



**Neovasc Inc.
Management's
Discussion and Analysis**

**FOR THE THREE AND NINE MONTHS ENDED
SEPTEMBER 30, 2019 AND 2018**

(Expressed in U.S. Dollars)

**Q3
2019**

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") covers the unaudited condensed interim consolidated financial statements of Neovasc Inc. (the "Company", "Neovasc", "we", "us", or "our") for the three and nine months ended September 30, 2019 and 2018.

This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements and notes thereto for the three and nine months ended September 30 2019 and 2018 (included as part of Neovasc's quarterly filing) as well as the audited consolidated financial statements and notes thereto and the MD&A for the years ended December 31, 2018, 2017 and 2016 and Annual Report on Form 20-F.

The Company has prepared this MD&A with reference to National Instrument 51-102 – Continuous Disclosure Obligations of the Canadian Securities Administrators.

The names Tiara™ ("Tiara"), and Neovasc Reducer™ ("Reducer") are our trademarks; other trademarks, product names and company names appearing herein are the property of their respective owners.

All financial information is prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. The Company presents its consolidated financial statements in U.S. dollars.

On September 18, 2018, the Company effected a share consolidation (reverse stock split) of its issued and outstanding common shares in the capital of the Company (the "Common Shares") on the basis of one post-consolidation Common Share for every one hundred pre-consolidation Common Shares. On June 25, 2019, the Company effected a share consolidation (reverse stock split) of its issued and outstanding Common Shares on the basis of one post-consolidation Common Share for every ten pre-consolidation Common Shares. All references in this MD&A to Common Shares and options have been retroactively adjusted to reflect the share consolidations. The number of warrants and aggregate principle amount of the notes outstanding were not affected by the consolidations, but the Common Shares issuable upon exercise of the warrants or conversion of the notes have been and will be adjusted in accordance with the adjustment provisions in such warrant or note, as applicable.

Additional information about the Company, including the Company's audited consolidated financial statements and Annual Report on Form 20-F, is available on SEDAR at www.sedar.com and as filed with the U.S. Securities and Exchange Commission (the "SEC") on the website of the SEC at www.sec.gov.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND RISK FACTORS

This MD&A contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. The words "expect", "anticipate", "plan", "may", "will", "estimate", "continue", "intend", "believe", "target", "potential", "seek", "explore" and other similar words or expressions are intended to identify such forward-looking statements. Forward-looking statements are necessarily based on estimates and assumptions made by us in light of our experience and perception of historical trends, current conditions and expected future developments, as well as the factors we believe are appropriate. Forward-looking statements in this MD&A include, but are not limited to, statements relating to:

- our ability to continue as a going concern;
- our need for significant additional financing and our estimates regarding our capital requirements and future revenues, expenses and profitability;
- our intended use of the net proceeds from the May 2019 private placement offering of secured convertible debentures and Common Shares (the "May 2019 Financing")
- our intended use of the net proceeds from the February 2019 underwritten public offering of Common Shares (the "February 2019 Financing") and from the March 2019 underwritten public offering of Common Shares (the "March 2019 Financing", and together with the May 2019 Financing and February 2019 Financing, the "2019 Financings");
- our estimates regarding our fully diluted share capital and future dilution to shareholders;

- our intention to expand the indications for which we may market the Tiara (which does not have regulatory approval and is not commercialized) and the Reducer (which has CE Mark approval for sale in the European Union);
- clinical development of our products, including the results of current and future clinical trials and studies;
- our intention to apply for CE Mark approval for the Tiara in approximately 2020 and to explore options to seek earlier CE-Mark approval;
- the anticipated timing of additional implantations in the TIARA-II trial and our intention to initiate additional investigational sites in 2019 as required approvals are obtained;
- our plans to develop and commercialize products, including the Tiara, and the timing and cost of these development programs;
- our plans to develop and commercialize the Tiara transfemoral trans-septal system, including our ability to improve current prototypes;
- our ability to replace historical revenues from the tissue and consulting services businesses with revenues from the Reducer and the Tiara in a timely manner;
- whether we will receive, and the timing and costs of obtaining, regulatory approvals;
- our efforts to obtain approval for entrance into the U.S. market for the Reducer, including our discussions with the U.S. Food and Drug Administration (the “FDA”) and potential pathways to the U.S. market;
- the cost of post-market regulation if we receive necessary regulatory approvals;
- our ability to enroll patients in our clinical trials, studies and compassionate use cases in Canada, the United States, Europe and Israel;
- our ability to advance and complete the COSIRA-II IDE pivotal clinical trial;
- our intention to continue directing a significant portion of our resources into sales expansion;
- our ability to get our products approved for use;
- the benefits and risks of our products as compared to others;
- our ability to find strategic alternatives for adoption of the Reducer, including potential alliances in order to broaden and deepen therapy penetration and potentially advance the COSIRA-II study;
- our plans to increase Reducer implants in Europe in 2019;
- our expectation that in 2019 more German clinics will negotiate and finalize reimbursement negotiations with German insurance companies relating to the Reducer;
- our estimates of the size of the potential markets for our products including the anticipated market opportunities for the Reducer and the Tiara;
- our potential relationships with distributors and collaborators with acceptable development, regulatory and commercialization expertise and the benefits to be derived from such collaborative efforts;
- sources of revenues and anticipated revenues, including contributions from distributors and other third parties, product sales, license agreements and other collaborative efforts for the development and commercialization of products;
- our ability to meet our financial and organizational restructuring goals to establish a lean and accountable organization with stable capitalization;
- our ability to meet our cash expenditure covenants;
- our creation of an effective direct sales and marketing infrastructure for approved products we elect to market and sell directly;
- the rate and degree of market acceptance of our products;
- the timing and amount of reimbursement for our products;
- the composition and compensation of our management team and board of directors;
- the impact of foreign currency exchange rates; and
- the composition and compensation of our board of directors and senior management team in the future.

Forward-looking statements are based on estimates and assumptions made by the Company in light of its experience and its perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances. Many factors could cause the Company's actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements, including, without limitation:

- risks relating to the possibility that our Common Shares may be delisted from the Nasdaq Capital Market or the Toronto Stock Exchange (“TSX”), which could affect their market price and liquidity;

- the substantial doubt about our ability to continue as a going concern;
- risks relating to the senior secured convertible notes (the “2017 Notes”) issued pursuant to the November 2017 private placement (the “2017 Private Placement”), resulting in significant dilution to our shareholders;
- risks relating to our need for significant additional future capital and our ability to raise additional funding;
- risks relating to cashless exercise and adjustment provisions in the 2017 Notes, which could make it more difficult and expensive for us to raise additional capital in the future and result in further dilution to investors;
- risks relating to the sale of a significant number of Common Shares;
- risks relating to the conversion of 2017 Notes, which may encourage short sales by third parties;
- risks relating to the Company’s conclusion that it did not have effective internal control over financial reporting (“ICFR”) as of December 31, 2018;
- risks relating to our Common Share price being volatile;
- risks relating to the influence of significant shareholders of the Company over our business operations and share price;
- risks relating to our significant indebtedness, and its effect on our financial condition;
- risks relating to claims by third parties alleging infringement of their intellectual property rights;
- risks relating to lawsuits that we are subject to, which could divert our resources and result in the payment of significant damages and other remedies;
- our ability to establish, maintain and defend intellectual property rights in our products;
- risks relating to results from clinical trials of our products, which may be unfavorable or perceived as unfavorable;
- our history of losses and significant accumulated deficit;
- risks associated with product liability claims, insurance and recalls;
- risks relating to use of our products in unapproved circumstances, which could expose us to liabilities;
- risks relating to competition in the medical device industry, including the risk that one or more competitors may develop more effective or more affordable products;
- risks relating to our ability to achieve or maintain expected levels of market acceptance for our products, as well as our ability to successfully build our in-house sales capabilities or secure third-party marketing or distribution partners;
- our ability to convince public payors and hospitals to include our products on their approved products lists;
- risks relating to new legislation, new regulatory requirements and the efforts of governmental and third-party payors to contain or reduce the costs of healthcare;
- risks relating to increased regulation, enforcement and inspections of participants in the medical device industry, including frequent government investigations into marketing and other business practices;
- risks associated with the extensive regulation of our products and trials by governmental authorities, as well as the cost and time delays associated therewith;
- risks associated with post-market regulation of our products;
- health and safety risks associated with our products and our industry;
- risks associated with our manufacturing operations, including the regulation of our manufacturing processes by governmental authorities and the availability of two critical components of the Reducer;
- risk of animal disease associated with the use of our products;
- risks relating to the manufacturing capacity of third-party manufacturers for our products, including risks of supply interruptions impacting the Company’s ability to manufacture its own products;
- risks relating to our dependence on limited products for substantially all of our current revenues;
- risks relating to our exposure to adverse movements in foreign currency exchange rates;
- risks relating to the possibility that we could lose our foreign private issuer status under U.S. federal securities laws;
- risks relating to breaches of anti-bribery laws by our employees or agents;
- risks associated with future changes in financial accounting standards and new accounting pronouncements;
- risks relating to our dependence upon key personnel to achieve our business objectives;
- our ability to maintain strong relationships with physicians;
- risks relating to the sufficiency of our management systems and resources in periods of significant growth;
- risks associated with consolidation in the health care industry, including the downward pressure on product pricing and the growing need to be selected by larger customers in order to make sales to their members or participants;

- risks relating to our ability to successfully identify and complete corporate transactions on favorable terms or achieve anticipated synergies relating to any acquisitions or alliances;
- risks relating to our ability to successfully enter into fundamental transactions as defined in the 2017 Notes;
- anti-takeover provisions in our constating documents which could discourage a third party from making a takeover bid beneficial to our shareholders; and
- risks relating to conflicts of interests among the Company's officers and directors as a result of their involvement with other issuers.

Forward-looking statements reflect our current views with respect to future events and are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by us, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies, many of which, with respect to future events, are subject to change. The material factors and assumptions used by us to develop such forward-looking statements include, but are not limited to:

- our ability to continue as a going concern;
- our regulatory and clinical strategies will continue to be successful;
- our current positive interactions with regulatory agencies will continue;
- recruitment to clinical trials and studies will continue;
- the time required to enroll, analyze and report the results of our clinical studies will be consistent with projected timelines;
- current and future clinical trials and studies will generate the supporting clinical data necessary to achieve approval of marketing authorization applications;
- the regulatory requirements for approval of marketing authorization applications will be maintained;
- our current good relationships with our suppliers and service providers will be maintained;
- our estimates of market size and reports reviewed by us are accurate;
- our efforts to develop markets and generate revenue from the Reducer will be successful;
- genericisation of markets for the Tiara and the Reducer will develop;
- capital will be available on terms that are favorable to us; and
- our ability to retain and attract key personnel, including members of our board of directors and senior management team.

By their very nature, forward-looking statements or information involve known and unknown risks, uncertainties and other factors that may cause our actual results, events or developments, or industry results, to be materially different from any future results, events or developments expressed or implied by such forward-looking statements or information. In evaluating these statements, prospective purchasers should specifically consider various factors, including the risks outlined herein, under "*Risk Factors*" in our Annual Report on Form 20-F, which is available on SEDAR at www.sedar.com and as filed with the SEC at www.sec.gov. These factors should be considered carefully, and readers should not place undue reliance on the Company's forward-looking statements. Should one or more of these risks or uncertainties or a risk that is not currently known to us materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results may vary materially from those described herein. These forward-looking statements are made as of the date of this MD&A and we do not intend, and do not assume any obligation, to update these forward-looking statements, except as required by law. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to their inherent uncertainty.

The Company advises you that these cautionary remarks expressly qualify in their entirety all forward looking statements attributable to the Company or persons acting on its behalf.

Date: November 7, 2019

OVERVIEW

Description of the Business

Neovasc is a specialty medical device company that develops, manufactures and markets products for the rapidly growing cardiovascular marketplace. Its products include the Reducer, for the treatment of refractory angina, which is not currently commercially available in the United States and has been commercially available in Europe since 2015, and the Tiara, for the transcatheter treatment of mitral valve disease, which is currently under clinical investigation in the United States, Canada and Europe.

Neovasc's business operations started in March 2002, with the acquisition of Neovasc Medical Inc. ("NMI") (formerly PM Devices Inc.). NMI manufactured a line of collagen based surgical patch products. The products are made from chemically treated pericardial tissue. In 2012, the Company sold the rights to the surgical patch products to LeMaitre Vascular, Inc. ("LeMaitre"), but retained rights to the underlying tissue technology for all other uses.

In May 2003, Neovasc acquired Angiometrx Inc. ("ANG"). ANG developed a technology called the Metricath, a catheter-based device that allowed clinicians to measure artery and stent size and confirm deployment during interventional treatment of coronary and peripheral artery disease. In 2009, Neovasc ceased all activities related to Metricath and on January 1, 2015 ANG was amalgamated into NMI.

