement), Mr. Dwyer shall be entitled to receive (i) a lump-sum cash payment from the Company in an amount equal to fifty percent of the annual base salary if the applicable termination of employment takes place prior to the first anniversary of the effective date of the Dwyer Agreement or one hundred percent of the annual base salary if the applicable termination of employment takes place on or at any time after the first anniversary of the effective date of the Dwyer Agreement and (ii) continuation of all employee benefits and fringe benefits to which he was entitled under the Dwyer Agreement immediately prior to such termination of employment for a period of six or twelve months (as the case may be based upon the same time criteria as the cash severance) following the termination of employment. The Dwyer Agreement also contains non-competition and non-solicitation covenants from Mr. Dwyer during the term of employment and for a period of 12 months thereafter.

In conjunction with the execution of the Dwyer Agreement, Mr. Dwyer received a grant of a ten-year stock option to purchase one hundred thousand (100,000) shares (the "Dwyer Stock Option Award") of Company common stock, under the Misonix, Inc. 2017 Equity Incentive Plan or another equity plan adopted by the Board and approved by the Company's shareholders. The Dwyer Stock Option Award has an exercise price of $10.20 per share, which equals the fair market value as defined in the plan and vests and becomes exercisable in four equal annual installments from the date of grant.

Executive Severance Agreements

On September 15, 2016, the Company and Robert S. Ludecker entered into a letter agreement (the "Ludecker Agreement") which provides that in the event (i) Mr. Ludecker's employment with the Company is terminated by the Company on or before September 15, 2018 for any reason other than for Cause (as defined in the Ludecker Agreement), the Company will pay him a one-time additional compensation equal to twelve (12) months annual base salary and (ii) of a Change in Control of Misonix (as defined in the Ludecker Agreement) and his employment by the Company or the acquiring company ceases (x) involuntarily or (y) voluntarily in accordance with the terms of the Ludecker Agreement, Mr. Ludecker will be entitled to a one-time additional compensation equal to twelve (12) months annual base salary. The Ludecker Agreement contains standard provisions regarding (i) execution of a release and covenant not to sue; (ii) cooperation; (iii) confidentiality; (iv) non-competition; (v) non-solicitation; and (vi) non-disparagement.

Summary of Potential Payments Upon Termination or Following a Change-In-Control

Severance Agreement and Severance Payments

Except as described above, we did not have severance agreements with any of our Executive Officers during fiscal 2019.

Change-in-Control and Change-in-Control Payments

In the event of a change-in-control, we are required to make certain change-in-control payments to Mr. Ludecker under the terms of the change-in-control agreements. The agreements provide for twelve (12) months base salary upon change in control of the Company.

The following table shows the benefits which would be received by each of our named executive officers for severance and change-in-control events (data with respect to equity awards assumes at change of control at June 30, 2019):

	Severance Payments			Change-in-Control Payments			
	Salary	Employee Benefits	Total	Salary	Employee Benefits	Equity Awards	Total
Stavros G. Vizirgianakis	$ 573,000	$ 32,040	$ 605,040	$ -	$ -	$ 5,424,628	$ 5,424,628
Joseph P. Dwyer	$ 292,000	$ 21,360	$ 313,360	$ -	$ -	$ 1,516,030	$ 1,516,030
Robert S. Ludecker	$ 293,000	$ -	$ 293,000	$ 293,000	$ -	$ 171,360	$ 464,360

Equity Plans

As of June 30, 2019, the Company had the following stock plans with options or other grants outstanding or available for issuance:

Plan	Initial Shares	Granted	Exercised	Expired / Forfeited	Outstanding	Available For Issuance
2001 Employee Stock Option Plan	1,000,000	1,251,261	376,368	869,455	5,438	-
2005 Employee Equity Incentive Plan	500,000	547,125	494,200	48,925	4,000	-
2005 Non Employee Director Stock Option Plan	500,000	195,000	127,500	52,500	15,000	-
2009 Employee Equity Incentive Plan	500,000	624,925	399,407	129,350	96,168	-
2009 Non Employee Director Stock Option Plan	200,000	230,000	60,000	56,250	113,750	4,425
2012 Employee Equity Incentive Plan	500,000	732,000	190,999	242,501	298,500	10,501
2012 Non Employee Director Stock Option Plan	200,000	237,500	37,500	56,250	143,750	18,750
2014 Employee Equity Incentive Plan	750,000	945,000	81,874	223,876	639,250	28,876
2017 Equity Incentive Plan	750,000	285,000	-	37,000	248,000	499,000
Total					1,563,856	561,552

Director Compensation for Fiscal 2019

Directors are compensated through payment of a cash fee and annual stock option grants. Commencing on January 1, 2017 and effective on May 9, 2017, each non-employee director received an annual fee of $35,000 and the Chairman of the Audit Committee received $45,000. Each non-employee director was also reimbursed for reasonable expenses incurred while traveling to attend a meeting of the Board of Directors or while traveling in furtherance of the business of the Company.

The following table sets forth information for the fiscal year ended June 30, 2019 with respect to the compensation of our directors.

	DIRECTOR COMPENSATION FOR THE 2019 FISCAL YEAR		
Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	Total ($)
Gwendolyn Ann Watanabe	$ 35,000	156,010	$ 191,010
Dr. Charles Miner III	$ 35,000	122,719	$ 157,719
Thomas M. Patton	$ 45,000	122,719	$ 167,719
Patrick A. McBrayer	$ 35,000	122,719	$ 157,719

Outstanding options at June 30, 2019 were as follows: Ms. Watanabe – 20,000, Dr. Miner - 90,000 shares, Mr. McBrayer - 65,000 shares, and Mr. Patton – 52,500 shares.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth as of August 8, 2019 certain information with regard to the ownership of the Company's Common Stock by (i) each beneficial owner of 5% or more of the Company's Common Stock; (ii) each director; (iii) each executive officer named in the "Summary Compensation Table" above; and (iv) all executive officers and directors of the Company as a group. Unless otherwise stated, the persons named in the table have sole voting and investment power with respect to all Common Stock shown as beneficially owned by them.

Name and Address (1)	Common Stock Beneficially Owned	Percent Of Class
Stavros G. Vizirgianakis	1,667,328(2)	16.5%
Patrick A. McBrayer	47,350(3)	0.5%
Charles Miner	115,632(4)	1.1%
Thomas M. Patton	38,750(5)	0.4%
Gwendolyn A. Watanabe	5,000(6)	*
Joseph P. Dwyer	61,400(7)	0.6%
Robert S. Ludecker	200,943(8)	2.0%
Sharon Klugewicz	90	*
All executive officers and Directors as a group (Eight people)		
	2,136,493(9)	21.1%

* Less than 1%

(1) Except as otherwise noted, the business address of each of the named individuals in this table is c/o MISONIX, INC., 1938 New Highway, Farmingdale, New York 11735.

(2) Includes 26,250 shares which Mr. Vizirgianakis has the right to acquire upon exercise of stock options which are exercisable within 60 days.

(3) Includes 46,250 shares which Mr. McBrayer has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(4) Includes 86,250 shares which Dr. Miner has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(5) Includes 33,750 shares which Mr. Patton has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(6) Includes 5,000 shares which Ms. Watanabe has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(7) Includes 59,250 shares which Mr. Dwyer has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(8) Includes 189,943 shares which Mr. Ludecker has the right to acquire upon exercise of stock options which are exercisable within 60 days.
(9) Includes 446,193 shares which such persons have the right to acquire upon exercise of stock options which are exercisable within 60 days.

Equity Compensation Plan Information:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders			
2001 Employee Stock Option Plan	5,438	$ 1.82	-
2005 Employee Equity Incentive Plan	4,000	$ 3.00	-
2005 Non Employee Director Stock Option Plan	15,000	$ 2.41	-
2009 Employee Equity Incentive Plan	96,168	$ 4.81	-
2009 Non Employee Director Stock Option Plan	113,750	$ 10.65	4,425
2012 Employee Equity Incentive Plan	298,500	$ 9.28	10,501
2012 Non Employee Director Stock Option Plan	143,750	$ 10.36	18,750
2014 Employee Equity Incentive Plan	639,250	$ 10.29	28,876
2017 Equity Incentive Plan	248,000	$ 6.79	499,000
Equity compensation plans not approved by security holders	-	-	-
Total	1,563,856	$ 9.98	561,552

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Director Compensation

Please see Item 11 - “Executive Compensation - Director Compensation” for a discussion of options granted and other compensation to our non-employee directors.

Executive Compensation

Please see Item 11 - "Executive Compensation" for additional information on compensation of our named executive officers.

Director Independence

The Company is required to have a Board of Directors a majority of whom are "independent" as defined by the Nasdaq listing standards and to disclose those Directors that the Board of Directors has determined to be independent. Based on such definition, the Board of Directors has determined that all Directors other than Stavros G. Vizirgianakis, who is an officer of the Company, are independent. See "Item 10. Directors, Executive Officers of the Registrant and Corporate Governance".

Item 14. Principal Accountant Fees and Services.

Audit Fees

BDO USA, LLP ("BDO") billed the Company $300,000 and $375,184 in the aggregate for services rendered for the audit of the Company's 2019 and 2018 fiscal years, respectively, and the review of the Company's interim financial statements included in the Company's Quarterly Reports on Form 10-Q for the Company's 2019 and 2018 fiscal years, respectively. Fees for fiscal 2018 have been revised to update amounts to reflect the resolution of fiscal fees, which occurred subsequent to the filing of the Form 10-K.

Audit-Related Fees

BDO billed the Company $97,227 in connection with review of the Company's Form S-4 and due diligence related to the proposed acquisition of Solsys.

Tax Fees and All Other Fees

BDO did not provide any tax services or other services to the Company during the fiscal years ended June 30, 2019 and 2018, respectively.

Policy on Pre-approval of Independent Registered Public Accounting Firm Services

The charter of the Audit Committee provides for the pre-approval of all audit services and all permitted non-audit services to be performed for Misonix by the independent registered public accounting firm, subject to the requirements of applicable law. The procedures for pre-approving all audit and non-audit services provided by the independent registered public accounting firm include the Audit Committee reviewing audit-related services, tax services and other services. The Audit Committee periodically monitors the services rendered by and actual fees paid to the independent registered public accounting firm to ensure that such services are within the parameters approved by the Audit Committee.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a)	1.	The response to this portion of Item 15 is submitted as a separate section of this Report.
	2.	Financial Statement Schedules
		Schedule II - Valuation and Qualifying Accounts.
	3.	Exhibits
	2	Agreement and Plan of Merger, dated May 2, 2019, by and among Misonix, New Misonix, Inc., Reincorp. Merger Sub One, Inc., Surge Sub Two, LLC, Solsys and, solely in its capacity as the representative for the Solsys equityholders, Greg Madden (1)
	3 (a)	Restated Certificate of Incorporation of the Company. (2)
	3 (b)	By-laws of the Company. (3)
	10.1	Form of Indemnification Agreement. (4)
*	10.7	2001 Employee Stock Option Plan. (5)
*	10.8	2005 Employee Equity Incentive Plan. (6)
*	10.9	2005 Non-Employee Director Stock Option Plan. (6)
*	10.10	2009 Employee Equity Incentive Plan. (7)
*	10.11	2009 Non-Employee Director Stock Option Plan. (7)
	10.12	Asset Purchase Agreement, dated as of May 28, 2010, among MISONIX, INC., MISONIX HIFU TECHNOLOGIES LIMITED, MISONIX LIMITED and USHIFU, LLC. (8)
*	10.17	2012 Employee Equity Incentive Plan. (9)
*	10.18	2012 Non-Employee Director Stock Option Plan. (9)
*	10.19	2014 Employee Equity Incentive Plan. (10)

	10.22	Lease Modification Agreement, dated as of July 1, 2015, between Sanwood Realty and MISONIX, INC. (11)
*	10.23	Retirement Agreement and General Release, dated August 26, 2016, between Michael A. McManus, Jr. and MISONIX, INC (12)
*	10.25	Letter Agreement, dated September 15, 2016, by and between MISONIX, INC. and Richard A. Zaremba (13)
*	10.26	Letter Agreement, dated September 15, 2016, by and between MISONIX, INC. and Robert S. Ludecker (13)
	10.27	Stock Purchase Agreement dated October 25, 2016 between MISONIX, INC. and Stavros G. Vizirgianakis (14)
*	10.29	Employment Agreement dated December 15, 2016 between the Company and Stavros G. Vizirgianakis (15)
*	10.30	Restricted Stock Award Agreement dated December 15, 2016 between the Company and Stavros G. Vizirgianakis (15)
*	10.31	Restricted Stock Award Agreement dated December 15, 2016 between the Company and Stavros G. Vizirgianakis (15)
*	10.32	Restricted Stock Award Agreement dated December 15, 2016 between the Company and Stavros G. Vizirgianakis (15)
*	10.33	2017 Equity Incentive Plan (16)
*	10.34	Employment Agreement dated August 21, 2017 between the Company and Joseph P. Dwyer (17)
*	10.35	Amendment dated as of September 18, 2017 to letter agreement between the Company and Richard A. Zaremba (18)
	10.36	License and Exclusive Manufacturing Agreement between Misonix, Inc. and Hunan Xing Hang Rui Kang Bio-technologies Co. Ltd (confidential treatment has been granted for portions of this exhibit) (19)
	10.37	Amendment No. 1 to License and Exclusive Manufacturing Agreement dated February 26, 2018 between Misonix, Inc. and Hunan Xing Hang Rui Kang Bio-technologies Co. Ltd (20)
	23.1	Consent of BDO USA, LLP

31.1	Rule 13a-14(a)/15d-14(a) Certification
31.2	Rule 13a-14(a)/15d-14(a) Certification
32.1	Section 1350 Certification
32.2	Section 1350 Certification
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Scheme Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Denotes management compensation plan, agreement or arrangement.
(1) Incorporated by reference to the Company's Current Report on Form 8-K filed on May 6, 2019
(2) Incorporated by reference from the Company's Quarterly Report on Form 10-Q filed on May 8, 2019.
(3) Incorporated by reference from the Company's Current Report on Form 8-K filed on October 3, 2014.
(4) Incorporated by reference from the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2011.
(5) Incorporated by reference from the Company's Registration Statement on Form S-8 (Reg. No. 333-63166).
(6) Incorporated by reference from the Company's definitive proxy statement for the Annual Meeting of Shareholders held on December 14, 2005.
(7) Incorporated by reference from the Company's definitive proxy statement for the Annual Meeting of Shareholders held on December 8, 2009.
(8) Incorporated by reference from the Company's Current Report on Form 8-K filed on June 4, 2010.
(9) Incorporated by reference from the Company's definitive proxy statement for the Annual Meeting of Shareholders held on December 4, 2012.
(10) Incorporated by reference from the Company's definitive proxy statement for the Annual Meeting of Shareholders held on February 3, 2015.
(11) Incorporated by reference from the Company's Current Report on Form 8-K filed on July 8, 2015.
(12) Incorporated by reference from the Company's Current Report on Form 8-K filed on August 26, 2016.
(13) Incorporated by reference from the Company's Current Report on Form 8-K filed on September 16, 2016.
(14) Incorporated by reference from the Company's Current Report on Form 8-K filed on October 25, 2016.
(15) Incorporated by reference from the Company's Current Report on Form 8-K filed on December 19, 2016.
(16) Incorporated by reference from the Company's Registration Statement on Form S-8 filed on July 19, 2017.
(17) Incorporated by reference from the Company's Current Report on Form 8-K filed on August 23, 2017.
(18) Incorporated by reference from the Company's Current Report on Form 8-K filed on September 18, 2017.
(19) Incorporated by reference from the Company's Quarterly Report on Form 10-Q filed on February 6, 2018.
(20) Incorporated by reference from the Company's Quarterly Report on Form 10-Q filed on May 7, 2018.

Item 16. Form 10-K Summary.

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MISONIX, INC.

By: /s/ Stavros G. Vizirgianakis
Stavros G. Vizirgianakis
Chief Executive Officer

Date: September 5, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Stavros G. Vizirgianakis Stavros G. Vizirgianakis	Chief Executive Officer and Director (principal executive officer)	September 5, 2019
/s/ Joseph P. Dwyer Joseph P. Dwyer	Chief Financial Officer (principal financial and accounting officer)	September 5, 2019
/s/ Patrick A. McBrayer Patrick A. McBrayer	Director	September 5, 2019
/s/ Charles Miner III Charles Miner III	Director	September 5, 2019
/s/ Thomas M. Patton Thomas M. Patton	Director	September 5, 2019
/s/ Gwendolyn A. Watanabe Gwendolyn A. Watanabe	Director	September 5, 2019

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
MISONIX, INC. and Subsidiaries
For the years ended June 30, 2019 and June 30, 2018

All other schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are not applicable and therefore have been omitted.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors
Misonix, Inc.
Farmingdale, New York

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Misonix, Inc. and its Subsidiaries (the "Company") as of June 30, 2019 and 2018, the related consolidated statements of operations, shareholders' equity, and cash flows for each of the two years in the period ended June 30, 2019, and the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at June 30, 2019 and 2018, and the results of its operations and its cash flows for the two years in the period ended June 30, 2019**,** in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of June 30, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated September 5, 2019 expressed an adverse opinion thereon.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for revenue during the fiscal year ended June 30, 2019 due to the adoption of Accounting Standards Codification *606 Revenue from Contracts with Customers.*

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2017.

Melville, New York

September 5, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
Misonix, Inc.
Farmingdale, New York

Opinion on Internal Control over Financial Reporting

We have audited Misonix, Inc. and Subsidiaries (the "Company") internal control over financial reporting as of June 30, 2019, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). In our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of June 30, 2019, based on the COSO criteria.

We do not express an opinion or any other form of assurance on management's statements referring to any corrective actions taken by the Company after the date of management's assessment.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of June 30, 2019 and 2018, the related consolidated statements of operations, shareholders' equity, and cash flows for each of the two years in the period ended June 30, 2019, and the related notes and schedule and our report dated September 5, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. A material weakness regarding management's failure to design and maintain controls to address the completeness and accuracy of unrecorded liabilities has been identified and described in management's assessment. This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the June 30, 2019 financial statements, and this report does not affect our report dated September 5, 2019 on those financial statements.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

Melville, New York

September 5, 2019

MISONIX, INC. and Subsidiaries
Consolidated Balance Sheets

	June 30, 2019	June 30, 2018
Assets		
Current assets:		
Cash and cash equivalents	$ 7,842,403	$ 10,979,455
Accounts receivable, less allowance for doubtful accounts of $100,000 and $200,000, respectively	5,360,454	5,245,549
Inventories, net	7,353,562	5,019,886
Prepaid expenses and other current assets	835,044	611,647
Total current assets	21,391,463	21,856,537
Property, plant and equipment, net of accumulated amortization and depreciation of $10,545,810 and $9,023,235, respectively	4,198,721	4,188,378
Patents, net of accumulated amortization of $1,204,589 and $1,063,393, respectively	779,100	757,447
Goodwill	1,701,094	1,701,094
Contract assets	960,000	-
Intangible and other assets	920,921	517,295
Total assets	$ 29,951,299	$ 29,020,751
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	$ 5,357,736	$ 1,794,098
Accrued expenses and other current liabilities	2,488,514	2,812,172
Total current liabilities	7,846,250	4,606,270
Non current liabilities	401,000	13,303
Total liabilities	8,247,250	4,619,573
Commitments and contingencies		
Shareholders' equity:		
Common stock, $.01 par value-shares authorized 40,000,000; 9,646,728 and 9,430,466 shares issued and outstanding in each period	96,468	94,305
Additional paid-in capital	43,500,478	39,772,973
Accumulated deficit	(21,892,897)	(15,466,100)
Total shareholders' equity	21,704,049	24,401,178
Total liabilities and shareholders' equity	$ 29,951,299	$ 29,020,751

See Accompanying Notes to Consolidated Financial Statements.