In July 2008, Neovasc acquired two pre-commercial vascular device companies based in Israel: Neovasc Medical Ltd. ("NML") and B-Balloon Ltd. ("BBL"). NML developed and owned intellectual property related to the Reducer, a novel catheter-based treatment for refractory angina, a debilitating condition resulting from inadequate blood flow to the heart muscle. In 2009, Neovasc ceased all activities related to BBL's technologies and is in the process of voluntarily liquidating BBL.

In late 2009, Neovasc started initial activities to develop novel technologies for the catheter-based treatment of mitral valve disease. Based on the positive results of these activities, the Company launched a program to develop the Tiara transcatheter mitral valve.

In late 2016, Neovasc sold its tissue processing technology and facility for \$67,909,800 to Boston Scientific Corporation ("Boston Scientific"), and concurrently, Boston Scientific invested an additional \$7,090,200 in Neovasc for a 15% equity interest in the Company. Under the terms of the equity investment, Boston Scientific purchased 11,817 common shares of Neovasc at a price of \$600 per common share, for gross proceeds of \$7,090,200. Under the terms of the asset purchase agreement, Neovasc has been granted a license to the purchased assets and access to the sold facilities to allow it to continue its tissue and valve assembly activities for its remaining customers, and continue its own tissue-related programs, including advancing the Tiara through its clinical and regulatory pathways.

Additionally, throughout the years 2014 to 2017, the Company announced a number of developments pertaining to litigation, all as more fully discussed under the heading "Trends, Risks and Uncertainties" and "Contractual Obligations and Contingencies" herein.

In November 2017, Neovasc completed the 2017 underwritten public offering (the "2017 Public Transaction" and collectively with the 2017 Private Placement, the "2017 Financings") and the 2017 Private Placement, for aggregate gross proceeds of approximately \$65 million. The Company used the net proceeds of the 2017 Financings to fully fund the approximately \$42 million balance of the damages and interest awards in its litigation with Edwards Lifesciences CardiAQ LLC ("CardiAQ") formerly known as CardiAQ Valve Technologies Inc., (after subtracting the approximately \$70 million that the Company had paid into escrow), with remaining funds being used (i) to partially fund the ongoing Tiara clinical program; (ii) to support the completion of the TIARA-II study; and (iii) for general corporate purposes. The only securities issued pursuant to the 2017 Financings that remain outstanding are \$6,874,000 aggregate principal amount of the 2017 Notes. For a description of the terms of the 2017 Financings and the securities issued pursuant to the 2017 Financings, see "Operating Results" and "Share Capital" of the Company's Annual Report on Form 20-F and the prospectus supplement, dated November 10, 2017 (the "Prospectus Supplement") and the form of 2017 Notes, each as filed or furnished under the Company's profiles on SEDAR at www.sedar.com and on the SEC's website at www.sec.gov.

On February 28, 2019, the Company completed an underwritten public offering of 1,111,111 Common Shares, at a price of \$4.50 per Common Share, for gross proceeds of approximately \$5 million before deducting the underwriting commission and offering expenses payable by the Company. The Company intends to use the approximately \$3.9 million net proceeds of the February 2019 Financing for the development and commercialization of the Reducer, development of the Tiara and general corporate and working capital purposes. As part of the underwriter's compensation in the February 2019 Financing, the Company issued the underwriter warrants (the "February Broker Warrants") to purchase in aggregate up to a 72,222 Common Shares, exercisable at a price per Common Share equal to \$5.625 for a period of three years following issuance.

On March 15, 2019, the Company completed an underwritten public offering of 1,111,111 Common Shares, at a price of \$4.50 per Common Share, for gross proceeds of approximately \$5 million before deducting the underwriting commission and offering expenses payable by the Company. The Company intends to use the approximately \$4.2 million net proceeds of the March 2019 Financing for the development and commercialization of the Reducer, development of the Tiara and general corporate and working capital purposes. As part of the underwriter's compensation in the March 2019 Financing, the Company issued the underwriter warrants (the "March Broker Warrants", and together with the February Broker Warrants, the "Broker Warrants") to purchase in aggregate up to a 72,222 Common Shares, exercisable at a price per Common Share equal to \$5.625 for a period of three years following issuance.

On May 16, 2019, the Company completed the May 2019 Financing of (i) 15% original issue discount convertible notes ("2019 Notes") with a face value of \$11.5 million, for gross proceeds to the Company of \$9,775,000, and (ii) 334,951 common shares of the Company at a price of \$5.15 per Common Share, for gross proceeds to the Company of \$1,725,000.

On June 4, 2019, Dr. William O'Neill resigned from the board of Directors and Fred Colen was elected in his place, and on September 16, 2019, Jane Hsiao resigned from the board of Directors and Norman Radow was appointed in her place.

On August 22, 2019, the Company received written notification (the "Notification Letter") from the Nasdaq notifying the Company that it is not in compliance with the minimum market value requirement set forth in Nasdaq Rules for continued listing on the Nasdaq Capital Market. Nasdaq Listing Rule 5550(b)(2) requires companies to maintain a minimum market value of US\$35 million and Listing Rule 5810(c)(3)(C) provides that a failure to meet the market value requirement exists if the deficiency continues for a period of 30 consecutive business days. Based on the market value of the Company for the 30 consecutive business days from July 10, 2019 to August 20, 2019, the Company no longer meets the minimum market value requirement. The Notification Letter does not impact the Company's listing on the Nasdaq Capital Market at this time. In accordance with Nasdaq Listing Rule 5810(c)(3)(C), the Company has been provided 180 calendar days, or until February 17, 2020, to regain compliance with Nasdaq Listing Rule 5550(b)(2). To regain compliance, the Company's market value must exceed US\$35 million for a minimum of 10 consecutive business days. In the event the Company does not regain compliance by February 17, 2020, the Company may be eligible for additional time to regain compliance or may face delisting.

The Company and its subsidiaries now operate as follows: Neovasc Inc. is the Canadian public company and 100% owner of each of the subsidiary entities. NMI and Neovasc (US) Inc. ("NUS") are the operating companies for the group. They hold the majority of the tangible assets and NMI holds the Peripatch tissue license. NMI and NUS employ the majority of the employees of the Company. Neovasc Tiara Inc. ("NTI") holds all the intangible assets related to the Tiara and NML holds all the intangible assets related to the Reducer program. NMI charges both NTI and NML for the development services performed by its employees to develop the Tiara and the Reducer respectively. NML receives a royalty based on the Reducer revenues generated by NMI. NUS charges NMI for development services performed by its employees to develop the Tiara and the Reducer respectively and these are then passed on through NMI to NTI and NML respectively. Neovasc GmbH conducts sales and marketing activities on behalf of NMI as part of the license agreement between NML and NMI for NMI to manufacture, distribute and sell the Reducer on behalf of NML. Neovasc Management Inc provides executive management services to Neovasc Inc.

Neovasc's Strategy

The Company's core strategy is to focus on re-establishing trust and confidence with its stakeholders, to re-structure the Company's financing and to continue the development and commercialization of its products, the Tiara and the Reducer, providing minimally invasive medical devices for a cardiovascular market that the Company believes is both growing and under-served by current treatment solutions.

Key elements of this strategy include:

- Tiara — expanding the Company’s clinical experience of the Tiara, continuing enrollment in and expansion of the TIARA-II multi-center CE Mark clinical study, and applying for CE Mark approval in approximately 2020, while exploring options to seek earlier CE-Mark approval. Finalizing the TIARA-I study; enrollment in the TIARA-I study will be closed on November 15 (25 patients have been enrolled to date). Development of the conceptually established transfemoral trans-septal Tiara system for preclinical bench and animal studies and to successful completion, followed by initiation of a first human feasibility clinical study.
- Reducer — continuing therapy development of the Reducer, and supplementing the successful COSIRA prospective, multicenter, randomized, double-blind, sham-controlled clinical study with additional clinical experience through the Company’s targeted commercial launch of the Reducer in Europe and enrollment in the REDUCER-I, real world post-market observational clinical study. Improving revenue growth in Europe by leveraging the renewed NUB 1 status in Germany and by further accelerated therapy development. Seeking strategic alternatives and alliances to build on the growing enthusiasm in the market for, and adoption of, the Reducer, in order to broaden and deepen therapy penetration in Europe, the Middle East and Africa. Continuing to execute on our U.S. strategy and work with the FDA to fine tune the requirements for entrance into the U.S. market. The FDA provided the Company with potential alternate approaches to access the U.S. market during our discussion with them on June 26, 2019, such as the Humanitarian Device Exemption (“HDE”) pathway for class IV refractory angina patients and/or alternate clinical trial designs for a broader refractory angina patient population. Following the last Sprint discussion held with the FDA on October 9, 2019 and weighing all available options a final decision was made by the Company to pursue a full PMA application for this Breakthrough medical device. The Company believes that the totality of clinical evidence from the COSIRA study, REDUCER-I European Post-Market study (with over 200 of 400 patients enrolled), and multiple independent studies published in peer-reviewed journals, will provide reasonable assurance of safety and effectiveness to support a PMA. Neovasc plans to submit the PMA application prior to the end of 2019 with a request for an Advisory Panel meeting. While any pathway to U.S. market approval by the FDA carries considerable risk, and there can be no assurance that the PMA will be approved by the FDA in a timely manner or at all, we believe the full PMA application pathway brings the best chance of success within reasonable cost and time constraints. After evaluating the different options, we concluded that the HDE pathway would likely not be a viable option based on the definition of a Humanitarian Use Device within the FDA Guidance and that the PMA pathway would be our best option to bring Reducer to the U.S. market to treat refractory angina patients. While an additional post-market study will most likely be needed and the body of real-world evidence continues to grow, the Company believes that the clinical evidence already available will be sufficient to not further delay the availability of this Breakthrough medical device for the treatment of U.S. patients. The Company’s expectations regarding the PMA pathway bringing the best chance of success within reasonable cost and time constraints compared to the other options the Company had been considering could prove to be incorrect. In the event that the PMA is approved by the FDA, there can be no assurance that Neovasc will be successful in commencing commercialization of Reducer in the United States on a timely basis or at all, or of the total addressable market size for Reducer.
- Financial and organizational restructuring to establish a lean and accountable organization with stable capitalization. We are currently exploring additional financing options to bring additional capital into the Company and will provide public updates when appropriate.

Product Portfolio

Tiara

In 2009, Neovasc started initial activities to develop novel technologies for catheter-based treatment of mitral valve disease. In the second quarter of 2011, the Company formally initiated a new project to develop the Tiara, a product for treating mitral valve disease. The transapically delivered Tiara is currently in the clinical trial phase providing a minimally invasive transcatheter device for patients who experience severe Mitral Regurgitation as a result of functional (most patients) or degenerative mitral heart valve disease, combined with an enlarged left ventricle. There are millions of patients worldwide who suffer from severe Mitral valve regurgitation, the majority of them with functional Mitral Regurgitation. The unmet medical need in these patients is high. Mitral Regurgitation is often severe and can lead to heart failure and death. Currently, a significant percentage of patients with severe Mitral Regurgitation are not good candidates for conventional surgical repair

or replacement due to frailty or comorbidities. Many of these patients are treated today via minimally invasive mitral valve repair procedures; however, these procedures are also complex, can take a long period of time to complete, and the clinical outcomes may not be optimal. Currently there is no transcatheter mitral valve replacement device approved for use in any market.

Our clinical experience to date has been with the 35 mm and 40 mm Tiara valve. First clinical use of the 40mm Tiara occurred in the fourth quarter of 2015. These two sizes allow for the treatment of approximately 75% of the annulus sizes in this high-risk patient population, in our TIARA-I and TIARA-II Clinical Studies. Currently, approximately 20% of this high-risk patient population meet all inclusion criteria for the Tiara studies and can be treated.

As of November 5, 2019, 79 patients have been treated with Tiara in either the TIARA-I Early Feasibility Clinical Study, compassionate use cases or in our TIARA-II CE Mark Clinical Study. Neovasc believes that early results have been encouraging. The 30-day survival rate for the 79 patients treated with the Tiara is 89% with one patient now over five and a half years post implant. The Tiara has successfully treated both functional and degenerative Mitral Regurgitation patients, as well as patients with pre-existing prosthetic aortic valves and mitral surgical annuloplasty rings. On November 6, 2019 the clinical sites participating in the TIARA-I study were advised that we will be closing enrollment in the study as of November 15th. This decision was not due to any safety concerns. The objective of the TIARA-I Early Feasibility study was to demonstrate the safety of the Neovasc TMVR system, while gathering preliminary information on device performance and clinical outcomes. With the experience to date, we believe that we have accomplished this objective. The patients that are in follow-up will continue to be followed with continued follow up assessments, reporting requirements, etc. as per protocol through their 5-year visits. This decision has no impact on the currently enrolling TIARA-II CE Mark Study.