MISONIX, INC. and Subsidiaries
Consolidated Statements of Operations

	For the years ended June 30,	
	2019	2018
Revenues		
Product	$ 38,848,491	$ 32,669,826
License	-	4,010,000
Total revenue	38,848,491	36,679,826
Cost of goods sold	11,568,339	9,794,898
Gross profit	27,280,152	26,884,928
Operating expenses:		
Selling expenses	18,343,837	16,368,381
General and administrative expenses	11,878,209	9,063,139
Research and development expenses	4,467,969	4,394,149
Total operating expenses	34,690,015	29,825,669
Loss from operations	(7,409,863)	(2,940,741)
Other income (expense):		
Interest income	89,856	26,123
Royalty income	-	525,438
Other	(38,243)	2,274
Total other income	51,613	553,835
Loss from continuing operations before income taxes	(7,358,250)	(2,386,906)
Income tax expense	28,547	5,416,646
Net loss from continuing operations	(7,386,797)	(7,803,552)
Discontinued operations:		
Gain from sale of discontinued operations net of tax of $0 and $58,883, respectively	-	191,117
Net income from discontinued operations	-	191,117
Net loss	$ (7,386,797)	$ (7,612,435)
Net loss per share:		
Continuing operations:		
Basic	$ (0.79)	$ (0.87)
Diluted	$ (0.79)	$ (0.87)
Discontinued operations		
Basic	$ -	$ 0.02
Diluted	$ -	$ 0.02
Combined		
Basic	$ (0.79)	$ (0.85)
Diluted	$ (0.79)	$ (0.85)
Weighted average shares - Basic	9,333,117	9,009,189
Weighted average shares - Diluted	9,333,117	9,009,189

See Accompanying Notes to Consolidated Financial Statements.

MISONIX, INC. and Subsidiaries
Consolidated Statements of Shareholders' Equity

For the Year Ended June 30, 2019	Common Stock, $.01 Par Value		Treasury Stock		Additional paid-in capital	Accumulated deficit	Total shareholders' equity
	Number of shares	Amount	Number of shares	Amount			
Balance, June 30, 2018	9,430,466	$ 94,305	-	$ -	$39,772,973	$(15,466,100)	$ 24,401,178
Cumulative effect of the adoption of ASC 606 - revenue recognition						960,000	960,000
Net loss	-	-	-	-	-	(7,386,797)	(7,386,797)
Proceeds from exercise of stock options	216,262	2,163	-	-	1,391,366	-	1,393,529
Stock-based compensation	-	-	-	-	2,336,139	-	2,336,139
Balance, June 30, 2019	9,646,728	$ 96,468	-	$ -	$43,500,478	$(21,892,897)	$ 21,704,049

For the Year Ended June 30, 2018	Common Stock, $.01 Par Value		Treasury Stock		Additional paid-in capital	Accumulated deficit	Total shareholders' equity
	Number of shares	Amount	Number of shares	Amount			
Balance, June 30, 2017	9,357,166	$ 93,572	-	$ -	$36,808,810	$ (8,762,540)	$ 28,139,842
Cumulative effect of the adoption of ASC 718 - stock compensation						908,875	908,875
Net loss	-	-	-	-	-	(7,612,435)	(7,612,435)
Proceeds from exercise of stock options	73,300	733	-	-	335,335	-	336,068
Stock-based compensation	-	-	-	-	2,628,828	-	2,628,828
Balance, June 30, 2018	9,430,466	$ 94,305	-	$ -	$39,772,973	$(15,466,100)	$ 24,401,178

See Accompanying Notes to Consolidated Financial Statements.

MISONIX, INC. and Subsidiaries
Consolidated Statements of Cash Flows

	For the years ended June 30,	
Operating activities	2019	2018
Net loss	$ (7,386,797)	$ (7,612,435)
Net income from discontinued operations	-	(191,117)
Adjustments to reconcile net loss to net cash and cash equivalents used in operating activities:		
Depreciation and amortization	1,663,771	1,427,225
Bad debt expense	61,676	55,390
Deferred income tax expense	-	5,243,422
Stock-based compensation	2,336,139	2,628,828
Deferred lease liability and income	(13,303)	(9,138)
Changes in operating assets and liabilities:		
Accounts receivable	(176,581)	(167,550)
Inventories	(3,182,768)	(1,410,356)
Prepaid expenses and other current assets	(223,397)	72,833
Other assets	135,374	-
Accounts payable, accrued expenses and other current liabilities	3,101,980	(601,096)
Net cash used in operating activities	(3,683,906)	(563,994)
Investing activities		
Acquisition of property, plant and equipment	(683,826)	(375,419)
Additional patents	(162,849)	(165,388)
Net cash used in investing continuing activities	(846,675)	(540,807)
Net cash provided by investing activities - discontinued operations	-	191,117
Net cash used in investing activities	(846,675)	(349,690)
Financing activities		
Proceeds from sale of common stock	-	-
Proceeds from exercise of stock options	1,393,529	336,068
Net cash provided by financing activities	1,393,529	336,068
Net decrease in cash and cash equivalents	(3,137,052)	(577,616)
Cash and cash equivalents at beginning of year	10,979,455	11,557,071
Cash and cash equivalents at end of year	$ 7,842,403	$ 10,979,455
Supplemental disclosure of cash flow information:		
Cash paid for:		
Interest	$ -	$ -
Income taxes	$ 77,576	$ 704
Transfer of inventory to property, plant and equipment for consignment of product	$ 849,092	$ 1,382,904
Adoption of new accounting standard on deferred taxes	$ -	$ 908,875
Accrued but unpaid costs to register equity for acquisition	$ 539,000	$ -

See Accompanying Notes to Consolidated Financial Statements.

1. Basis of Presentation, Organization and Business and Summary of Significant Accounting Policies

Basis of Presentation

These consolidated financial statements of Misonix, Inc. ("Misonix" or the "Company") include the accounts of Misonix and its 100% owned subsidiaries. All significant intercompany balances and transactions have been eliminated.

Organization and Business

Misonix designs, manufactures, develops and markets therapeutic ultrasonic devices. These products are used for precise bone sculpting, removal of soft tumors, and tissue debridement in the fields of orthopedic surgery, plastic surgery, neurosurgery, podiatry and vascular surgery. In the United States, our products are marketed primarily through a hybrid sales approach. This includes direct sales representatives, managed by regional sales managers, along with independent distributors. Outside the United States, we sell BoneScalpel and SonaStar to specialty distributors who purchase products from us to resell to their clinical customer bases. We sell to all major markets in the Americas, Europe, Middle East, Asia Pacific and Africa. The Company operates as one business segment.

Pending Merger with Solsys Medical, LLC

On May 2, 2019, the Company announced that it has entered into a definitive agreement with Solsys Medical, LLC ("Solsys"), a privately held regenerative medical company, to acquire Solsys in an all-stock transaction valued at approximately $97 million. The planned acquisition of Solsys is expected to substantially broaden Misonix's addressable market through wound care solutions that are complementary to its existing products. The transaction has been approved by both the Company's Board of Directors and the Solsys Board of Managers. After the completion of the transaction, it is expected that Misonix shareholders immediately prior to the closing will own 64% of the combined entity, and Solsys unitholders will own 36%. The completion of the acquisition and the issuance of shares in connection with the proposed transaction is subject to the approval by Misonix shareholders and the completion of the transaction is subject to approval by 55% of Solsys' Series E unitholders and a majority of its Common unitholders, Series A unitholders, Series B unitholders, Series C unitholders and Series D unitholders, voting as a single class, as well as the satisfaction of certain customary closing conditions. The Company will convene a special shareholder meeting to vote on the transaction. The Company anticipates that the transaction will close in the third quarter of calendar year 2019. Professional fees incurred during the year ended June 30, 2019 with respect to this matter were approximately $1.9 million. Approximately $539,000 of these costs relate to the registration of the common stock that will be issued to pay for the transaction. These costs are included in Intangible and other assets as of June 30, 2019 and will be applied against Additional paid-in capital upon closing of the transaction.

High Intensity Focused Ultrasound Technology

The Company sold its rights to the high intensity focused ultrasound technology to SonaCare Medical, LLC ("SonaCare") in May 2010. The Company may receive up to approximately $5.8 million in payment for the sale. SonaCare is required to pay the Company 7% of the gross revenues received from its sales of the (i) prostate product in Europe and (ii) kidney and liver products worldwide, until the Company has received payments of $3 million, and thereafter 5% of the gross revenues, up to an aggregate payment of $5.8 million, all subject to a minimum annual royalty of $250,000. Cumulative payments through June 30, 2019 were $2,542,579. SonaCare has defaulted on its royalty payment due on March 31, 2019, and the Company is in discussions with SonaCare regarding this default. Given that the payment is uncertain, the Company has not recorded any income relating to this payment.

Cash and Cash Equivalents

The Company considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. All of the Company's cash is maintained in bank accounts and accordingly it does not have cash equivalents at June 30, 2019. The Company's cash balance at June 30, 2019 was $7,842,403.

The Company maintains cash balances at various financial institutions. At June 30, 2019, these financial institutions held cash that was approximately $4,366,000 in excess of amounts insured by the Federal Deposit Insurance Corporation and other government agencies.

Major Customers and Concentration of Credit Risk

Included in sales from continuing operations are sales to the Company distributor of SonaStar in China of $151,949 and $6,969,258 for the fiscal years ended June 30, 2019 and 2018, respectively, inclusive of product licensing fees of $4,010,000. Accounts receivable from this customer were $14,850 at June 30, 2019. Also included in sales from continuing operations are sales to the Company's distributor of its BoneScalpel product in China of $4,473,534 and $0 for the fiscal years ended June 30, 2019 and 2018, respectively. Accounts receivable from this customer were $493,784 at June 30, 2019.

Total royalties from Medtronic Minimally Invasive Therapies ("MMIT") related to its sales of the Company's ultrasonic cutting and sculpting products, which use high frequency sound waves to coagulate and divide tissue for both open and laparoscopic surgery, were $0 and $525,000 for the fiscal years ended June 30, 2019 and 2018, respectively. There were no accounts receivable from MMIT royalties at June 30, 2019 and 2018, respectively. The license agreement with MMIT expired in August 2017.

At June 30, 2019 and 2018, the Company's accounts receivable with customers outside the United States were approximately $2,181,000 and $1,630,000, respectively, none of which is over 90 days.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and judgments that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates and assumptions are used for but not limited to establishing the allowance for doubtful accounts, valuation of inventory, depreciation, asset impairment evaluations and establishing deferred tax assets and related valuation allowances, and stock-based compensation. Actual results could differ from those estimates.