There are currently 18 active sites across Germany, Israel, Spain, the Netherlands and the UK with additional sites in the process of obtaining regulatory approvals.

The results from our clinical experience to-date continues to demonstrate the potential benefit for patients who otherwise have no treatment options. Patient selection continues to be challenging as the Company and clinical community continue to learn more about treating this population of very sick patients.

Neovasc believes that there are several unique attributes of the Tiara that may provide advantages over other approaches to mitral valve replacement, in particular the low atrial profile, its D shape, enabling a better anatomical fit and less risk of left ventricular outflow tract obstruction, and its unique combined skirt and anchoring mechanism. The Tiara has successfully treated 17 patients with previous aortic valves (AVR), including mechanical, bioprosthetic and TAVI, without any LVOT obstruction, no peri-procedural deaths or paravalvular leak. Data on the first twelve patients with previous AVR, treated with Tiara was published in 2018 in *Circulation: Cardiovascular Interventions*.

There are several other transcatheter mitral valve replacement devices in development by third parties, some of which have been implanted in early feasibility type studies, pivotal U.S. studies, and CE Mark studies with varying results. There is no certainty that the Tiara will successfully proceed through clinical evaluation and ultimately receive regulatory approval to treat these patients, nor is it possible to determine at this time if any of the other development-stage devices will succeed in obtaining regulatory approval.

The Tiara valve is made up of two major components: the leaflets which are made from the Peripatch bovine tissue licensed from Boston Scientific, a fabric skirt, and the nitinol frame (to which the leaflets and skirt are attached), which is manufactured by a well-established specialty manufacturer in the medical device industry. If this supplier were unable to provide the nitinol frame in the future, it would seriously impact further development of the Tiara. The Tiara delivery system is manufactured, packaged and labelled in-house by the Company using customized standard catheter construction components that are readily available through vendors.

The TIARA-II study is estimated to cost approximately \$15 million. While many challenges remain prior to achieving commercialization (including, but not limited to, positive clinical trial and study results and obtaining regulatory approval from the relevant authorities), the Company believes the Tiara is being recognized as one of the leading mitral valve replacement devices. Neovasc is managing and conducting the TIARA-II study itself in conjunction with certain service providers who undertake portions of data collection, data management, data analysis, safety and event monitoring and similar functions. The Tiara is currently manufactured for use in these studies by Neovasc at its own facilities following required medical device quality requirements. In the event of a positive outcome from the TIARA-II study and the Company

successfully obtaining CE Mark approval, the Tiara would be commercially manufactured in the same manner at Neovasc's facility.

Regulatory Status

The Tiara is an early-stage development product without regulatory approvals in any country. The Company intends to continue to fund development of the product as cash flow allows and is targeting applying for CE Mark approval in Europe in approximately 2020, assuming sufficient patients will have been enrolled with sufficient follow-up time by then and will explore options to seek earlier CE-Mark approval. There is no assurance that European regulatory filing and an approval will be granted in the time frame anticipated by management or granted at any time in the future. There is no expectation that this product will be revenue-generating in the near term, although management believes that the product is addressing an important unmet clinical need.

On November 28, 2016, the Company announced that it had received both regulatory and ethics committee approval to initiate the TIARA-II study in Italy. Since then Neovasc has received regulatory and ethics committee approvals to conduct the study in Germany, Israel, Spain, the Netherlands and the United Kingdom.

Reducer

The Reducer is a treatment for patients with refractory angina, a painful and debilitating condition that occurs when the coronary arteries deliver an inadequate supply of blood to the heart muscle, despite treatment with standard revascularization or cardiac drug therapies.

Worldwide, coronary artery disease ("CAD") is the leading cause of death. It is the largest contributor to the global burden of disease as reflected in disability-adjusted life years, a measure which combines premature mortality and the prevalence and severity of ill-health. On this measure, the impact of CAD increased by 29% in the period 1990 to 2010. This reflects the worldwide shift to those chronic diseases associated with an ageing global population. The most frequent (and often the first) manifestation of stable CAD is chronic stable angina. As a result, angina is a significant burden of healthcare systems worldwide. There is a clear association between more frequent angina and greater utilization of healthcare resources.

Refractory angina, resulting in continued symptoms despite maximal medical therapy without revascularization options, is estimated to affect 600,000 to 1.8 million Americans, with 50,000 to 100,000 new cases per year. A recent publication in the Cardiovascular Revascularization Medicine Journal by Benck and Henry suggests that the prevalence of No-Option Refractory Disabling Angina (NORDA) in the U.S. population is between 26,000 and 52,000. In another publication in the European Heart Journal by Crea et al., stated persistence of angina caused by incomplete coronary revascularization may occur in up to 30% in the current era, although definitions of incomplete revascularization are heterogeneous. It further stated that persistent angina is associated with a significant economic burden with healthcare costs almost being two-fold higher among patients with persistent angina post-percutaneous coronary intervention vs. those who become symptom free.

The pain and shortness of breath associated with refractory angina can make it difficult for patients to engage in routine activities, such as walking or climbing stairs. Clinical studies demonstrate that the Reducer can provide significant relief of chest pain, shortness of breath and other debilitating symptoms in refractory angina patients. A significant proportion of the angina patients in the United States and in Europe are potential candidates for the current Reducer therapy, either because they cannot be revascularized or because they are otherwise poorly managed using conventional medical therapies. These patients represent a substantial potential market opportunity for the Reducer. There continues to be interest from the medical community to explore the use of Reducer for other indications. Further clinical trials will need to be conducted to explore this possibility.

The Reducer is targeting a patient population that has failed to gain relief of their symptoms, despite other medical treatment options. A refractory patient by definition is resistant to other therapies, existing interventional cardiology therapies and is not receiving adequate relief from available drug regimens to manage their chest pain, shortness of breath and other debilitating symptoms. As such there are currently no direct competitors to the Reducer as the patient will have exhausted all other treatment options before the Reducer is considered. Neovasc believes that further studies may demonstrate that additional patient populations may benefit from treatment with Reducer and thus could further increase its market potential.

The Reducer is an hourglass-shaped, balloon-expandable, stainless steel, bare metal device, which is implanted in the coronary sinus, creating a restriction in venous outflow from the myocardium (the muscular layer of the heart wall). It is implanted using conventional percutaneous, or needle puncture, techniques. The Reducer is provided sterile and pre-loaded on a balloon catheter system. The system is 9 French sheath compatible and operates over a .035 inch guide wire. The implant procedure requires minimal training for experienced interventionalists. Once guide wire access to the coronary sinus is achieved, implantation typically takes less than 20 minutes.

Using a catheter-based procedure, the Reducer is implanted in the coronary sinus (the main vein draining blood from the heart muscle). Following implantation, the Reducer becomes covered with endothelial tissue after about 4-6 weeks. This tissue coverage creates a permanent (but reversible, if necessary) narrowing in the coronary sinus. The coronary sinus is narrowed from a typical diameter of 10-12mm to approximately 3mm at the site of implantation. This focal narrowing provides a backwards pressure elevation in the coronary sinus which is intended to improve blood perfusion to ischemic territories of the heart muscle by forcing redistribution of blood from the less ischemic areas to the more ischemic areas of the heart muscle. This can result in improved perfusion of the endocardium, which helps relieve ischemia and chest pain, shortness of breath and other debilitating symptoms. The physiological mechanism behind this effect is well documented in medical literature.

The clinical utility of this approach was demonstrated by a number of analogous approaches used in the past that achieved positive clinical outcomes for angina patients by constricting or intermittently blocking the coronary sinus to improve perfusion to the heart muscle. However, these therapies required the use of highly invasive surgery, or leaving a catheter in the heart for a prolonged period, making them impractical or clinically unacceptable for use in modern medical practice. The Reducer was developed to deliver this therapy in a safe, simple and effective manner via a minimally invasive catheter that is consistent with contemporary medical practice.

The Reducer has demonstrated excellent results in multiple animal studies, a first-in-human clinical trial of fifteen patients suffering from chronic refractory angina who were followed out to six months, and then again at three years post implantation. The six-month results from this clinical trial were published in the Journal of the American College of Cardiology and three-year follow-up data was presented at the annual scientific meeting of the American College of Cardiology in March 2010. In this clinical trial, implantation of the Reducer resulted in significant clinical improvements in stress test and perfusion measurements, as well as in overall quality of life in the majority of the patients at six months and these same results were noted at the three year follow up. During this period, the Reducer appeared safe and well tolerated in these patients.

The Company completed the COSIRA trial, a prospective, multicenter, randomized, double-blind, sham-controlled study to assess the safety and effectiveness of the Reducer device in 2013. The COSIRA trial's primary endpoint was a two-class improvement in Angina symptoms, six months after implantation in patients' ratings on the CCS angina grading scale, a four-class functional classification that is widely used to characterize the severity of angina symptoms and disability. Only patients with severe angina, CCS Class III or IV, were enrolled in the COSIRA trial. The COSIRA trial analysis showed that the study met the primary endpoint, with patients receiving the Reducer achieving a statistically significant improvement in CCS scores (two classes or better) compared to patients receiving a sham control (18 of 52 [34.6%] of the Reducer patients improved ≥ 2 CCS classes compared to 8 of 52 [15.4%] of the control patients [p-value = 0.024]). The analysis also showed that patients treated with the Reducer showed a statistically significant improvement of one or more CCS classes compared to the sham control patients (37 of 52 [71.2%] of the Reducer patients showed this improvement compared to 22 of 52 [42.3%] of the control patients [p-value = 0.003]). The COSIRA trial results were published in the New England Journal of Medicine in February 2015.

In 2016, Neovasc initiated the REDUCER-I observational study as a multi-center, multi-country, three-arm study collecting long-term data from European patients implanted with the Reducer. The study is expected to enroll up to 400 patients. Currently, 224 patients have been enrolled across 23 centers that are active in Italy, Germany, Belgium, the Netherlands, the United Kingdom and Switzerland.

In 2018 an article by Parikh, Parth et al., was published in the Journal of the American College of Cardiology (JACC) titled, "First-in-Human Use of Coronary Sinus Reducer in Patients with Refractory Angina". This article describes the long-term structural, anatomic, and clinical durability of the Reducer. Reducers were patent 12 years following implantation, with no signs of strut fractures, dislocation, thrombosis, or migration, and sustained improvement in angina class at six months and three years. These results were also maintained at the 12-year follow-up.

Hundreds of patients have been enrolled in clinical studies conducted by third parties across Europe and Israel relating to the Reducer. These studies continue to show a strong safety profile and positive clinical results that trend closely to the COSIRA randomized study. Many of these studies have been published and presented in medical forums. It is anticipated that as the commercial use of the Reducer continues to expand, additional third-party studies, investigations and presentations will be undertaken. If the results from such third-party activities continue to show positive results from the product, they may provide additional data to support expanded adoption of the Reducer for the intended patient population. As a result of the clinical evidence from these studies and publications, the Reducer Therapy has now been recognized in the European Society of Cardiology Guidelines as a treatment option for refractory angina.

There have been numerous publications of clinical results since the COSIRA study was published in the New England Journal of Medicine in 2015. Recently a publication in the European Heart Journal by Gallone, et al., on the “Cost-effectiveness of the coronary sinus Reducer and its impact on the healthcare burden of refractory angina” indicated that the Reducer was consistently cost-effective according to a range of cost-effectiveness thresholds after just one year of implant.

Following the positive data from the COSIRA trial, the Company initiated a pilot launch of the Reducer in select European markets in early 2015. The Company has signed distribution agreements in multiple jurisdictions across Europe. Direct sales are underway in select centers in Germany. Based on the initial results from the targeted launch, Neovasc has developed an expanded sales plan and strategy for 2019 and beyond. Any sales of the product in the United States would follow obtaining U.S. regulatory approval, if such approval is granted, as described further below.

Based on achieving NUB 1 status in Germany and a general positive reception in the European market, with positive experiences by many physicians from the treatment of their own patients with the Reducer, we are seeing an increase in adoption of the Reducer therapy in Europe. The commercial progress for the Reducer in 2018 has been encouraging with a 55% increase in revenue compared to 2017 and 25% in the 9 months to September 30, 2019, compared to the same period in 2018.

The Reducer therapy requires broader therapy development in the market and in particular with referring physicians. The Company has launched pilot programs in Germany, with additional support from a professional therapy development organization, to learn more about therapy development challenges and opportunities.

We are seeing a growing level of enthusiasm in Europe for the Reducer therapy and we believe that the therapy has significant potential. In order to further accelerate the penetration of the therapy, we are open to considering strategic alternatives for the Reducer, including potential alliances in Europe, the United States and the rest of the world.

On January 18, 2018, the Company reported the Reducer was featured in a “live case” broadcast to more than 800 participants at the Kardiologie Symposium 2018 held in Berlin, Germany. The successful live case was performed by Dr. Spyrantis and Professor Banai in the Sana-Klinikum Lichtenberg. During May 2018 and again in 2019, at the Euro PCR Conference in Paris, the Reducer was showcased during a dedicated Reducer symposium.

On March 5, 2018, the Company reported the Reducer was featured in a “live case” broadcast to more than 3000 participants at the Cardiovascular Research Technologies (CRT) meeting in Washington D.C. The successful live case was performed by Dr. Giannini at Maria Cecilia Hospital in Cotignola, Italy.

On June 20, 2018, the Company announced the first U.S. patient had been implanted with the Reducer under compassionate use. On October 3, 2018, the Company reported the positive follow-up for this patient noting that the patient was able to walk several miles without any symptoms. The patient has reduced his use of nitroglycerin from 2-3 times a week to 1 or 2 times per month. A second patient received a Reducer implant under Compassionate Use on January 31, 2019 in the U.S. The most recent update from the attending physician indicated that this second patient was doing well.

On May 6, 2019, the Company announced that 1,000 patients diagnosed with refractory angina have been treated with the Reducer. The Reducer therapy now benefits from medical evidence spanning 1,000 patients and 14 years of follow up.

On September 3, 2019, the Company announced that the European Society of Cardiology included Neovasc Reducer in the European Practice Guidelines for the Diagnosis and Management of Chronic Coronary Syndromes. The Reducer entered at Class 2 B, the highest recommendation class for therapies addressing refractory angina.

On November 1, 2019, the Company announced it had advised the FDA of its decision to submit a PMA application.

Regulatory Status

The Reducer is approved for sale in Europe, having received CE Mark designation in November 2011. In preparation for product launch, Neovasc completed development of the commercial-generation Reducer and the product is currently in commercial scale manufacture.

On November 3, 2017, Neovasc received FDA approval for a U.S. IDE clinical trial, COSIRA II (a trial design similar to the COSIRA study). While the principal investigator and co-principal investigator for this study were already appointed, the Company evaluated timing for starting such a U.S. clinical trial, funding being the largest impediment. The cost of this U.S. clinical trial is expected to be approximately \$20 million. U.S. marketing approval is expected about four years after the clinical trial begins. There is no assurance that U.S. regulatory approval will be granted in the time frame anticipated by management, or granted at any time in the future.

On October 10, 2018, the Company announced that the FDA has granted “Breakthrough Device Designation” for the Reducer. The FDA grants this designation in order to expedite the development and review of a device that demonstrates compelling potential to provide a more effective treatment or diagnosis for life-threatening or irreversibly debilitating diseases.

On December 20, 2018, Neovasc filed a comprehensive Q-Sub submission to the FDA with all available Reducer Clinical evidence, requesting a Sprint FDA discussion meeting. The Neovasc team, together with two top U.S. Cardiologists, met with the FDA proposing moving forward with a PMA submission using the available Neovasc clinical evidence including the prospective, multicenter, randomized, double-blind, sham controlled study assessing the safety and efficacy of the Reducer in 104 patients in the European Union and Canada (COSIRA), a multi-center, multi-country, three-arm observational post market study (REDUCER-I), and supportive safety and efficacy data from peer-reviewed journals.

On February 20, 2019, the Company announced that the FDA had informed Neovasc that, despite “Breakthrough Device Designation”, the FDA review team recommends collection of further pre-market blinded data prior to PMA submission.

On June 26, 2019, the Company and two top U.S. Cardiologists, met with FDA to further discuss available clinical evidence for the Reducer, to try to reach agreement on potential options to enter the U.S. Market. FDA provided the Company with guidance towards potential alternate options, including the HDE pathway for class IV refractory angina patients and/or alternate clinical trial designs for a broader refractory angina patient population.

Following the last Sprint discussion held with the FDA on October 9, 2019 and weighing all available options a final decision was made by the Company to pursue a full PMA application for this Breakthrough medical device. The Company believes that the totality of clinical evidence from the COSIRA study, REDUCER-I European Post-Market study (with 221 of 400 patients enrolled), and multiple independent studies published in peer-reviewed journals, will provide reasonable assurance of safety and effectiveness to support a PMA. Neovasc plans to submit the PMA application prior to the end of 2019 with a request for an Advisory Panel meeting. While any pathway to U.S. market approval by the FDA carries considerable risk, and there can be no assurance that the PMA will be approved by the FDA in a timely manner or at all, we believe the full PMA application pathway brings the best chance of success within reasonable cost and time constraints. After evaluating the different options, we concluded that the HDE pathway would likely not be a viable option based on the definition of a Humanitarian Use Device within the FDA Guidance and that the PMA pathway would be our best option to bring Reducer to the U.S. market to treat refractory angina patients. While an additional post-market study will most likely be needed and the body of real-world evidence continues to grow, the Company believes that the clinical evidence already available will be sufficient to not further delay the availability of this Breakthrough medical device for the treatment of U.S. patients. The Company’s expectations regarding the PMA pathway bringing the best chance of success within reasonable cost and time constraints compared to the other options the Company had been considering could prove to be incorrect. In the event that the PMA is approved by the FDA, there can be no assurance that Neovasc will be successful in commencing commercialization of Reducer in the United States on a timely basis or at all, or of the total addressable market size for Reducer.

New Products/Components/Cycles

Tiara

A key strategic and focused activity for the Company in the Mitral Valve space is the development of the transfemoral, trans-septal version of the Tiara Mitral Valve, which the Company believes has the potential to lead to a breakthrough for the optimal treatment of severe Mitral Regurgitation, by providing a safe and broadly usable implantation technique. These development activities are taking place both in the Company's Vancouver, BC and New Brighton, MN facilities. Outside of the development of a unique and innovative delivery system, the Company will make several minor, but meaningful changes to the current Tiara valve, in order to enhance trans-septal delivery & deployment, as well as to further increase the suitable patient population, while maintaining the core features and functionality of the current valve in order to leverage clinical and technical performance data. We initiated the formal development of this system, based on the completed conceptual work at the end of the first quarter of 2019.

Reducer

The Reducer is a late-stage product with European CE Mark approval. The Company initiated a pilot launch of the Reducer in select European markets in 2015. The Company has also been exploring initiation of the Reducer sales in other non-US markets and has signed distribution agreements in several countries. Any sales of the product in the United States would follow obtaining U.S. regulatory approval, if such approval is granted, as described further above.

A well-known and well-established medical device contract manufacturer is manufacturing the Reducer for the Company. The majority of the components that make up the Reducer are readily available; however, two critical components of the device are not. The balloon portion of the delivery system is technically challenging to manufacture and the Reducer device, while a basic technology, must be manufactured in Israel due to restrictions on the transfer of intellectual property and manufacturing out of Israel stemming from certain research grants received by NML prior to the acquisition in July 2008.

Peripatch Technology used in our Tiara Mitral Valve

The basic Peripatch technology licensed from Boston Scientific was established over 25 years ago, when the material was used to fashion the leaflets and other components in surgical heart valves.

Neovasc sources its bovine tissue from abattoirs in New Zealand for the manufacture of Tiara devices. There is a degree of capacity constraint related to the supply of raw tissue but the risk of disruption is minimal, due to the relatively small amounts of tissue required for the current Tiara programs.

While a definitive pattern of demand has not yet been established and the effect is expected to be minimal, the cyclical nature of the meat industry could conceivably have an impact on the quality and availability of raw tissue and could potentially impact the yields and margins for the product over the course of any given year. Further information about Peripatch can be found above under the heading "Neovasc's Products".

TRENDS, RISKS AND UNCERTAINTIES

Losses and Additional Funding Requirements

Neovasc has a limited operating history, which makes it difficult to predict how its business will develop or what its future operating results will be. The Company has a history of operating losses since its inception and will need to generate significantly greater revenues than it has to date to achieve and maintain profitability. There is no certainty of future profitability, and results of operations in future periods cannot be predicted based on results of operations in past periods. The securities of the Company should be considered a highly speculative investment.

The Company has incurred losses and comprehensive losses of \$6,201,977 and \$6,555,186, and \$22,776,830 and \$22,463,857 for three and nine months ended September 30, 2019, respectively (2018: \$14,636,744 and \$14,290,417, and \$119,662,883 and \$119,895,193 for the comparative periods, respectively) and has a deficit of \$355,512,025 at September 30, 2019 compared to a deficit of \$332,735,195 as at December 31, 2018. As at September 30, 2019 the Company had \$11,396,063 in cash and cash equivalents (December 31, 2018: \$9,242,809).

The Company will need to raise additional capital to fund its short and medium-term objectives for the Tiara and the Reducer prior to the successful commercialization of these products. There is no certainty that the Company will be able to raise additional capital through debt or equity or other means on terms acceptable to the Company or at all. There is also no certainty that the programs will be successfully commercialized or any required funds will be available to the Company at the time needed or on terms acceptable to the Company. The terms of the 2017 Financings included, amongst other things, future priced securities, full ratchet anti-dilution clauses and a senior convertible debt instrument secured on substantially all of the assets of the Company. These terms may make it more difficult to obtain additional debt or equity financing in the future.

As at September 30, 2019, the Company had approximately \$11.4 million in cash and cash equivalents, sufficient cash until approximately March 2020 at the current burn rate. The Company will need to obtain additional debt or equity financing in the next six months to fund ongoing operations. Given the current nature of the Company's capital structure, the Company can give no assurance that it will be able to obtain the additional funds needed, on terms agreeable to the Company, or at all. These circumstances indicate the existence of material uncertainty and cast substantial doubt about the Company's ability to continue as a going concern. For a description of the risks relating to the Company's need for additional financing and the 2017 Notes see the Company's Annual Report on Form 20-F, which is available on SEDAR at sedar.com and as filed with the SEC at www.sec.gov.

The condensed interim consolidated financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. Should the Company be unable to obtain additional capital in the future and the Company's ability to continue as a going concern be impaired, material adjustments may be necessary to these consolidated financial statements.

Litigation Matters

The litigation matters are more fully described in "Contractual Obligations and Contingencies" below.

Operating Risks

The Company may need to raise additional capital prior to the successful commercialization of its products. There is no certainty that the Company's programs will be successfully commercialized or that any required funds will be available to the Company at the time needed or on terms acceptable to the Company.

Neovasc is subject to risks and uncertainties associated with operating in the life sciences industry and as a company engaged in significant development, regulatory, production and commercialization activity. Neovasc cannot anticipate or prevent all of the potential risks to its success, nor predict the impact of any such risk.

Operating risks include but are not limited to: the clinical success of the Tiara; market acceptance of the Company's technologies and products; litigation risk associated with the Company's intellectual property and the Company's defense and protection thereof; the Company's ability to obtain and enforce timely patent protection of its technologies and products; the Company's ability to develop, manufacture and commercialize its products cost-effectively and according to the regulatory standards of numerous governments; the competitive environment and impact of technological change and/or product obsolescence; the Company's ability to conduct and complete successful clinical trials; the Company's ability to garner regulatory approvals for its products in a timely fashion; the Company's ability to attract and retain key personnel, effectively manage growth and smoothly integrate newly acquired businesses or technologies; limitations on third-party reimbursement; instances of product or third-party liability; dependence on a single supplier for some products; animal disease or other factors affecting the quality and availability of raw materials; conflicts of interest among the Company's directors, officers, promoters and members of management; fluctuations in the values of relative foreign currencies; volatility of the Company's share price; fluctuations in quarterly financial results; unanticipated expenses; changes in business strategy; impact of any negative publicity; general political and economic conditions; and acts of god and other unforeseeable events, natural or human-caused.

Risks Relating to the 2017 Financings

The 2017 Notes contain, among other things, so-called full-ratchet anti-dilution and future pricing provisions, which create a high degree of risk relating to, among other things, significant dilution to shareholders and the Company's ability to raise additional financing. The exercise of warrants issued pursuant to the 2017 Financings (the "2017 Warrants") and conversion of 2017 Notes resulted in significant dilution to our shareholders. Future conversions of the 2017 Notes may result in further significant dilution in the future. For details concerning the terms of the 2017 Notes, see the prospectus supplement and the form of 2017 Notes filed on SEDAR at www.sedar.com and with the SEC at www.sec.gov. For a description of the risks associated with the 2017 Notes, the amount of 2017 Notes converted to date, the dilution to date and the potential dilution in the future due to such conversions, see the Company's Annual Report on Form 20-F, which is available on SEDAR at www.sedar.com and as filed with the SEC at www.sec.gov.

FOREIGN OPERATIONS

The Company changed functional currency on October 1, 2017 from Canadian to U.S. dollars.