Accounts Receivable

Accounts receivable, principally trade, are generally due within 30 to 90 days and are stated at amounts due from customers, net of an allowance for doubtful accounts. The Company performs ongoing credit evaluations and adjusts credit limits based upon payment history and the customer's current credit worthiness, as determined by a review of their current credit information. The Company continuously monitors aging reports, collections and payments from customers and maintains a provision for estimated credit losses based upon historical experience and any specific customer collection issues that have been identified. While such credit losses have historically been within expectations and the provisions established, the Company cannot guarantee that the same credit loss rates will be experienced in the future. The Company writes off accounts receivable when they become uncollectible.

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or net realizable value and consist of raw materials, work-in process and finished goods and include purchased materials, direct labor and manufacturing overhead. Management evaluates the need to record adjustments to write down inventory to the lower of cost or net realizable value on a quarterly basis. The Company's policy is to assess the valuation of all inventories, including raw materials, work-in-process and finished goods and it writes down its inventory for estimated obsolescence based upon the age of inventory and assumptions about future demand and usage. Inventory items used for demonstration purposes, rentals or on consignment are classified as property, plant and equipment.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Minor replacements and maintenance and repair expenses are charged to expense as incurred. Depreciation of property and equipment is provided using the straight-line method over estimated useful lives ranging from 3 to 5 years. Leasehold improvements are amortized over the life of the lease or the useful life of the related asset, whichever is shorter. The Company's policy is to periodically evaluate the appropriateness of the lives assigned to property, plant and equipment and make adjustments if necessary. Depreciation of BoneScalpel and SonicOne generators which are consigned to customers are depreciated over a 5- year period, and depreciation is charged to selling expenses. See Note 4.

Revenue Recognition

On July 1, 2018 the Company adopted Accounting Standards Codification ("ASC") Topic 606 "Revenue from Contracts with Customers, as amended" ("ASC Topic 606"), using the modified retrospective method applied to those contracts which were not completed as of the adoption date. The reported results for year ended June 30, 2019 reflect the application of Topic 606 guidance while the reported results for fiscal year 2018 were prepared under the guidance of ASC Topic 605, "Revenue Recognition". The adoption of ASC Topic 606 resulted in a cumulative prior period adjustment in the amount of $960,000 related to the Company's License and Exclusive Manufacturing Agreement described below, but the remainder of the adoption did not have a material impact on the timing or amount of revenue recognized.

The impacts of adopting ASC Topic 606 on the Company's consolidated balance sheets as of July 1, 2018 were as follows:

	As Reported	ASC 606 Adjustments	As Adjusted Under ASC 606
Long-term contract assets	$ -	$ 960,000	$ 960,000
Total Shareholders' equity	$ 24,401,178	$ 960,000	$ 25,361,178

The Company has made the following accounting policy elections and elected to use certain practical expedients, as permitted by the FASB, in applying ASC Topic 606: 1) the Company accounts for amounts collected from customers for sales and other taxes net of related amounts remitted to tax authorities; 2) the Company expenses costs to obtain a contract as they are incurred if the expected period of benefit, and therefore the amortization period, is one year or less; 3) the Company accounts for shipping and handling activities that occur after control transfers to the customer as a fulfillment cost rather than an additional promised service and these fulfillment costs fall within selling, general and administrative expenses; 4) the Company does not assess whether promised goods or services are performance obligations if they are immaterial in the context of the contract with the customer; 5) the Company will utilize the right-to-invoice practical expedient with regard to the recognition of revenue upon the purchase of consumable goods in connection with a product placement/consignment arrangement.

The Company determines revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer
- Identification of the performance obligations in the contract
- Determination of the transaction price
- Allocation of the transaction price to the performance obligations in the contract
- Recognition of revenue when, or as, a performance obligation is satisfied

Contracts and Performance Obligations

The Company accounts for a contract with a customer when there is an approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of the consideration is probable. The Company's performance obligations consist mainly of transferring control of products and related services identified in the contracts, purchase orders or invoices. For each contract, the Company considers the obligation to transfer products or bundled products and services to the customer, of which each is distinct in the context of the contract, to be performance obligations. The Company historically has not made provisions for returns and allowances as they have not been material to the operations of the Company.

Transaction Price and Allocation to Performance Obligations

Transaction prices of products are typically based upon contracted rates as specified on the purchase order for the purchase of consumables. The Company's contracted rates represent the standalone selling price of a consumable which is generally determined through the sale of products and/or bundled products or services separately in similar circumstances to similar customers. The Company determines the effects of variable consideration, inclusive of any constraints, in determining the transaction price with regard to its contracts with customers.

Recognition of Revenue

The Company satisfies performance obligations either over time, or at a point in time, upon which control transfers to the customer.

Revenue derived from the shipping and billing of product is recorded upon shipment, when transfer of control occurs for products shipped freight on board ("F.O.B.") shipping point. Products shipped F.O.B. destination point are recorded as revenue when received at the point of destination when the transfer of control is completed. Shipments under agreements with distributors are not subject to return, and payment for these shipments is not contingent on sales by the distributor. Accordingly, the Company recognizes revenue on shipments to distributors in the same manner as with other customers under the ship and bill process.

Revenue derived from the rental of equipment is recorded on a monthly basis over the term of the lease. Shipments of consumable products to these rental customers is recorded as orders are received and shipments are made F.O.B. destination or F.O.B. shipping point.

Revenue derived from consignment agreements is earned as consumables product orders are fulfilled using the right to invoice practical expedient. Therefore, revenue is recognized as control passes to the customer, which is typically when shipments are made F.O B shipping point or F.O.B destination.

Revenue derived from service and maintenance contracts is recognized evenly over the life of the service agreement as the services are performed.

Contract Specific Performance Obligations and Significant Judgements

Product Placement/Consignment Agreements

The Company's product placement/consignment agreements provide for the placement of a generator at the customer's place of business and set pricing related to the purchase of consumables for use in conjunction with the generator. These agreements do not require any minimum consumable purchase quantities and do not have a stated term. The Company considers the transaction price in these arrangements to be fully constrained variable consideration because it is dependent on future sales of consumables to the customer. The Company has determined that the pattern of purchase of consumables by a customer is consistent with the benefit received by the customer for the use of the generator and therefore the Company has a right to consideration based upon the pattern of consumable purchases placed through purchase orders by the customer. The Company's invoices to these customers have short-term payment terms and are aligned with the transfer of goods and services to the customer and the Company recognizes revenue based upon its right to invoice customers.

License and Manufacturing Agreement

On October 19, 2017, the Company entered into a License and Exclusive Manufacturing Agreement (the "L&M Agreement") with Hunan Xing Hang Rui Kang Bio-technologies Co., Ltd, a Chinese corporation (the "Licensee") under which Misonix has licensed certain manufacturing and distribution rights to its SonaStar product line in China, Hong Kong and Macau. The Licensee was obligated to make an initial payment of $5,000,000 for the transfer of functional intellectual property and initial stocking orders of product. In addition, the Licensee is required to make minimum royalty payments of $2,000,000 per calendar year for three years beginning in 2019, based upon the manufacture of products by the Licensee. The Company collected $5,000,000 of initial revenue for the quarter ended March 31, 2018 under ASC 605. Upon the adoption of ASC Topic 606, the Company evaluated this contract under the provisions of the new revenue standard. The Company determined that the satisfied performance obligations and allocation of the transaction price related to the $5,000,000 received prior to adoption was consistent with the provisions of ASC Topic 606 and also recorded a transitional adjustment to accumulated deficit in the amount of $960,000 as follows:

Minimum royalty revenue provided by the contract	$ 6,000,000
Implicit price concession	(5,040,000)
Adoption adjustment to accumulated deficit under ASC 606	$ 960,000

Although the contract includes minimum royalties, the Company concluded that a significant portion of those guaranteed minimums are actually variable consideration subject to the constraint because the Company has provided an implicit price concession. Specifically, the fact that production of the product in China is not assured and the Licensee must develop a manufacturing process, coupled with the fact that new technology related to the product is expected to be available for sale domestically, may result in the Licensee not earning sufficient revenue in order to pay the minimum royalties. Therefore, the Company has determined variable consideration through utilization of the most likely method based upon forecasts and projections of shipment of products.

The Company will monitor facts and circumstances over time and adjust management's most likely estimate of variable consideration on a quarterly basis. As of June 30, 2019, the Company updated its estimate and concluded the amount is not materially different. The uncertainties that existed at inception of the contract still exist at June 30, 2019.

Disaggregation of Revenue

The Company generates revenue from the sale and leasing of medical equipment and from the sale of consumable products used with medical equipment in surgical procedures as well as through product licensing arrangements. In the United States, the Company's products are marketed primarily through a hybrid sales approach which includes direct sales representatives, managed by regional sales managers, along with independent distributors. Outside the United States, the Company sells BoneScalpel and SonaStar to specialty distributors who purchase products to resell to their clinical customer bases. The Company sells to all major markets in the Americas, Europe, Middle East, Asia Pacific, and Africa. Revenue is disaggregated from contracts between products under ship and bill arrangements and licensing agreements, and by geography, which the Company believes best depicts how the nature, amount, timing and uncertainty of revenues and cash flows are affected by economic factors. The Company also provides an immaterial amount of service revenue which is recognized over time, but not stated separately because the amounts are immaterial.

The following table disaggregates the Company's product revenue by classification and geographic location:

	For the year ended June 30	
	2019	2018
Total		
Consumables	$ 28,371,517	$ 23,596,476
Equipment	10,476,974	9,073,350
Total Product	38,848,491	32,669,826
License Fee	-	4,010,000
Total	$ 38,848,491	$ 36,679,826
Domestic:		
Consumables	$ 20,561,273	$ 17,735,749
Equipment	2,414,435	2,308,614
Total	$ 22,975,708	$ 20,044,363
International:		
Consumables	$ 7,810,244	$ 5,860,727
Equipment	8,062,539	6,764,736
Total	$ 15,872,783	$ 12,625,463

Contract Assets

The timing of revenue recognition, customer invoicing, and collections produces accounts receivable and contract assets on the Company's consolidated balance sheet. Contract liabilities are not material to the operations of the Company as of June 30, 2019. The Company invoices in accordance with contract payment terms. Invoices to customers represent an unconditional right of the Company to receive consideration. When revenue is recognized in advance of customer invoicing a contract asset is recorded. Unpaid customer invoices are reflected as accounts receivable.