The majority of the Company's revenues are derived from product sales in Europe, primarily denominated in U.S. dollars and Euros, while the majority of the Company's costs are denominated in Canadian and U.S. dollars. A decrease in the value of the Euro in relation to the U.S. dollar will have an adverse effect on the Company's results of operations, with lower than expected revenue amounts and gross margins being reported in the Company's U.S. dollar financial statements. In addition, any decrease in the value of the Euro occurring in between the time a sale is consummated and the time payment is received by Neovasc will lead to a foreign exchange loss being recognized on the foreign currency denominated trade account receivable. The fluctuation of foreign exchange may impose an adverse effect on the Company's results of operations and cash flows in the future. The Company does not conduct any hedging activities to mitigate these foreign exchange risks. Additionally, Neovasc may be materially and adversely affected by increases in duty rates, exchange or price controls, repatriation restrictions, or other restrictions on foreign currencies. The Company's international operations are subject to certain other risks common to international operations, including, without limitation: government regulations; import restrictions and, in certain jurisdictions, reduced protection for the Company's intellectual property rights.

Foreign currency translation gains and losses arising from normal business operations are credited to or charged to operations in the period incurred. To date, Neovasc has not entered into any foreign exchange forward contracts.

SELECTED FINANCIAL INFORMATION

The following discussion should be read in conjunction with the unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2019 and 2018.

DISCUSSION OF OPERATIONS AND FINANCIAL CONDITION

Results for the three months ended September 30, 2019 and 2018 follow:

Losses

The operating losses and comprehensive losses for the three months ended September 30, 2019 were \$6,993,032 and \$6,555,186, respectively, or \$0.83 basic and diluted loss per share, as compared with losses of \$9,650,593 and \$14,290,417 respectively, or \$7.80 basic and diluted loss per share, for the same period in 2018.

The \$7,735,231 decrease in the comprehensive loss incurred for the three months ended September 30, 2019 compared to the same period in 2018 can be substantially explained by a \$5,707,701 decrease in other losses (substantially due to a 5,759,228 decrease in the charges related to the accounting treatment of the 2017 Notes and May 2019 Financings), a \$2,657,561 decrease in operating losses (substantially due to a \$2,311,677 decrease in non-cash charges for collaboration, license and settlement agreements provision made during the third quarter of 2018, offset by a 699,536 increase in other comprehensive loss.

Revenues

Revenues increased 4% to \$500,498 for the three months ended September 30, 2019, compared to revenues of \$480,540 for the same period in 2018 as the Company continues its commercialization strategies. The limited sales growth versus same period last year is mostly due to a large purchase of inventory from our new distributor in Italy in the third quarter of 2018 that skewed the comparative period. Physician interest continues to be high, as displayed at well attended Reducer Symposia during the National Cardiology Meetings of Germany and Italy respectively in Berlin and Milano in October. The validation in September of Reducer Therapy by the ESC in its most recent Practice Guidelines, is a significant milestone, particularly for referring physicians who are considering sending a patient to an implanting center. In Germany we now have three sales representatives, and a fourth has started in November. We continue to work on our reimbursement strategies in several European countries to further streamline the processes to get approval for and payment of the ongoing implantations. The Company recognizes that future revenues may be unstable before the Reducer becomes widely adopted. The continued success of the commercialization of the Reducer will be dependent on the amount of internal resources allocated to the product, obtaining appropriate reimbursement codes in various territories and correctly managing the referrals process.

Cost of Goods Sold

The cost of goods sold for the three months ended September 30, 2019 was \$137,999 compared to \$96,743 for the same period in 2018. The overall gross margin for the three months ended September 30, 2019 was 72%, compared to 80% gross margin for the same period in 2018. During the three months ended September 30, 2019, the Company voluntarily replaced certain expired inventory of Reducers for newly sterilized product, which increased the cost of goods by \$59,800 and reduced the overall gross margin in the third quarter of 2019.

Expenses

Total expenses for the three months ended September 30, 2019 were \$7,355,531 compared to \$10,034,390 for 2018, representing a decrease of \$2,678,859 or 27%. The decrease in total expenses for the three months ended September 30, 2019 compared to 2018 can be substantially explained by a \$2,311,677 decrease in non-cash charges for on collaboration, license and settlement agreements provisions booked in 2018, an \$868,118 decrease in non-cash stock-based compensation charges and offset by a \$476,523 increase in other expenses.

Selling expenses for the three months ended September 30, 2019 were \$380,412, compared to \$202,947 for 2018, representing an increase of \$177,465 or 87%. The increase in selling expenses for the three months ended September 30, 2019 compared to 2018 reflects an increase in costs incurred for commercialization activities related to the Reducer, including hiring additional sales representatives. The Company continues to minimize its selling expenses as the cash resources of the Company are still limited.

General and administrative expenses for the three months ended September 30, 2019 were \$2,197,922, compared to \$6,340,747 for the same period in 2018, representing a decrease of \$4,142,825. The decrease in general and administrative expenses for the three months ended September 30, 2019 compared to 2018 can be substantially explained by i) a \$2,311,677 decrease in non-cash charges for collaboration, license and settlement agreements provision as liabilities for the collaboration and licensing agreement with Penn Medicine and the Gorman Cardiovascular Research Group at the University of Pennsylvania (collectively "UPenn") were accrued during the third quarter of 2018, ii) a \$1,103,844 decrease in non-cash stock based compensation charges as no incentive awards were issued in the third quarter of 2019, iii) a \$384,334 decrease other general expenses as the company continues to preserve capital where possible, iv) a \$217,340 decrease in employee termination expenses as severance provisions were accrued in the third quarter of 2018, and v) a \$91,089 decrease in litigation expenses as litigation matters came to a close.

Product development and clinical trial expenses for the three months ended September 30, 2019 were \$4,777,197 compared to \$3,490,696 for 2018, representing an increase of \$1,286,501 or 37%. The increase in product development and clinical trial expenses for the three months ended September 30, 2019 can be substantially explained by a \$208,509 increase in non-cash stock-based compensation charges, a \$236,252 increase in cash-based employee expenses as additional staff have been hired in 2019 and a \$773,856 increase in other product development and clinical trial expenses as the Company continues to incur development and clinical costs related to Tiara and regulatory costs related to Tiara and Reducer.

The Company's expenses are subject to inflation and cost increases. The Company has not seen a material increase in the price of any of the components used in the manufacture of its products and services.

Other Loss

The other income for the three months ended September 30, 2019 was \$775,550 compared to other loss of \$4,932,151 for the same period in 2018, a decrease of \$5,707,701. The decrease in the other loss can be substantially explained by a \$5,759,228 decrease in charges related to the accounting treatment of the 2017 and May 2019 Financings.

Tax Expense

The tax recovery for the three months ended September 30, 2019 was \$15,505 compared to a \$54,000 expense in 2018. Neovasc (US) Inc. was established in 2015 to provide clinical trial services to Neovasc Medical Inc. The cross border intercompany charges from Neovasc (US) Inc. to Neovasc Medical Inc. created a taxable profit in Neovasc (US) Inc. and U.S. federal and state taxes were incurred.

Results for the nine months ended September 30, 2018 and 2017 follow:

Losses

The operating losses and comprehensive losses for the nine months ended September 30, 2019 were \$20,473,591 and \$22,463,857 respectively, or \$3.72 basic and diluted loss per share, as compared with losses of \$22,157,097 and \$119,895,193 respectively, or \$105.90 basic and diluted loss per share, for the same period in 2018.

The \$97,431,336 decrease in the comprehensive loss incurred for the nine months ended September 30, 2019 compared to the same period in 2018 can be substantially explained by a \$95,494,261 decrease in the charges related to the accounting treatment of the 2017 and May 2019 Financings and a decrease in operating loss of \$1,683,506.

Revenues

Revenues increased 25% to \$1,526,211 for the nine months ended September 30, 2019, compared to revenues of \$1,225,709 for the same period in 2018. The company sees continued physician interest and solid scientific credibility for Reducer therapy as evidenced by its validation by the ECS in its recent practice guidelines. We have led in Germany, together with our local partners, various therapy development sessions to stimulate patient flow from general cardiologists to Reducer implanting centers. Germany has been a driver in our gross margin and top line growth. The Company is encouraged by the progress this year, but recognizes that future revenues may be unstable before the Reducer becomes widely adopted. The continued success of the commercialization of the Reducer will be dependent on the amount of internal resources allocated to the product, obtaining appropriate reimbursement codes in various territories and correctly managing the referrals process.

Cost of Goods Sold

The cost of goods sold for the nine months ended September 30, 2019 was \$348,987 compared to \$272,739 for the same period in 2018. The overall gross margin for the nine months ended September 30, 2019 was 77%, compared to 78% gross margin for the same period in 2018. The Company continues to focus on Germany where the Company sells the Reducer direct for higher margins. While the sales mix between direct and distributor-based sales continues to move towards direct sales resulting in higher margins during the three months ended September 20, 2019, the Company voluntarily replaced certain expired inventory of Reducers for newly sterilized product, which reduced the gross margin in the third quarter of 2019 by \$59,800.

Expenses

Total expenses for the nine months ended September 30, 2019 were \$21,650,815, compared to \$23,110,067 for the same period in 2018, representing a decrease of \$1,459,252 or 6%. The decrease in total expenses for the nine months ended September 30, 2019 compared to the same period in 2018 reflects a \$2,100,495 decrease in non-cash charges for accretion on collaboration, license and settlement agreements provision, a \$793,704 decrease in employee termination expenses accrued in first and third quarters of 2018 and a \$192,437 decrease in litigation expenses as litigation matters came to a close offset by a \$739,871 increase in non-cash stock-based compensation charges.

Selling expenses for the nine months ended September 30, 2019 were \$1,143,157, compared to \$738,423 for the same period in 2018, representing an increase of \$404,734 or 55%. The increase in selling expenses for the nine months ended September 30, 2019 compared to the same period in 2018 reflects an increase in costs incurred for commercialization activities related to the Reducer as we add more sales representatives in Germany and increase our commercialization efforts. The investments in Germany are carefully focused on increasing our coverage in the most active Reducer centers and targeting experienced therapy development reps around the top implanting centers. The new German structure will be established to drive our growth into 2020.

General and administrative expenses for the nine months ended September 30, 2019 were \$7,342,314, compared to \$11,023,302 for the same period in 2018, representing a decrease of \$3,680,988 or 33%. The decrease in general and administrative expenses for the nine months ended September 30, 2019 compared to the same period in 2018 can be substantially explained by i) a \$2,100,495 decrease in non-cash charges for accretion on collaboration, license and settlement agreements provisions as the liabilities for the collaboration and licensing agreement with U Penn were accrued during the third quarter of 2018, ii) a \$793,704 decrease in employee termination expenses as severance provisions were accrued in the first and third quarters of 2018, iii) a \$211,968 decrease in non-cash stock-based compensation charges as fewer incentive awards were issued in 2019 and iv) a \$192,437 decrease in litigation expenses as litigation matters have come to a close. The Company continues to minimize its general and administrative expenses when possible as the cash resources of the Company are still limited.

Product development and clinical trial expenses for the nine months ended September 30, 2019 were \$13,165,344 compared to \$11,348,342 for the same period in 2018, representing an increase of \$1,817,002 or 16%. The increase in product development and clinical trial expenses for the nine months ended September 30, 2019 was the result of a \$856,275 increase in non-cash stock-based compensation charges, and a \$441,073 increase in other product development and clinical trial expenses as the Company continues to incur development and clinical costs related to Tiara and regulatory costs related to Tiara and Reducer and a \$210,615 increase in non-cash depreciation charges.

The Company's expenses are subject to inflation and cost increases. The Company has not seen a material increase in the price of any of the components used in the manufacture of its products and services.

Other Loss

The other loss for the nine months ended September 30, 2019 was \$2,316,134 compared to loss of \$97,327,732 for the same period in 2018, a decrease in other loss of \$95,011,598. The decrease in the other loss can be substantially explained by a \$95,494,261 decrease in charges related to the accounting treatment of the 2017 and May 2019 Financings.

Tax Expense

The tax recovery for the nine months ended September 30, 2019 was \$12,895, compared to a \$178,054 expense for the same period in 2018. Neovasc (US) Inc. was established in 2015 to provide clinical trial services to Neovasc Medical Inc. The cross border intercompany charges from Neovasc (US) Inc. to Neovasc Medical Inc. created a taxable profit in Neovasc (US) Inc. and U.S. federal and state taxes were charged.