The Company has established a contract asset in conjunction with the Company's L&M Agreement based upon its assessment of the most likely variable consideration to be received by the Company as a result of the royalty provisions in the contract. The asset is recorded as a long-term asset as the Company believes that payment will be made on this asset in a duration exceeding one year. Contract assets as of June 30, 2019 and June 30, 2018 were $960,000 and $0, respectively.

Selling Costs

Incremental direct costs of obtaining a sales contract primarily include sales commissions paid to sales personnel and outside sales representatives in connection with sales of products under ship and bill scenarios or through product placement scenarios. The expected period of benefit of these costs is one year or less and therefore the Company has elected the practical expedient to expense such costs in the period in which they are incurred. Typically, costs in fulfilling a contract represent shipping and handling costs and the Company accounts for these costs as fulfillment costs and they are expensed as incurred. Costs in fulfilling a contract are only capitalized as an asset if they relate directly to an existing contract or specific anticipated contract, they generate or enhance resources of the entity that will be used to satisfy performance obligations in the future, and they are expected to be recovered. The Company has not identified any such costs.

Long-Lived Assets

The carrying values of intangible and other long-lived assets, excluding goodwill, are periodically reviewed to determine if any impairment indicators are present. If it is determined that such indicators are present and the review indicates that the assets will not be fully recoverable, based on undiscounted estimated cash flows over the remaining amortization and depreciation period, their carrying values are reduced to estimated fair value. Impairment indicators include, among other conditions, cash flow deficits, historic or anticipated decline in revenue or operating profit, adverse legal or regulatory developments, accumulation of costs significantly in excess of amounts originally expected to acquire the asset and a material decrease in the fair value of some or all of the assets. Assets are grouped at the lowest levels for which there are identifiable cash flows that are largely independent of the cash flows generated by other asset groups. No such impairment was deemed to exist in fiscal 2019 and 2018.

Goodwill

Goodwill is not amortized. The Company reviews goodwill for impairment annually and whenever events or changes indicate that the carrying value of an asset may not be recoverable. These events or circumstances could include a significant change in the business climate, legal factors, operating performance indicators, competition, or sale or disposition of significant assets or products. Application of this impairment test requires significant judgments, including estimation of cash flows, which is dependent on internal forecasts, estimation of the long term rate of growth for the Company's business, the useful lives over which cash flows will occur and determination of the Company's weighted average cost of capital. The Company also compares its market capitalization to the value of its goodwill to view for evidence of impairment. The Company completed its annual goodwill impairment tests for fiscal 2019 and 2018 as of March 31 of each year. No impairment of goodwill was deemed to exist in fiscal 2019 and 2018.

Patents

The cost of acquiring or processing patents is capitalized at cost. This amount is being amortized using the straight-line method over the estimated useful lives of the underlying assets, which is approximately 17 years. Patents totaled $779,100 and $757,447 at June 30, 2019 and 2018, respectively. Amortization expense for the years ended June 30, 2019 and 2018 was approximately $141,200 and $127,000, respectively.

The following is a schedule of estimated future patent amortization expense as of June 30, 2019 during the following fiscal years:

2020	$ 120,186
2021	112,993
2022	75,332
2023	74,241
2024	66,486
Thereafter	329,862
	$ 779,100

Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income in those periods in which temporary differences become deductible. Should management determine that it is more likely than not that some portion of the deferred tax asset will not be realized, a valuation allowance against the deferred tax asset would be established in the period such determination was made.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefits recognized in the financial statements from such position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. The Company classifies income tax related interest and penalties as a component of income tax expense.

Earnings Per Share

Earnings per share ("EPS") is calculated using the two class method, which allocates earnings among common stock and participating securities to calculate EPS when an entity's capital structure includes either two or more classes of common stock or common stock and participating securities. Unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities. As such, unvested shares of restricted stock of the Company are considered participating securities. The dilutive effect of options and their equivalents (including non-vested stock issued under stock based compensation plans), is computed using the "treasury" method.

Basic income per common share is based on the weighted average number of common shares outstanding during the period. Diluted income per common share includes the dilutive effect of potential common shares outstanding. The following table sets forth the reconciliation of weighted average shares outstanding and diluted weighted average shares outstanding:

	For the years ended June 30,	
	2019	2018
Basic weighted average shares outstanding	9,333,117	9,009,189
Dilutive effect of restricted stock awards (participating securities)	-	-
Denominator for basic earnings per share	9,333,117	9,009,189
Dilutive effect of stock options	-	-
Diluted weighted average shares outstanding	9,333,117	9,009,189

Diluted EPS for the years ended June 30, 2019 and 2018 as presented is the same as basic EPS as the inclusion of the effect of common share equivalents then outstanding would be anti-dilutive. Accordingly, excluded from the calculation of diluted EPS are the dilutive effect of options to purchase 482,926 and 211,801 shares of common stock for the years ended June 30, 2019 and 2018, respectively. Also excluded from the calculation of both basic and diluted earnings per share for the years ended June 30, 2019 and 2018 are the 400,000 shares of restricted common stock which were issued in December 2016.

Research and Development

All research and development expenses are expensed as incurred and are included in operating expenses.

Advertising Expense

The cost of advertising is expensed in the period the advertising first takes place. The Company incurred approximately $47,000, and $0 in advertising costs during the fiscal years ended June 30, 2019 and 2018, respectively. Advertising costs are reported in selling expenses on the statement of operations.

Depreciation Expense for Consigned Inventory

The Company typically provides to its United States customers, on a consignment basis, the generators used to power its BoneScalpel and SonicOne products. Title to these generators remains at all times with the Company. When these generators are deployed in the field at customer locations, the Company depreciates these units over a five-year period and charges the depreciation to selling expenses. Depreciation expense relating to consigned generators and for demonstration equipment for the years ended June 30, 2019 and 2018 was $1,093,000 and $923,000, respectively.

Shipping and Handling

Shipping and handling fees for the fiscal years ended June 30, 2019 and 2018 were approximately $83,000 and $99,000, respectively, and are reported as a component of net sales. Shipping and handling costs for the fiscal years ended June 30, 2019 and 2018 were approximately $563,000 and $289,000, respectively, and are reported as a component of selling expenses.

Stock-Based Compensation

The Company measures compensation cost for all share based payments at fair value and recognizes the cost over the vesting period. The Company uses the Black-Scholes method to value awards and utilizes the straight line amortization method to recognize the expense associated with the awards with graded vesting terms.

Restricted Stock Awards

The Company measures compensation cost for all restricted stock awards at fair value and recognizes the cost over the vesting period. For awards that have market conditions, the Company uses the Monte Carlo valuation method to value awards and utilizes the straight line amortization method to recognize the expense associated with the awards with graded vesting terms. Where awards have performance conditions, the Company will determine the probability of achieving those conditions and will record compensation expense when it is probable that the conditions will be met.

Recent Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instrument. ASU 2016-13 replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for SEC filers for interim and annual periods beginning after December 15, 2019. Management is currently assessing the impact ASU 2016-13 will have on the Company, but it is not expected to have a material impact on the Company's financial statements.

There are no other recently issued accounting pronouncements that are expected to have a material effect on the Company's financial position, results of operations or cash flows.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), and has since issued amendments thereto, related to the accounting for leases (collectively referred to as "ASC 842"). ASC 842 establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The Company will adopt ASC 842 on July 1, 2019. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. Entities have the option to continue to apply historical accounting under Topic 840, including its disclosure requirements, in comparative periods presented in the year of adoption. An entity that elects this option will recognize a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption instead of the earliest period presented. The Company expects to elect to apply the optional ASC 842 transition provisions beginning on July 1, 2019. Accordingly, the Company will continue to apply Topic 840 prior to July 1, 2019, including Topic 840 disclosure requirements, in the comparative periods presented. The Company expects to elect the package of practical expedients for all its leases that commenced before July 1, 2019. The Company has evaluated its real estate lease, its copier leases and its generator rental agreements. The Company expects that the adoption of ASC 842 will materially impact its balance sheet and have an immaterial impact on its results of operations. Based on the Company's current agreements, the Company expects that upon the adoption of ASC 842 on July 1, 2019, it will record an operating lease liability of approximately $400,000 and corresponding ROU assets based on the present value of the remaining minimum rental payments associated with the Company's leases. As the Company's leases do not provide an implicit rate, nor is one readily available, the Company will use its incremental borrowing rate based on information available at July 1, 2019 to determine the present value of its future minimum rental payments.

In March 2016, the FASB issued Accounting Standards Update No. 2016-09 "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" intended to simplify several aspects of accounting for share-based payment transactions. The Company adopted these amendments beginning in the first quarter of fiscal 2018. The guidance requires that all excess tax benefits and tax deficiencies previously recorded as additional paid-in capital be prospectively recorded in income tax expense. The guidance allows for an increase in the threshold for net share settlement up to the maximum statutory rate in employees' applicable jurisdictions without triggering liability classification. The adoption of this guidance had an immaterial impact on income taxes on the Company's Consolidated Statement of Operations for the year ended June 30, 2018. The Company elected to apply the presentation requirement for cash flows related to excess tax benefits prospectively, which had an immaterial impact on both net cash from operating activities and net cash used in financing activities for the year ended June 30, 2018. The presentation requirements for cash flows related to employee taxes paid for withheld shares had no impact on any of the periods presented on the Company's Consolidated Statements of Cash Flows since such cash flows have historically been presented as a financing activity. Finally, the Company has elected to account for forfeitures as they occur, rather than estimate expected forfeitures. As a result, the Company recorded the cumulative impact of $908,875 as an increase to Deferred Income Taxes with a corresponding decrease to Accumulated Deficit.

2. Fair Value of Financial Instruments

The Company follows a three-level fair value hierarchy that prioritizes the inputs to measure fair value. This hierarchy requires entities to maximize the use of "observable inputs" and minimize the use of "unobservable inputs." The three levels of inputs used to measure fair value are as follows:

Level 1: Quoted prices (unadjusted) for identical assets or liabilities in active markets as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Significant unobservable inputs that reflect assumptions that market participants would use in pricing an asset or liability.

At June 30, 2019 and 2018, all of the Company's cash and cash equivalents, trade accounts receivable and trade accounts payable were short term in nature, and their carrying amounts approximate fair value.

3. Inventories

Inventories are summarized as follows:

	June 30, 2019	June 30, 2018
Raw material	$ 4,830,207	$ 3,540,205
Work-in-process	224,252	180,442
Finished goods	2,743,361	1,743,497
	7,797,820	5,464,144
Less valuation reserve	(444,258)	(444,258)
	$ 7,353,562	$ 5,019,886

4. Property, Plant and Equipment

Property, plant and equipment consist of the following:

	June 30, 2019	June 30, 2018
Demonstration and consignment inventory	$ 9,076,970	$ 8,227,878
Machinery and equipment	2,793,908	2,582,244
Furniture and fixtures	1,471,371	1,464,325
Leasehold improvements	691,751	691,751
Software systems	688,203	223,087
Automobiles	22,328	22,328
	14,744,531	13,211,613
Less: accumulated depreciation and amortization	(10,545,810)	(9,023,235)
	$ 4,198,721	$ 4,188,378

Depreciation and amortization of property, plant and equipment totaled approximately $1,500,000 and $1,300,000 for the fiscal years ended June 30, 2019 and 2018, respectively.

5. Accrued Expenses and Other Current Liabilities

The following summarizes accrued expenses and other current liabilities:

	June 30, 2019	June 30, 2018
Accrued payroll, payroll taxes and vacation	$ 488,339	$ 351,435
Accrued bonus	622,115	552,988
Accrued commissions	662,007	742,807
Professional fees	181,313	102,065
Deferred foreign vendor taxes (1)	-	401,000
Vendor, tax and other accruals	534,740	661,877
	$ 2,488,514	$ 2,812,172

(1) Reclassified to non-current liabilities in fiscal 2019

6. Stock-Based Compensation Plans

At June 30, 2019, the Company had outstanding equity-linked grants under nine stock-based compensation plans (the "Plans"), as follows:

Plan	Initial Shares	Granted	Exercised	Expired / Forfeited	Outstanding	Available For Issuance
2001 Employee Stock Option Plan	1,000,000	1,251,261	376,368	869,455	5,438	-
2005 Employee Equity Incentive Plan	500,000	547,125	494,200	48,925	4,000	-
2005 Non Employee Director Stock Option Plan	500,000	195,000	127,500	52,500	15,000	-
2009 Employee Equity Incentive Plan	500,000	624,925	399,407	129,350	96,168	-
2009 Non Employee Director Stock Option Plan	200,000	230,000	60,000	56,250	113,750	4,425
2012 Employee Equity Incentive Plan	500,000	732,000	190,999	242,501	298,500	10,501
2012 Non Employee Director Stock Option Plan	200,000	237,500	37,500	56,250	143,750	18,750
2014 Employee Equity Incentive Plan	750,000	945,000	81,874	223,876	639,250	28,876
2017 Equity Incentive Plan	750,000	285,000	-	37,000	248,000	499,000
Total					1,563,856	561,552

The compensation cost that has been charged against income for these plans, excluding the compensation cost for restricted stock, was $1,221,233 and $1,728,491 for the fiscal years ended June 30, 2019 and 2018, respectively, and is recorded in the department associated with the employee to which the grants are issued. The expense for fiscal 2018 included a reversal of stock compensation from prior periods due to forfeitures of unvested options of $625,202. As of June 30, 2019, there was $3,770,549 of total unrecognized compensation cost to be recognized over a weighted-average period of 2.6 years, which includes $1,133,743 of unrecognized compensation expense on restricted stock awards.

Stock options typically expire 10 years from the date of grant and vest over service periods, which typically are 4 years. All options are granted at the price of the Common Stock on the NASDAQ Stock Market on the date of grant as set forth in the Plans.

The fair value of each option award was estimated on the date of grant using the Black-Scholes option valuation model that uses the assumptions noted in the following table. The expected volatility represents the historical price changes of the Company's stock over a period equal to that of the expected term of the option. The Company uses the simplified method for determining the option term. The risk-free rate was based on the U.S. Treasury yield curve in effect at the time of grant. The expected dividend yield is based upon historical and projected dividends. The Company has historically not paid dividends, and is not expected to do so in the near term.

The weighted average fair value at date of grant for options granted during the fiscal years ended June 30, 2019 and 2018 was $16.64 and $5.50 per share, respectively. The fair value was estimated based on the weighted average assumptions of:

	For the years ended June 30,	
	2019	2018
Risk-free interest rates	2.80%	1.98%
Expected option life in years	6.25	5.95
Expected stock price volatility	56.01%	57.42%
Expected dividend yield	0%	0%

A summary of option activity under the Plans as of June 30, 2019 and 2018, and changes during the years ended on those dates is presented below:

	Options		
	Outstanding Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value
Vested and exercisable at June 30, 2017	517,361	$ 6.33	$ 1,923,794
Granted	305,500	10.10	
Exercised	(76,418)	5.47	
Forfeited	(15,125)	7.89	
Expired	(75,000)	4.87	
Outstanding as of June 30, 2018	1,330,193	$ 8.47	$ 5,369,557
Vested and exercisable at June 30, 2018	681,316	$ 7.67	$ 3,355,240
Granted	255,000	16.64	
Exercised	(245,835)	7.96	
Forfeited	(160,502)	10.15	
Expired	(15,000)	2.66	
Outstanding as of June 30, 2019	1,163,856	$ 10.28	$ 17,617,231
Vested and exercisable at June 30, 2019	656,730	$ 8.42	$ 11,162,650

The total fair value of shares vested during the year ended June 30, 2019 was $2,351,268. The number and weighted-average grant-date fair value of non-vested stock options at the beginning of fiscal 2019 was 648,877 and $5.08, respectively. The number and weighted-average grant-date fair value of stock options which vested during fiscal 2019 was 240,624 and $5.14, respectively.

The following table summarizes information about stock options outstanding and exercisable at June 30, 2019:

	Options Outstanding				Options Exercisable	
Range of Exercise Prices						
Low	High	Number	Weighted Average Contractual Life (Yrs.)	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$ 1.82 -	$ 6.98	225,106	4.6	$ 4.89	183,606	$ 4.47
$ 6.99 -	$ 9.45	237,125	5.9	$ 8.21	197,249	$ 8.14
$ 9.46 -	$ 10.23	246,125	7.9	$ 9.84	124,625	$ 9.74
$ 10.24 -	$ 13.35	223,500	6.9	$ 11.75	149,250	$ 12.49
$ 13.36 -	$ 19.84	232,000	9.3	$ 16.70	2,000	$ 13.89
		1,163,856	6.9	$ 10.28	656,730	$ 8.42

Stock options are granted with exercise prices not less than the fair market value of the Company's Common Stock, at the time of the grant, with an exercise term as determined by the Committee administering the applicable option plan (the "Committee") not to exceed 10 years. The Committee determines the vesting period for the Company's stock options. Generally, such stock options have vesting periods of immediate to four years. Certain option awards provide for accelerated vesting upon meeting specific retirement, death or disability criteria, and upon change of control. During the fiscal years ended June 30, 2019 and 2018, the Company granted options to purchase 255,000 and 305,500 shares of Common Stock, respectively.

Stock options are granted with exercise prices not less than the fair market value of the Company's Common Stock, at the time of the grant, with an exercise term as determined by the compensation committee of the Company's board of directors (the "Committee") not to exceed 10 years. The Committee determines the vesting period for the Company's stock options. Generally, such stock options have vesting periods of immediate to four years. Certain option awards provide for accelerated vesting upon meeting specific retirement, death or disability criteria, and upon change of control.

Restricted Stock Awards

On December 15, 2016, the Company issued 400,000 shares of restricted stock to its Chief Executive Officer. These awards vest over a period of up to five years, subject to meeting certain service, performance and market conditions. These awards were valued at approximately $3.6 million and compensation expense recorded for the years ended June 30, 2019 and 2018 was $1,114,906 and $900,337, respectively. At June 30, 2019, there was $1,133,743 of unrecognized compensation cost to restricted stock awards to be recognized over a weighted-average period of 2.3 years. The awards contain a combination of vesting terms which include time vesting, performance vesting relating to revenue achievement, and market vesting related to obtaining certain levels of Company stock prices. During fiscal 2019, the performance conditions of one of these restricted stock awards were met, resulting in the full amortization of this award during the period, totaling $475,286 of additional amortization during the period. The number of restricted stock awards which vested was 133,333. At June 30, 2019, the Company has estimated that it is probable that the performance conditions will be met. The awards were valued using a Monte Carlo valuation model using a stock price at the date of grant of $9.60, a term of 3 to 5 years, a risk free interest rate of 1.6% to 2.1% and a volatility factor of 66.5%.

7. Commitments and Contingencies

Leases

The Company has entered into several non-cancellable operating leases for the rental of certain manufacturing and office space, equipment and automobiles expiring in various years through 2021. The principal building lease provides for a monthly rental of approximately $29,000.

The following is a schedule of future minimum lease payments, by year and in the aggregate, under operating leases with initial or remaining terms of one year or more at June 30, 2019:

	Operating Leases
2020	$ 365,942
2021	96,517
Total mimimun lease payments	$ 462,459

Certain of the leases provide for escalation clauses, renewal options and the payment of real estate taxes and other occupancy costs. Rent expense for all operating leases was approximately $422,000 and $435,000 for the fiscal years ended June 30, 2019 and 2018, respectively.

Purchase Commitments

As of June 30, 2019 and 2018, the Company had purchase and inventory commitments totaling $5,518,842 and $3,841,641, respectively.