QUARTERLY INFORMATION

The following is a summary of selected unaudited financial information for the eight fiscal quarters to September 30, 2019:

	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018
REVENUE				
Reducer	\$ 500,498	\$ 439,920	\$ 585,793	\$ 523,424
	500,498	439,920	585,793	523,424
COST OF GOODS SOLD	137,999	66,994	143,994	93,519
GROSS PROFIT	362,499	372,926	441,799	429,905
EXPENSES				
Selling expenses	380,412	394,512	368,233	614,742
General and administrative expenses	2,197,922	2,463,461	2,680,931	5,415,634
Product development and clinical trials expenses	4,777,197	4,148,184	4,239,963	4,712,516
	7,355,531	7,006,157	7,289,127	10,742,892
OPERATING LOSS	(6,993,032)	(6,633,231)	(6,847,328)	(10,312,986)
Other Income/(expense)	775,550	(1,287,267)	(1,804,417)	21,862,040
Tax expense	15,505	(38,980)	36,370	70,961
INCOME/(LOSS) FOR THE PERIOD	\$ (6,201,977)	\$ (7,959,478)	\$ (8,651,745)	\$ 11,620,015
BASIC (LOSS)/GAIN PER SHARE	\$ (0.83)	\$ (1.17)	\$ (2.10)	\$ 5.10
	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017
REVENUE				
Reducer	\$ 480,540	\$ 405,247	\$ 339,922	\$ 285,598
Contract manufacturing	-	-	-	465,205
Consulting services	-	-	-	476,822
	480,540	405,247	339,922	1,227,625
COST OF GOODS SOLD	96,743	88,603	87,393	1,136,804
GROSS PROFIT	383,797	316,644	252,529	90,821
EXPENSES				
Selling expenses	202,947	248,538	286,938	220,885
General and administrative expenses	6,340,747	2,213,464	2,469,091	8,318,549
Product development and clinical trials expenses	3,490,696	3,858,255	3,999,391	3,762,148
	10,034,390	6,320,257	6,755,420	12,301,582
OPERATING LOSS	(9,650,593)	(6,003,613)	(6,502,891)	(12,210,761)
Other income/(expense)	(4,932,151)	(43,071,578)	(49,324,003)	7,209,897
Tax expense	(54,000)	(70,400)	(53,654)	(25,602)
LOSS FOR THE PERIOD	\$ (14,636,744)	\$ (49,145,591)	\$ (55,880,548)	\$ (5,026,466)
BASIC LOSS PER SHARE	\$ (7.80)	\$ (36.59)	\$ (385.90)	\$ (61.70)

Selling expenses are expected to generally increase as the Company continues its focused commercialization of the Reducer in select countries in Europe. General and administrative expenses reached peaks in the third quarter of 2018 due to the accrual of future collaboration and license fees and in the fourth quarter of 2017 due to expenses related to issuing the 2017 Notes. While we aim to increase product development and clinical trial activities quarter over quarter, with quarterly fluctuations depending on the activities conducted in that quarter to develop the Tiara and the Reducer, the Company has been resource-constrained since the litigation loss in the second quarter of 2016 as we have been forced to defer or cancel certain otherwise desirable projects we would like to have undertaken.

USE OF PROCEEDS

	PROPOSED USE OF NET PROCEEDS		ACTUAL USE OF NET PROCEEDS	
	2019 FINANCINGS		Use of Proceeds	Remaining to be Spent
Continuing operations	\$19,601,526	\$8,205,463	\$11,396,063	
NET PROCEEDS	\$19,601,526	\$8,205,463	\$11,396,063	

In February and March of 2019, the Company completed two \$5 million underwritten public offerings issuing 2,222,222 Common Shares and 144,444 Broker Warrants for net proceeds of approximately \$8.1 million dollars.

In May of 2019, the Company completed a private placement of (i) the 2019 Notes with a face value of \$11.5 million, for gross proceeds to the Company of \$9.78 million and (ii) 334,951 Common Shares of the Company at a price of \$5.15 per Common Share, for gross proceeds to the Company of \$1.72 million.

The Company has cash on hand of \$11.4 million as at September 30, 2019 and has partially used the proceeds from the 2019 Financings for continuing operations.

DISCUSSION OF LIQUIDITY AND CAPITAL RESOURCES

Results for the nine months ended September 30, 2019 and 2018 follow:

Neovasc finances its operations and capital expenditures with cash generated from operations and through equity and debt financings. As at September 30, 2019 the Company had cash and cash equivalents of \$11,396,063 compared to cash and cash equivalents of \$9,242,809 as at December 31, 2018. The Company will require significant additional financing in order to continue to operate its business. Given the current nature of the Company's capital structure, there can be no assurance that such financing will be available on favorable terms, or at all.

The Company is in a negative working capital position of \$1,455,733, with current assets of \$12,982,569 and current liabilities of \$14,438,302. The Company will require additional working capital in order to continue to operate its business and there can be no assurance that such additional working capital will be available on favorable terms, or at all.

Net cash applied to operating activities for the nine months ended September 30, 2019 was \$18,089,177, compared to \$16,822,109, for the same period in 2018. For the nine months ended September 30, 2019, cash operating expenses were \$17,093,583, compared to \$17,729,515 for the same period in 2018, a decrease of \$635,932 as the Company continues to manage its cash flows while still advancing the commercialization and development of its products. Net cash outflow from the net change in non-cash working capital items for the nine months ended September 30, 2019 was \$1,185,872, compared to net cash inflow of \$938,010 in the same period in 2018, a \$2,123,882 increase due to the payment of \$2,150,000 collaboration and licensing expenses.

Net cash applied to investing activities for the nine months ended September 30, 2019 was \$176,941 compared to net cash received from investing activities of \$715,848 for the same period in 2018, primarily due to the \$865,610 cash inflow from the sale of a manufacturing building in 2018.

During the nine months ended September 30, 2019, the Company received net proceeds of \$19,601,526 from the 2019 Financings and \$1,200,400 from the exercise of 2017 Warrants, compared to \$13,086,587 proceeds from the exercise of 2017 Warrants in 2018.

The majority of the revenue and expenses of the Company are incurred in the parent and in two of its subsidiaries, NMI, which is located in Canada, and Neovasc (US) Inc. which is located in the United States. There were no significant restrictions on the transfer of funds between these entities during the periods ended September 30, 2019 and 2018 and the Company had no complications in transferring funds to and from its subsidiaries in Israel and the United States.

The Company is exposed to foreign currency fluctuations on \$2,279,720 of its cash and cash equivalents and restricted cash held in Canadian dollars and Euros.

2017 Financings

In November 2017, Neovasc completed two financing transactions, the 2017 Public Transaction and the 2017 Private Placement, for aggregate gross proceeds of approximately \$65 million. The Company used the net proceeds of the 2017 Financings to fully fund the approximately \$42 million balance of the damages and interest awards in the case of *CardiAQ v. Neovasc Inc.* (after subtracting the approximately \$70 million that the Company had paid into escrow), with remaining

funds being used (i) to partially fund the ongoing Tiara clinical program; (ii) to support the completion of the TIARA-II study; and (iii) for general corporate purposes.

On November 17, 2017, the Company completed the underwritten 2017 Public Transaction of 6,609,588 Series A units (the "Series A Units") of Neovasc and 19,066,780 Series B units (the "Series B Units" and together with the Series A Units, the "Units") of Neovasc, at a price of \$1.46 per Unit for gross proceeds of approximately \$37.487 million, before deducting the underwriting discounts and commissions and other estimated offering expenses payable by Neovasc. The price of \$1.46 per Unit represents the market price (as defined in the TSX Company Manual) of Neovasc's common shares as of the date of announcement of the 2017 Financings.

Each Series A Unit was comprised of (i) one common share of the Company (each, a "Unit Share"), (ii) one Series A common share purchase warrant of the Company (each, a "Series A Warrant"), (iii) one Series B common share purchase warrant of the Company (each, a "Series B Warrant") and (iv) 0.40 Series C unit purchase warrant (each a "Series C Warrant") to purchase a unit (each, a "Series C Unit") comprised of one Common Share, one Series A Warrant and one Series B Warrant.

Each Series B Unit was comprised of (i) either one Unit Share or one pre-funded Series D common share purchase warrant of the Company (each, a "Series D Warrant"), (ii) one Series A Warrant, (iii) one Series B Warrant, (iv) 0.40 Series C Warrant, and (v) 1.1765 Series F common share purchase warrant of the Company (each, a "Series F Warrant"). The Series A Units and Series B Units separated into their component parts upon distribution.

Each Series A Warrant entitled the holder to purchase 0.001 Common Share (each, a "Series A Warrant Share") at an exercise price of \$1,610 per Series A Warrant Share at any time prior to 11:59 p.m. (New York time) on November 17, 2022. Each Series B Warrant entitled the holder to purchase 0.001 Common Share (each, a "Series B Warrant Share") at an exercise price of \$1,610 per Series B Warrant Share at any time prior to 11:59 p.m. (New York time) on November 17, 2019. Each Series C Warrant entitled the holder to purchase a Series C Unit comprised of a Common Share (each a "Series C Unit Share"), a Series A Warrant and a Series B Warrant, at an exercise price of \$1,460 per Series C Unit at any time prior to 11:59 p.m. (New York time) on November 17, 2019. Each Series D Warrant entitled the holder to purchase 0.001 Common Share (each, a "Series D Warrant Share") at an exercise price of \$1,460 per Series D Warrant Share, all of which were pre-funded except for a nominal exercise price of \$0.01 per Series D Warrant Share at any time prior to 11:59 p.m. (New York time) on November 17, 2022. Each Series F Warrant entitled the holder to purchase 0.001 Common Share (each, a "Series F Warrant Share" and together with the Series A Warrant Shares, Series B Warrant Shares, Series C Unit Shares, and Series D Warrant Shares, the "2017 Warrant Shares") at an exercise price of \$1,610 per Series F Warrant Share at any time prior to 11:59 p.m. (New York time) on November 17, 2019.

Concurrent with the 2017 Public Transaction, the Company completed the 2017 Private Placement for the sale of \$32,750,000 aggregate principal amount of the 2017 Notes of the Company and Series E common share purchase warrants of the Company (the "Series E Warrants") to purchase one Common Share at a price of \$1,610 per Series E Warrant. As a result of the February 2019 Financing, the exercise prices of the 2017 Notes were adjusted to \$4.50 and as a result of the June 2019 Common Share consolidation, the conversion price of the 2017 Notes reset to \$3.95. The 2017 Notes were issued with an original issue price of \$850 per \$1,000 principal amount of note. The 2017 Notes initially carried an 18-month term and carry an interest rate of 0.0% per annum (increasing to 15% upon an event of default) from November 17, 2018. The maturity date of the 2017 Notes was extended to May 17, 2020, pursuant to certain waiver agreements between the Company and the holders of the 2017 Notes, along with certain other amendments. The form of waiver agreement is available on the Company's profiles on SEDAR at www.sedar.com and with the SEC at www.sec.gov. Interest on the 2017 Notes will commence accruing on November 17, 2018, will be computed on the basis of a 360-day year and twelve 30-day months and will be payable in cash on January 1, 2018 and on the first day of each calendar quarter thereafter up to, and including, the maturity date. The Series E Warrants had the same terms and conditions as the Series A Warrants.

The 2017 Notes are secured by a first priority security interest on all of Neovasc's assets. The 2017 Notes and Series E Warrants are subject to adjustment, at any time prior to their expiry. The 2017 Notes contain, among other things, provisions relating to future-priced conversion or exercise formula and full-ratchet anti-dilution.

As of September 30, 2019, all of the 2017 Warrants have been either exercised or exchanged, such that no such 2017 Warrants remain outstanding.

For a description of the terms of the securities issued pursuant to the 2017 Financings, see the prospectus supplement and the forms of such securities filed on SEDAR at www.sedar.com and with the SEC at www.sec.gov. For a description of the risks associated with these securities, the amount of such securities exercised to date, the dilution to date and potential dilution in the future due to conversions, see “Risk Factors” and “Share Capital” of the Company's Annual Report on Form 20-F, which is available on SEDAR at www.sedar.com and as file with the SEC at www.sec.gov.

Conversions of 2017 Notes and Exercises of 2017 Warrants

The Series A Warrants, Series B Warrants, Series C Warrants, Series E Warrants and Series F Warrants were each subject to a hold period that restricted each 2017 Warrant from being exercised until January 17, 2018. As of September 30, 2019, all of the 25,676,368 Series B Warrants initially granted and 10,273,972 Series B Warrants issued upon exercise of Series C Warrants have been exercised and all of the 22,431,506 Series F Warrants initially granted have been exercised in each case using the cashless alternate net number mechanism for 1,834,355 Common Shares. As of September 30, 2019, all of the 10,273,972 Series C Warrants initially granted have been exercised, for proceeds to the Company of \$14,999,999. Such exercises of Series C Warrants resulted in the issuance of 10,274 Common Shares and the issuance of an additional 10,273,972 Series A Warrants.

On March 12, 2019, the Company announced that it had entered into exchange agreements with the holders of all of its outstanding Series A Warrants and Series E Warrants, pursuant to which the Company issued an aggregate of approximately 496,236 Common Shares for the surrender and cancellation of all of the Series A Warrants and Series E Warrants outstanding, on the basis of 0.0085 of a Common Share for each Series A Warrant or Series E Warrant (the “Exchange”).