Class Action Securities Litigation

On September 19, 2016, Richard Scalfani, an individual shareholder of Misonix, filed a lawsuit against the Company and its former chief executive officer and chief financial officer in the U.S. District Court for the Eastern District of New York, alleging violations of the federal securities laws. The complaint alleges that the Company's stock price was artificially inflated between November 5, 2015 and September 14, 2016 as a result of alleged false and misleading statements in the Company's securities filings concerning the Company's business, operations, and prospects and the Company's internal control over financial reporting. Scalfani filed the action seeking to represent a putative class of all persons (other than defendants, officers and directors of the Company, and their affiliates) who purchased publicly traded Misonix securities between November 5, 2015 and September 14, 2016. Scalfani was seeking an unspecified amount of damages for himself and for the putative class under the federal securities laws. On March 24, 2017, the Court appointed Scalfani and another individual Misonix shareholder, Tracey Angiuoli, as lead plaintiffs for purposes of pursuing the action on behalf of the putative class. The lead plaintiffs, on behalf of the putative class, and the Company reached a settlement in principle under which the Company would pay $500,000 to resolve the matter. The district court approved the settlement and dismissed the lawsuit with prejudice in an order dated December 16, 2017. The Company has paid its $250,000, representing its insurance retention. The balance was paid by the Company's insurance carrier.

Former Chinese Distributor – FCPA

With the assistance of outside counsel, the Company conducted a voluntary investigation into the business practices of the independent Chinese entity that previously distributed the Company's products in China and the Company's knowledge of those business practices, which may have had implications under the FCPA, as well as into various internal control[s] issues identified during the investigation (the "Investigation"). The Company has not identified any information through the Investigation or otherwise that suggests that the Company's previously reported financial statements are incorrect. On September 27, 2016 and September 28, 2016, the Company voluntarily contacted the SEC and the DOJ, respectively, to advise both agencies of these potential issues. Thereafter, the Company provided documents and information to, and cooperated fully with, the SEC and the DOJ, in their investigations of these matters.

On June 18, 2019, the Division of Enforcement of the SEC advised the Company by letter that the SEC had concluded its investigation of Misonix, Inc. and that, based on the information it had as of the date of the letter, it did not intend to recommend an enforcement action by the SEC against the Company. On August 13, 2019, the Company received a declination letter from the DOJ stating that the DOJ had closed its inquiry into Misonix without any action against the Company.

The investigative costs to date, including costs of litigation relating to the Company's former Chinese distributor as described below, are approximately $3.9 million to date, of which $0.8 million, $0.5 million and $2.4 million was charged to expense during the three years ended June 30, 2019, respectively.

Former Chinese Distributor - Litigation

On March 23, 2017, the Company's former distributor in China, Cicel (Beijing) Science & Technology Co., Ltd., filed a lawsuit against the Company and certain officers and directors of the Company in the United States District Court for the Eastern District of New York, alleging that the Company improperly terminated its contract with the former distributor. The complaint sought various remedies, including compensatory and punitive damages, specific performance and preliminary and post judgment injunctive relief, and asserted various causes of action, including breach of contract, unfair competition, tortious interference with contract, fraudulent inducement, and conversion. On October 7, 2017, the court granted the Company's motion to dismiss all of the tort claims asserted against it, and also granted the individual defendants' motion to dismiss all claims asserted against them. The only claim currently remaining in the case is for breach of contract against the Company; the plaintiff has moved to amend its complaint to add tort claims, which the Company has opposed. The court has not yet ruled on the motion to amend. The Company believes it has various legal and factual defenses to the allegations in the complaint, and intends to vigorously defend the action. Fact discovery in the case is ongoing, and there is no trial date currently set.

Stockholder Derivative Litigation

On June 6, 2017, Irving Feldbaum, an individual shareholder of Misonix, filed a lawsuit in the U.S. District Court for the Eastern District of New York. The complaint alleges claims against the Company's board of directors, its former chief executive officer and chief financial officer, certain of its former directors, and the Company as a nominal defendant for alleged violations of Section 14(a) of the Securities Exchange Act of 1934 and state law claims for breach of fiduciary duty, waste of corporate assets, and unjust enrichment. The complaint alleges that the Company incurred damages as a result of alleged false and misleading statements in the Company's securities filings concerning the Company's business, operations, prospects and the Company's internal control over financial reporting. The complaint also alleges that the Company's February 4, 2016 Proxy Statement contained false and misleading statements regarding executive compensation. The complaint seeks the recovery of damages on behalf of the Company and the implementation of changes to corporate governance procedures. On June 16, 2017, Michael Rubin, another individual shareholder of Misonix, filed a case alleging similar claims in the same district court. On July 21, 2017, the district court consolidated the two actions for all purposes. On July 26, 2019, the district court approved the settlement. Under the terms of the settlement, the Company has agreed to undertake and maintain in place certain corporate governance reforms for a period of time, and to pay counsel for Mr. Feldbaum and Mr. Rubin attorneys' fee of $500,000, which has been paid by Misonix's insurance carrier.

8. Related Party Transactions

Minoan Medical (Pty) Ptd. ("Minoan") (formerly Applied BioSurgical) is an independent distributor for the Company in South Africa. The chief executive officer of Minoan is also the brother of Stavros G. Vizirgianakis, the CEO of Misonix, Inc.

Set forth below is a table showing the Company's net revenues for the years ended June 30 and accounts receivable at June 30 for the indicated time periods below with Minoan:

	For the years ended June 30:	
	2019	2018
Sales	$ 1,405,430	$ 999,719
Accounts receivable	$ 221,240	$ 239,062

9. Income Taxes

Open tax years related to federal and state income tax filings are for the years ended June 30, 2016, 2017, 2018 and 2019. The Company's net operating loss carryforwards from closed years can be adjusted by the tax authorities when they are utilized in an open year. The Company files state tax returns in California, Florida, New Jersey, New York, Pennsylvania, Texas and various other states. The Company's former foreign subsidiary, Misonix Ltd. filed tax return in the United Kingdom and it was dissolved in June 2018.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. There are no uncertain tax positions as defined by ASC 740-10.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and liabilities are presented below:

	June 30, 2019	June 30, 2018
Deferred tax assets/(liabilities)		
Bad debt reserves	$ 22,977	$ 45,817
Inventory reserves	238,430	194,363
Accruals and allowances	195,789	18,938
Net operating loss carryforwards	3,875,978	2,738,775
Tax credits	683,659	496,898
Foreign tax credits	401,000	401,000
Stock based compensation	572,378	516,733
Deferred gain - HIFU and Labcaire	92,138	91,862
Amortization	(371,940)	(378,818)
Depreciation	(124,305)	(36,088)
Long-term Contract	(220,583)	-
Other	9,651	6,873
	5,375,172	4,096,353
Valuation Allowance	(5,375,172)	(4,096,353)
Total net deferred tax assets	$ -	$ -

Tax Cuts and Jobs Act of 2017

The Tax Cuts and Jobs Act of 2017 (the "Tax Legislation"), enacted on December 22, 2017, contains significant changes to U.S. tax law, including lowering the U.S. corporate income tax rate to 21%, implementing a territorial tax system, and imposing a one-time tax on deemed repatriated earnings of foreign subsidiaries.

The Tax Legislation reduces the U.S. statutory tax rate from 35% to 21%, effective January 1, 2018. U.S. tax law requires that taxpayers with a fiscal year that begins before and ends after the effective date of a rate change calculate a blended tax rate based on the pro rata number of days in the fiscal year before and after the effective date. As a result, for the fiscal year ended June 30, 2018, the Company's U.S. statutory income tax rate was 27.55%.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118"), which provides guidance on accounting for the tax effects of the Tax Legislation. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Legislation enactment date for companies to complete the accounting under ASC 740, Income Taxes. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Legislation for which the accounting under ASC 740 is complete. The Company recorded $1,755,823 discrete tax expense representing the expense of remeasuring its U.S. deferred tax assets at the lower 21% U.S. statutory tax rate. In addition, the Company had approximately $169,000 of alternative minimum tax credit which was reclassified to other current and non-current assets.

Valuation Allowance on Deferred Tax Assets

Deferred tax assets refer to assets that are attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets in essence represent future savings of taxes that would otherwise be paid in cash. The realization of the deferred tax assets is dependent upon the generation of sufficient future taxable income, including capital gains. If it is determined that the deferred tax assets cannot be realized, a valuation allowance must be established, with a corresponding charge to net income.

In accordance with ASC Topic 740, the Company establishes valuation allowances for deferred tax assets that, in its judgment are not more likely-than-not realizable. The guidance requires entities to evaluate all available positive and negative evidence, including cumulative results in recent periods, weighted based on its objectivity, in determining whether its deferred tax assets are more likely than not realizable.

The Company regularly assesses its ability to realize its deferred tax assets. The Company is in a three-year cumulative loss position at June 30, 2019, and it expects to be in a cumulative pretax loss position as of June 30, 2020. Management evaluated available positive evidence, including the continued growth of the Company's revenues and gross profit margins, the completion of the development of its next generation Nexus product, its SonaStar technology license to its Chinese partner and the reduction in investigative and professional fees, along with available negative evidence, including the Company's continuing investment in building a direct sales force and payment of transaction fees for the Company's Solsys acquisition. After weighing both the positive and negative evidence, management concluded that the Company's deferred tax assets are not more likely-than-not realizable. Accordingly, the Company recorded an increase in the valuation allowance for the year ended June 30, 2019 of $1,278,819 against its remaining deferred tax assets at June 30, 2019. The cumulative valuation allowance at June 30, 2019 is $5,375,172. The Company will continue to assess its ability to utilize its net operating loss carryforwards, and will reverse this valuation allowance when sufficient evidence is achieved to allow the realizability of such deferred tax assets.

As of June 30, 2019, the Company had approximately $17,178,000 of U.S. federal net operating loss carryforwards of which $10,504,000 will expire in tax years between 2031 and 2037 and $6,674,000 will not expire. Included in U.S. Federal net operating loss carryforward amount are windfall tax benefits related to exercised stock options of approximately $2,491,000, the benefit of which was recorded in equity when the Company adopted ASU 2016-09 beginning in fiscal 2018. The Company has approximately $684,000 of research and development tax credit carryforwards which expire in the tax years between 2026 and 2038.