As of September 30, 2019, all of the 2017 Warrants have been either exercised or exchanged, such that no 2017 Warrants remain outstanding.

As of September 30, 2019, of the \$32,750,000 aggregate principle amount of 2017 Notes initially issued, \$25,876,000 aggregate principle amount has been converted using the alternate conversion price mechanism, resulting in the issuance of 3,091,763 Common Shares, and \$6,874,000 aggregate principle amount remains outstanding. As a result of the February 2019 Financing, the conversion price of the 2017 Notes reset, as of that time, to \$4.50 and as a result of the June 2019 Common Share consolidation, the conversion price of the 2017 Notes reset to \$3.95.

For a description of the risks associated with the securities issued pursuant to the 2017 Financings, see the prospectus supplement and the forms of such securities filed on SEDAR at www.sedar.com and with the SEC at www.sec.gov. For a description of the risks associated with these securities, the amount of such securities exercised or converted to date, the dilution to date and the potential dilution in the future due to such exercises or conversions, see the Company's Annual Report on Form 20-F, which is available on SEDAR at www.sedar.com and as file with the SEC at www.sec.gov.

SUBSEQUENT EVENTS

On November 7, 2019, the Company announced that it has appointed Bill Little, former Global Head of Customer and New Market Insights at Abbott/St Jude as Chief Operating Officer of Neovasc.

OUTSTANDING SHARE DATA

As of November 5, 2019, subsequent to the effect of the share consolidations, the Company had 7,647,823 Common Shares issued and outstanding. The following securities are convertible into Common Shares: 1,052,767 stock options with a weighted average exercise price of \$20.92, 144,444 Broker Warrants with an exercise price of \$5.625, \$11,500,000 principal amount of 2019 Notes which could convert into 1,533,333 common shares and \$6,874,000 principal amount of 2017 Notes which could convert into 1,740,253 Common Shares (not taking into account the alternate conversion price or anti-dilution mechanisms). Our fully diluted share capital as of the same date is 12,118,620. Our fully diluted share capital, adjusted on the assumption that all of the outstanding 2017 Notes are converted using the alternate conversion price at the closing price on November 5, 2019, is 12,561,109.

CONTRACTUAL OBLIGATIONS AND CONTINGENCIES

Contingencies

Litigation

Litigation resulting from third-party claims has been, and may be, costly and time-consuming and could divert the attention of management and key personnel from our business operations. Although we intend to vigorously defend ourselves against any future claims that may occur, we cannot assure that we will succeed in appealing and defending any of these claims and that judgments will not be upheld against us. If we are unsuccessful in our appeal and defense of these claims or unable to settle the claims in a manner satisfactory to us, we may be faced with significant loss of intellectual property rights that could have a material adverse effect on the Company and its financial condition.

Claims by CardiAQ in Germany

On June 23, 2014, CardiAQ filed a complaint against Neovasc in Munich, Germany (the “German Court”) requesting that Neovasc assign its right to one of its European patent applications to CardiAQ. After a hearing held on December 14, 2016, the German Court rendered its decision on June 16, 2017, granting co-ownership of the European patent application to CardiAQ but denying their claim for full entitlement. On July 14, 2017, Neovasc filed a notice of appeal against the German Court’s decision with the Appeals Court of Munich. On July 20, 2017, CardiAQ filed a notice of appeal with the same court. The decision of the Appeals Court of Munich was rendered on March 21, 2019, wherein it amended the decision of the German Court and dismissed the complaint of CardiAQ in full. There are no monetary awards associated with these matters and no damages award was recognized.

Claims by CardiAQ in the United States

On March 24, 2017, CardiAQ filed a related lawsuit in the U.S. District Court for the District of Massachusetts (the “Court”), asserting two claims for correction of patent inventorship as to Neovasc’s U.S. Patents Nos. 9,241,790 and 9,248,014. On October 4, 2017, CardiAQ amended its pleading to add a third claim for correction of patent inventorship as to Neovasc’s U.S. Patent No. 9,770,329. The lawsuit did not seek money damages and would not have prevented the Company from practicing these patents. The Company moved to dismiss the complaint on November 16, 2017, and the Court denied this motion on September 28, 2018. On April 17, 2019, the Company resolved the three claims for correction of patent inventorship and, without reaching conclusion on the merits of the claims, the parties agreed to the correction of patent inventorship and added co-inventors to the three patents in question. Each party will bear its own costs. There were no monetary awards associated with these matters and no damages award was recognized.

Other Matters

By way of Amended Statement of Claim in Federal Court of Canada Action T-1831-16 (the “Action”), Neovasc Inc. and Neovasc Tiara Inc. (the “Neovasc Defendants”) were added as defendants to an existing action commenced by Edwards Lifesciences PVT, Inc. and Edwards Lifesciences (Canada) Inc. (collectively the “Edwards Plaintiffs”) against Livanova Canada Corp., Livanova PLC, Boston Scientific and Boston Scientific Ltd. (collectively, the “BSC/Livanova Defendants”). The Action was first filed in October 2016 and first concerned an allegation by the Edwards Plaintiffs that the manufacturing, assembly, use, sale and export of the Lotus Aortic Valve devices by the BSC/Livanova Defendants infringes on the Edwards Plaintiffs’ patents. In February 2017, the Neovasc Defendants were added to the Edwards Plaintiffs’ claim making related allegations. On January 22, 2019, the Company announced that pursuant to a settlement reached with the Edwards Plaintiffs, the patent infringement action that the Edwards Plaintiffs had previously commenced in the Federal Court of Canada against the Neovasc Defendants, Boston Scientific and Livanova, has been dismissed on a no-costs basis. No damages award was recognized.

On August 3, 2018, the Company announced that it had entered into a collaboration and licensing agreement with UPenn which resolved certain potential claims against the Company that had been previously disclosed. The collaboration and licensing agreement with UPenn contemplates certain fees being paid by Neovasc to UPenn, including fees in installments totaling \$2.65 million over the four years following the agreement’s execution. In addition, Neovasc agreed to pay UPenn a royalty of 1.0-1.5% on the annual net sales of the Tiara following the first commercial sale of the Tiara. Also contained in the collaboration and licensing agreement are buy-out clauses that allow Neovasc, or an acquirer of Neovasc or the Tiara

assets, to buy out these royalty obligations. As part of the collaboration and licensing agreement, certain potential claims against the Neovasc Defendants were resolved.

When the Company assesses that it is more likely that a present obligation exists at the end of the reporting period and that the possibility of an outflow of economic resources embodying economic benefits is probable, a provision is recognized and contingent liability disclosure is required. The Company has accrued \$870,786 as at September 30, 2019 representing the discounted value of future payments anticipated under the settlement agreement with UPenn. The Company has not accrued for any future royalty payments in the settlement agreement with UPenn as the amounts are undeterminable at this time.

On September 7, 2018, Endovalve Inc. and Micro Interventional Devices, Inc. (collectively, "Endovalve") filed a complaint in the United States District Court for the District of New Jersey against the Neovasc Defendants, alleging claims for trade secret misappropriation, breach of contract, and unfair competition. Endovalve alleged that it was a former customer of Neovasc Inc., and that the Neovasc Defendants improperly used trade secrets in the development of Tiara. The complaint sought injunctive relief, money damages, and attorneys' fees. On February 20, 2019, the Company announced that it had entered into a settlement agreement with Endovalve. The settlement agreement with Endovalve contemplates certain fees being paid by Neovasc to Endovalve, including settlement fees in installments totaling \$3 million over the two and a half years following the agreement's execution. In addition, Neovasc agreed to pay Endovalve a royalty of 1.3% on the annual net sales of the Tiara following the first commercial sale of the Tiara. Also contained in the settlement agreement are buy-out clauses that allow Neovasc, or an acquirer of Neovasc or the Tiara assets, to buy out these royalty obligations. As part of the settlement agreement, the claims against the Neovasc Defendants were dismissed with prejudice.

When the Company assesses that it is more likely that a present obligation exists at the end of the reporting period and that the possibility of an outflow of economic resources embodying economic benefits is probable, a provision is recognized and contingent liability disclosure is required. The Company has accrued \$1,388,268 as at September 30, 2019 representing the discounted value of future payments anticipated under the settlement agreement with Endovalve. The Company has not accrued for any future royalty payments in the settlement agreement with Endovalve as the amounts are undeterminable at this time.

OFF BALANCE SHEET ARRANGEMENTS

The Company has no off-balance sheet arrangements.

RELATED PARTY TRANSACTIONS

There were no ongoing contractual commitments and transactions with related parties during the three and nine months ended September 30, 2019 and 2018, other than those as described elsewhere herein and those compensation-based payments disclosed in Note 21 of the condensed interim consolidated financial statements for the three and nine months ended September 30, 2019 and 2018.

RISK FACTORS

A comprehensive list of the risks and uncertainties affecting us can be found in our most recent Annual Report on Form 20-F, which is available on SEDAR at www.sedar.com and as filed with the SEC at www.sec.gov. Investors are urged to consult and carefully consider these risk factors as an investment in the securities of the Company should be considered a highly speculative investment.

CRITICAL ACCOUNTING ESTIMATES AND MANAGEMENT JUDGMENT

The preparation of consolidated financial statements in conformity with IFRS requires management to make estimates and judgments that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Significant areas requiring the use of estimates and judgement relate to:

Inventories

The Company estimates the net realizable values of inventories, taking into account the most reliable evidence available at each reporting date. The future realization of these inventories may be affected by future technology or other market-driven changes that may reduce future selling prices.

Allowance for doubtful accounts receivable

The Company has established and applied a provision matrix to the trade accounts receivables balances in order to calculate an allowance for doubtful accounts on adoption of IFRS 9. Actual collectability of customer balances can vary from the Company's estimation.

Impairment of long-lived assets

In assessing impairment, the Company estimates the recoverable amount of each asset or cash generating unit based on expected future cash flows and uses an interest rate to discount them. Estimation uncertainty relates to assumptions about future operating results and the determination of a suitable discount rate.

Useful lives of depreciable assets

The Company reviews its estimate of the useful lives of depreciable assets at each reporting date, based on the expected utilization of the assets.

Share-based payment

The Company measures the cost of equity-settled transactions by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share option, risk free interest rate, volatility and forfeiture rates and making assumptions about them.

Determination of functional currency

The Company determines its functional currency as the United States dollar based on the primary economic environment in which it operates. IAS 21 The Effects of Changes in Foreign Exchange Rates outlines a number of factors to apply in determining the functional currency, which is subject to significant judgment by management. Management uses a number of factors to determine the primary economic environment in which the Company operates; it is normally the one in which it primarily generates and expends cash.

Deferred tax assets

Deferred tax assets are recognized in respect of tax losses and other temporary differences to the extent probable that there will be taxable income available against which the losses can be utilized. Judgment is required to determine the amount of deferred tax assets that can be recognized based on estimates of future taxable income.

Contingent Liabilities

Contingent liabilities are assessed continually to determine whether an outflow of resources embodying economic benefits has become probable. If it becomes probable that an outflow of future economic benefits will be required for an item

previously dealt with as a contingent liability, a provision is recognized in the consolidated financial statements of the year in which the change in probability occurs.

Accounting for financing and determination of fair value of derivative liabilities

The determination of the accounting treatment for the financing transaction completed in November 2017 is an area of significant management judgment. In particular, this involved the determination of whether the warrants issued and the conversion feature associated with the convertible note should be classified as equity or as derivative liabilities. The difference between the transaction amount and the fair value of the instruments issued in connection with the financing gives rise to a loss which has been deferred as the fair values were not determined using only observable market inputs. The manner in which the deferred loss will be recognized within income involves management judgment.

The Company's warrants and notes will be measured at fair value through profit and loss at each period end. The calculations of the fair value of these instruments involves the use of a number of estimates and a complex binomial option pricing valuation model. The carrying amounts of these liabilities may change significantly as a result of changes to these estimates. Details of the estimates used as at September 30, 2019 are disclosed in Note 15 to the Company's condensed interim consolidated financial statements for the nine months ended September 30, 2019 and 2018.

Right of use asset and lease liability

At the commencement date, the Company measures the lease liability at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available. If the interest rate implicit in the lease is not readily available, the Company discounts using the Company's incremental borrowing rate. The Company measures the right-of-use assets at an amount equal to the lease liability adjusted for any prepaid or accrued lease payments that existed at the date of transition.

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

During the nine months ended September 30, 2019, there have been no changes in accounting policies, except as disclosed herein. The Company has adopted IFRS 16 and IFRIC 23 during the nine months ended September 30, 2019.