Significant components of the income tax expense (benefit) attributable to continuing operations are as follows:

	Year Ended June 30,	
Current:	2019	2018
Federal	$ -	$ -
State	28,547	-
Foreign	-	401,000
Total current	28,547	401,000
Deferred:		
Federal	-	5,116,778
State	-	(101,132)
Total deferred	-	5,015,646
	$ 28,547	$ 5,416,646

The reconciliation of income tax expense (benefit) computed at the Federal statutory tax rates to income tax expense (benefit) is as follows:

	Year ended June 30,	
	2019	2018
Tax at federal statutory rates	$ (1,541,883)	$ (483,207)
State income taxes, net of federal benefit	22,552	(102,812)
Research credit	(186,761)	(216,099)
Stock-based compensation	35,923	306,678
Valuation allowance	1,194,917	4,096,353
Reduction of deferred tax asset related to Tax Legislation	-	1,755,823
Meals	25,116	12,458
Transaction Costs	293,256	-
Long-term Contracts	201,600	-
Other	(16,173)	47,452
	$ 28,547	$ 5,416,646

10. Employee Profit Sharing Plan

The Company sponsors a retirement plan pursuant to Section 401(k) of the Internal Revenue Code of 1986, as amended (the "Code") for all full-time employees. Participants may contribute a percentage of compensation not to exceed the maximum allowed under the Code, which was $24,000 if the employee was over 50 years of age for the year ended June 30, 2019. The plan provides for a matching contribution by the Company of 10% of annual eligible compensation contributed by the participants based on years of service, which amounted to $55,297 and $58,162 for the fiscal years ended June 30, 2019 and 2018, respectively.

11. Segment Reporting

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated on a regular basis by the chief operating decision-maker ("CODM") in deciding how to allocate resources to an individual segment and in assessing performance of the segment. The Company has concluded that its Chief Executive Officer is the CODM as he is the ultimate decision maker for key operating decisions, determining the allocation of resources and assessing the financial performance of the Company. These decisions, allocations and assessments are performed by the CODM using consolidated financial information. Consolidated financial information is utilized by the CODM as the Company's current product offering primarily consists of minimally invasive therapeutic ultrasonic medical devices. The Company's products are relatively consistent and manufacturing is centralized and consistent across product offerings. Based on these factors, key operating decisions and resource allocations are made by the CODM using consolidated financial data and as such the Company has concluded that it operates as one segment.

Worldwide revenue for the Company's products is categorized as follows:

	For the year ended June 30,	
	2019	2018
Total		
Consumables	$ 28,371,517	$ 23,596,476
Equipment	10,476,974	9,073,350
License	-	4,010,000
Total	$ 38,848,491	$ 36,679,826
Domestic:		
Consumables	$ 20,561,273	$ 17,735,749
Equipment	2,414,435	2,308,614
License	-	-
Total	$ 22,975,708	$ 20,044,363
International:		
Consumables	$ 7,810,244	$ 5,860,727
Equipment	8,062,539	6,764,736
License	-	4,010,000
Total	$ 15,872,783	$ 16,635,463

Substantially all of the Company's long-lived assets are located in the United States.

12. Quarterly Results (unaudited)

	Fiscal 2019				
	Q1	Q2	Q3	Q4	Year
Revenue	$ 9,361,164	$ 10,176,453	$ 9,556,590	$ 9,754,284	$ 38,848,491
Cost of goods sold	2,750,543	3,048,079	2,801,571	2,968,146	11,568,339
Gross profit	6,610,621	7,128,374	6,755,019	6,786,138	27,280,152
Operating expenses:					
Selling expenses	4,735,005	4,800,643	4,414,710	4,393,479	18,343,837
General and administrative expenses	3,183,384	2,347,184	2,512,510	3,835,131	11,878,209
Research and development expenses	1,304,766	839,219	1,426,483	897,501	4,467,969
Total operating expenses	9,223,155	7,987,046	8,353,703	9,126,111	34,690,015
Loss from operations	(2,612,534)	(858,672)	(1,598,684)	(2,339,973)	(7,409,863)
Other income/(expense):					
Interest income	19,813	17,242	22,653	30,148	89,856
Other	(18,265)	1,097	(13,650)	(7,425)	(38,243)
Total other income	1,548	18,339	9,003	22,723	51,613
Loss before income taxes	(2,610,986)	(840,333)	(1,589,681)	(2,317,250)	(7,358,250)
Income tax expense	-	-	-	28,547	28,547
Net loss	$ (2,610,986)	$ (840,333)	$ (1,589,681)	$ (2,345,797)	$ (7,386,797)
Net loss per share:					
Basic	$ (0.29)	$ (0.09)	$ (0.17)	$ (0.25)	$ (0.79)
Diluted	$ (0.29)	$ (0.09)	$ (0.17)	$ (0.25)	$ (0.79)
Weighted average shares - Basic	9,100,123	9,322,237	9,390,665	9,428,938	9,333,117
Weighted average shares - Diluted	9,100,123	9,322,237	9,390,665	9,428,938	9,333,117

	Fiscal 2018				
	Q1	Q2	Q3	Q4	Year
Revenue					
Product	$ 7,280,723	$ 8,323,845	$ 8,429,132	$ 8,636,126	$ 32,669,826
License	-	-	4,010,000	-	4,010,000
Total revenue	7,280,723	8,323,845	12,439,132	8,636,126	36,679,826
Cost of goods sold	2,177,355	2,465,826	2,631,893	2,519,824	9,794,898
Gross profit	5,103,368	5,858,019	9,807,239	6,116,302	26,884,928
Operating expenses:					
Selling expenses	3,570,713	3,919,515	4,447,421	4,430,732	16,368,381
General and administrative expenses	2,573,131	2,380,860	1,925,086	2,184,062	9,063,139
Research and development expenses	901,274	957,204	1,199,895	1,335,776	4,394,149
Total operating expenses	7,045,118	7,257,579	7,572,402	7,950,570	29,825,669
Income (loss) from operations	(1,941,750)	(1,399,560)	2,234,837	(1,834,268)	(2,940,741)
Other income (expense):					
Interest income	13	45	9,074	16,991	26,123
Royalty income and license fees	452,971	71,550	916	1	525,438
Other	(4,458)	(4,387)	(5,712)	16,831	2,274
Total other income	448,526	67,208	4,278	33,823	553,835
Loss from continuing operations before income taxes	(1,493,224)	(1,332,352)	2,239,115	(1,800,445)	(2,386,906)
Income tax expense (benefit)	(281,000)	5,524,422	-	173,224	5,416,646
Net income (loss) from continuing operations	(1,212,224)	(6,856,774)	2,239,115	(1,973,669)	(7,803,552)
Income from discontinued operations net of tax	-	-	-	191,117	191,117
Net income (loss)	$ (1,212,224)	$ (6,856,774)	$ 2,239,115	$ (1,782,552)	$ (7,612,435)
Net income (loss) per share:					
Continuing operations:					
Basic	$ (0.14)	$ (0.76)	$ 0.24	$ (0.22)	$ (0.87)
Diluted	$ (0.14)	$ (0.76)	$ 0.23	$ (0.22)	$ (0.87)
Discontinued operations					
Basic	$ -	$ -	$ -	$ 0.02	$ 0.02
Diluted	$ -	$ -	$ -	$ 0.02	$ 0.02
Combined					
Basic	$ (0.14)	$ (0.76)	$ 0.24	$ (0.20)	$ (0.85)
Diluted	$ (0.14)	$ (0.76)	$ 0.23	$ (0.20)	$ (0.85)
Weighted average shares - Basic	8,958,405	8,977,984	9,028,506	9,037,046	9,009,189
Weighted average shares - Diluted	8,958,405	8,977,984	9,549,144	9,037,046	9,009,189

SCHEDULE II

Description	Balance at beginning of period	Additions charged to cost and expenses	(Deductions)	Balance at end of period
Allowance for doubtful accounts				
As of June 30:				
2019	$ 200,000	$ -	$ (100,000)	$ 100,000
2018	$ 96,868	$ 103,132	$ -	$ 200,000

Description	Balance at beginning of period	Additions charged (credited) to cost and expenses	(Deductions)	Balance at end of period
Deferred tax valuation allowance				
As of June 30:				
2019	$ 4,096,353	$ 1,278,819	$ -	$ 5,375,172
2018	$ 628,730	$ 3,467,623	$ -	$ 4,096,353

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Misonix, Inc.
Farmingdale, New York

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (File No. 333-223878) and Forms S-8 (File No. 333-203944, File No. 333-188554, File No. 333-165088, File No. 333-130874, File No. 333-63166, File No. 333-78795, File No. 333-18907, File No. 333-73924 and File No. 333-219348) of Misonix, Inc. of our reports dated September 5, 2019, relating to the consolidated financial statements (which report on the consolidated financial statements expresses an unqualified opinion and includes an emphasis-of-matter paragraph regarding the adoption of FASB issued Accounting Standards No. 606 "Revenue from Contracts with Customers (Topic 606)" and financial statement schedule, which appear in the Annual Report to shareholders, which is incorporated by reference in this Annual Report on Form 10-K. Our report on the effectiveness of internal control over financial reporting expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting as of June 30, 2019.

/s/ BDO USA, LLP

Melville, New York
September 5, 2019

Exhibit 31.1

CERTIFICATIONS

I, Stavros G. Vizirgianakis, certify that:

1. I have reviewed this annual report on Form 10-K of MISONIX, INC.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. the registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

September 5, 2019

By: /s/ Stavros G. Vizirgianakis
Stavros G. Vizirgianakis
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Joseph P. Dwyer, certify that:

1. I have reviewed this annual report on Form 10-K of MISONIX, INC.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

September 5, 2019

By: /s/ Joseph P. Dwyer
Joseph P. Dwyer
Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of MISONIX, INC. (the "Company") on Form 10-K for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Stavros G. Vizirgianakis, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

September 5, 2019

By: /s/ Stavros G. Vizirgianakis
Stavros G. Vizirgianakis
Chief Executive Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to MISONIX, INC. and will be retained by MISONIX, INC. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of MISONIX, INC. (the "Company") on Form 10-K for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Joseph P. Dwyer, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

September 5, 2019

By: /s/ Joseph P. Dwyer
Joseph P. Dwyer
Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to MISONIX, INC. and will be retained by MISONIX, INC. and furnished to the Securities and Exchange Commission or its staff upon request.