Accounting standard issued and effective January 1, 2019

IFRS 16 - Leases

IFRS 16 'Leases' replaces IAS 17 'Leases' along with three Interpretations (IFRIC 4 'Determining whether an Arrangement contains a Lease', SIC 15 'Operating Leases-Incentives' and SIC 27 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'). The new Standard has been applied using the modified retrospective approach, with the cumulative effect of adopting IFRS 16 being recognized in equity as an adjustment to the opening balance of retained earnings for the current period. Prior periods have not been restated.

For contracts in place at the date of initial application, the Company has elected to apply the definition of a lease from IAS 17 and IFRIC 4 and has not applied IFRS 16 to arrangements that were previously not identified as lease under IAS 17 and IFRIC 4.

The Company has elected to include initial direct costs in the measurement of the right-of-use asset for operating leases in existence at the date of initial application of IFRS 16, being January 1, 2019. At this date, the Company has also elected to measure the right-of-use assets at an amount equal to the lease liability adjusted for any prepaid or accrued lease payments that existed at the date of transition.

The Company performed an impairment review on the right-of-use assets at the date of initial application.

On transition, for leases previously accounted for as operating leases with a remaining lease term of less than 12 months and for leases of low-value assets the Company has applied the optional exemptions to not recognize right-of-use assets but to account for the lease expense on a straight-line basis over the remaining lease term.

On transition to IFRS 16 the weighted average incremental borrowing rate applied to lease liabilities recognized under IFRS 16 was 10%.

The Company has benefited from the use of hindsight for determining the lease term when considering options to extend and terminate leases.

The following is a reconciliation of total operating lease commitments at December 31, 2018 to the lease liabilities recognized at January 1, 2019:

Total operating lease commitments disclosed at December 31, 2018	\$ 1,431,188
Recognition exemptions:	
Leases of low value assets	-
Leases with remaining lease term of less than 12 months	-
Variable lease payments not recognized	-
Operating lease liabilities before discounting	1,431,188
Discounted using incremental borrowing rate	(174,323)
Operating lease liabilities	1,256,865
Total lease liabilities recognized under IFRS 16 at January 1, 2019	\$ 1,256,865

For any new contracts entered into on or after January 1, 2019, the Company considers whether a contract is, or contains a lease. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration'. To apply this definition the Company assesses whether the contract meets three key evaluations which are whether:

- the contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Company
- the Company has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract
- the Company has the right to direct the use of the identified asset throughout the period of use. The Company assess whether it has the right to direct 'how and for what purpose' the asset is used throughout the period of use.

Measurement and recognition of leases as a lessee

At the lease commencement date, the Company recognizes a right-of-use asset and a lease liability on the balance sheet.

The Company depreciates the right-of-use assets on a straight-line basis from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The Company also assesses the right-of-use asset for impairment when such indicators exist.

At the commencement date, the Company measures the lease liability at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available. If the interest rate implicit in the lease is not readily available, the Company discounts using the Company's incremental borrowing rate.

Lease payments included in the measurement of the lease liability are made up of fixed payments (including in-substance fixed), variable payments based on an index or rate, amounts expected to be payable under a residual value guarantee and payments arising from options reasonably certain to be exercised.

Subsequent to initial measurement, the liability will be reduced for payments made and increased for interest. It is remeasured to reflect any reassessment or modification, or if there are changes in in-substance fixed payments. When the

lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use asset, or profit and loss if the right-of-use asset is already reduced to zero.

The Company has elected to account for short-term leases and leases of low-value assets using the practical expedients. Instead of recognizing a right-of-use asset and lease liability, the payments in relation to these are recognized as an expense in profit or loss on a straight-line basis over the lease term.

On the statement of financial position, right-of-use assets have been included under non-current assets and lease liabilities have been included under current and non-current liabilities.

IFRIC 23 – Uncertainty over Income Tax Treatments

In June 2017, the IASB issued IFRIC 23, Uncertainty over Income Tax Treatments. This interpretation specifies that if an entity concludes it is probable that the taxation authority will accept an uncertain tax treatment, it shall determine the tax result consistently with the tax treatment used or planned to be used in its income tax filing. If it is not probable, the entity shall reflect the effect of uncertainty for each uncertain tax treatment by using either of the following methods, depending on which one the entity expects to better predict the resolution of the uncertainty:

- Most likely amount: single most likely amount in a range of possible outcomes;
- Expected value: sum of the probability-weighted amounts in a range of possible outcomes.

The adoption of IFRIC 23 on January 1, 2019 has not had a significant impact on these condensed interim consolidated financial statements.

FINANCIAL INSTRUMENTS

The Company's financial instruments include its cash and cash equivalents, restricted cash, accounts receivable and accounts payable, derivative warrant liability from financing, convertible notes, and accrued liabilities.

a) Fair value estimation

The fair value hierarchy establishes three levels to classify fair value measurements based upon the observability of significant inputs used in the valuation techniques. The three levels of the fair value hierarchy are described below:

Level 1 | Quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 | Inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices)

Level 3 | Inputs for the assets or liability that are not based on observable market data (that is, unobservable inputs)

The following table sets forth the Company's financial assets and liabilities measured at fair value on a recurring basis by level within the fair value hierarchy as at September 30, 2019 and December 31, 2018. As required by IFRS 13, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

As at December 31, 2018:

	Level 1	Level 2	Level 3	Total
Financial liabilities at fair value through profit and loss				
2017 Convertible Notes	\$ -	\$ -	\$ 14,617,336	\$ 14,617,336
Derivative warrant financial liability from financing	\$ -	\$ -	\$ 190,303	\$ 190,303

As at September 30, 2019:

Level 1	Level 2	Level 3	Total
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Financial liabilities at fair value through profit and loss

2017 Convertible Notes	\$	-	\$	-	\$ 8,072,974	\$ 8,072,974
2019 Convertible Notes	\$	-	\$	-	\$ 9,055,688	\$ 9,055,688

The carrying amounts of financial assets and financial liabilities in each category are as follows:

	Note	September 30, 2019	December 31, 2018
Amortized cost			
Cash and cash equivalents	6	\$ 11,396,063	\$ 9,242,809
Accounts receivable	7	541,237	647,143
Restricted cash	10	453,052	439,736
		\$ 12,390,352	\$ 10,329,688
Other financial liabilities at amortized cost			
Accounts payable and accrued liabilities (current)	13	\$ 5,059,776	\$ 4,610,560
Accounts payable and accrued liabilities (non-current)	13	1,214,924	2,241,979
Financial liabilities at fair value through profit and loss			
2017 Convertible Notes (current)	15	8,072,974	1,423,224
2019 Convertible Notes (current)	15	876,722	-
2017 Convertible Notes (non-current)	15	-	13,194,112
2019 Convertible Notes (non-current)	15	8,178,966	-
Derivative warrant liability from financing (non-current)	15	-	190,303
		\$ 23,403,362	\$ 21,660,178

The carrying amounts of cash and cash equivalents, accounts receivable, restricted cash and accounts payable and accrued liabilities are considered a reasonable approximation of fair value due to their short-term nature.

(b) Foreign exchange risk

A portion of the Company's revenues are derived from product sales in Europe, denominated in Euros. Management has considered the stability of the foreign currency and the impact a change in the exchange rate may have on future earnings during the forecasting process. The Euro represents approximately 31% of the revenue for the nine months ended September 30, 2019 (nine months ended September 30, 2018: 22%). A 10% change in the foreign exchange rates for the Euro for foreign currency denominated accounts receivable will impact net income as at September 30, 2019 by approximately \$6,180 (as at September 30, 2018: \$10,967), and a similar change in foreign currency denominated accounts payable, which are denominated in Canadian dollars and Euros will impact net income by approximately \$57,151 and \$111,781, respectively, as at September 30, 2019 (as at September 30, 2018: \$22,482 and \$41,711, respectively). A similar change in foreign currency denominated cash and cash equivalents, and restricted cash, which are denominated in Canadian dollars and Euros will impact net income by approximately \$85,470 and \$56,715, respectively, as at September 30, 2019 (as at September 30, 2018: \$22,482 and \$41,711, respectively). The Company does not hedge its foreign exchange risk.

(c) Interest rate risk

The Company is not exposed to material cash flow interest rate risk on fixed rate cash balances, and short-term accounts receivable, accounts payable, 2017 Notes that do not accrue interest or 2019 Notes that have fixed interest terms.

(d) Liquidity risk

As at September 30, 2019, the Company had \$11,396,063 in cash and cash equivalents as compared to cash and cash equivalents of \$9,242,809 at December 31, 2018. The Company is dependent on the profitable commercialization of its products or obtaining additional debt or equity financing to fund ongoing operations until profitability is achieved.

The Company monitors its cash flow on a monthly basis and compares actual performance to the budget for the period. After receipt of the net proceeds of approximately \$3.9 million from the February 2019 Financing, \$4.2 million from the

March 2019 Financing, and \$11.35 million from the May 2019 Financing, the Company expects that its cash on hand as at September 30, 2019 is sufficient to sustain operations until approximately March 2020 at the current burn rate. The Company may obtain additional debt or equity financing in future periods. Further into the future the Company is dependent on the profitable commercialization of its products or obtaining additional debt or equity financing to fund ongoing operations until profitability is achieved.

Trades payables were aged as follows as at September 30, 2019 and do not include accrued liabilities. All trades payables are current liabilities:

	<u>Total</u>
Current	\$ 1,327,694
31-60 days	805,473
Over 60 days	<u>920,556</u>
	\$ 3,053,723

The following is an analysis of the contractual maturities of the Company's non-derivative accrued liabilities as at September 30, 2019:

	<u>Within One Year</u>	<u>Between One and Two Years</u>
Collaboration, license and settlement agreements (undiscounted)	\$ 1,250,000	\$ 1,250,000
	<u>\$ 1,250,000</u>	<u>\$ 1,250,000</u>

(e) Credit risk

Credit risk arises from the possibility that the entities to which the Company sells products may experience financial difficulty and be unable to fulfill their contractual obligations. This risk is mitigated by proactive credit management policies that include regular monitoring of the debtor's payment history and performance. The Company does not require collateral from its customers as security for trade accounts receivable but may require certain customers to pay in advance of any work being performed or product being shipped.

The maximum exposure, if all of the Company's customers were to default at the same time is the full carrying value of the trade accounts receivable as at September 30, 2019 is \$541,180 (as at December 31, 2018: \$637,421). As at September 30, 2019, the Company had \$284,744 (as at December 31, 2018: \$311,642) of trade accounts receivable that were overdue according to the customers' credit terms. During the three and nine months ended September 30, 2019 the Company wrote down \$nil and \$64,600, respectively, of accounts receivable owed by customers (three and nine months ended September 30, 2018: \$489,449 and \$489,449, respectively).

The Company may also have credit risk related to its cash and cash equivalents and restricted cash, with a maximum exposure of \$11,849,115 as at September 30, 2019 (as at December 31, 2018: \$9,682,545). The Company minimizes its risk to cash and cash equivalents and restricted cash by maintaining the majority of its balances with Canadian Chartered Banks.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OF FINANCIAL REPORTING

The Company's management, under the supervision of the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), has designed disclosure controls and procedures ("DC&P") and internal control over financial reporting, based on the *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). DC&P are defined in Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") as those controls and procedures designed to ensure that information required to be disclosed in the annual filings and interim filings and other reports filed or submitted by the Company under the Exchange Act is duly recorded, processed, summarized and reported, within the time periods specified in rules and forms of the SEC.

DC&P are designed to provide reasonable assurance that material information relating to the Company is made known to the CEO and CFO during the reporting period and the information required to be disclosed by the Company is recorded, processed, summarized and reported in a timely and appropriate manner. ICFR is designed to provide reasonable

assurance regarding the reliability of financial reporting for external purposes in accordance with international financial reporting standards. Due to the inherent limitations associated with any such controls and procedures, management recognizes that, no matter how well designed and operated, they may not prevent or detect misstatements on a timely basis.

As an “emerging growth company” as defined in the U.S. Jumpstart Our Business Startups Act of 2012, the Company will not be required to comply with the auditor attestation requirements of the U.S. Sarbanes-Oxley Act of 2002 for as long as the Company remains an “emerging growth company”, which may be for as long as five years following its initial registration in the United States. Similarly, the Company is not required to provide an auditor attestation of internal control over financial reporting for so long as they remain a non-accelerated filer under relevant SEC rules.

The Company’s management, under the supervision of the CEO and CFO, has evaluated both the design and operating effectiveness of its DC&P and ICFR and concluded that no material weakness in ICFR occurred during the quarter ending September 30, 2019.

There have been no material changes in our DC&P and ICFR during the nine months ended September 30, 2019, that have materially affected, or are reasonably likely to affect our DC&P and ICFR.

ADDITIONAL INFORMATION

Additional information about the Company, including the Company’s Financial Statements and Annual Report on Form 20-F, are available on SEDAR at www.sedar.com and on the website of the SEC at www.sec.gov.