AURORA SPINE CORPORATION

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2019

This management's discussion and analysis of financial conditions and results of operations ("MD&A") is intended to assist you in understanding the corporate structure of Aurora Spine Corporation ("the Company", "we", "our") and evaluating the changes in the Company's financial condition and operations for the nine months ended September 30, 2019.

The MD&A should be read in conjunction with the audited consolidated financial statements for the years ended December 31, 2018 and the unaudited condensed interim consolidated financial statements for the nine months ended September 30, 2019 prepared in accordance with IFRS together with the accompanying notes. Additional information is available on SEDAR at www.sedar.com, and on our website at www.auroraspine.us.

The Company's functional currency and presentation currency is US dollars and all amounts are shown in US dollars, unless otherwise indicated. The financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

This MD&A is prepared as of November 21, 2019.

FORWARD-LOOKING STATEMENTS

This document may contain forward-looking statements that reflect management's current expectations with regard to future events. Such forward-looking statements are subject to certain factors and involve a number of risks and uncertainties. Actual results may differ from expected results. Factors that could cause our results, our operations and future events to change materially compared to the expectations expressed or implied by such forward-looking statements include, but are not limited to, market risk, interest rate risk, currency risk, credit risk and liquidity risk, uncertainty regarding additional funding requirements and our ability to obtain such funding and uncertainty regarding sales as well as those risks and uncertainties mentioned herein. We believe that the assumptions and expectations reflected herein are reasonable, but no assurance can be given that these assumptions and expectations will be correct. You should not place undue reliance on forward-looking statements as the plans, assumptions, intentions or expectations upon which they are based might not occur.

DURING THE PERIOD

Q3 2019 was a watershed quarter for the Company and served to sharpen our strategic direction as we prepare for 2020 and the longer term. In the last 2 quarters, we have seen a rapid acceleration of sales in what we call third-party products; those products we in-license from other vendors in order to meet the needs of surgeons, both new surgeons and those we currently we work with and their patients. Third-party products, when used in conjunction with Aurora products may serve to enhance our sales but they may also act to displace certain of our own Aurora products. Certain of our surgeons and hospital groups have indicated a strong preference for having all of our products be of the Aurora brand. In addition, as can be seen in this quarter's financial information, sales of these third-party products are significantly less profitable to the Company.

We are pleased to announce that our efforts to address these concerns, begun in Q2 2019, are expected to begin making a significant difference starting as early as Q1 2020. We have been exploring everything from working with our third-party vendors to allow branding changes and price adjustments, to acquiring FDA cleared products that meet our requirements, to combining with other companies with products that would complement our own Aurora products. We are well down this road and expect to begin announcing some of these changes in early 2020. We believe the positive impact on our cashflow next year will be significant.

In addition to the above, Q4 2019 sees us working hard to finalize and bring to market 3 new products: two new SI Joint fusion products in development, one of which is expected to be in the market in Q1 2020 and our ZIPFlex expected at the end of next year. Some of the costs from all of these initiatives can be seen in our Q3 2019 financials relating to marketing, travel and G&A.

BUSINESS OF AURORA

Aurora is focused on bringing new solutions to the spinal implant market through a series of innovative, minimally invasive, regenerative spinal implant technologies. The Company's goal is to improve patients' quality of life by developing and distributing spinal implant products that relieve back pain and preserve spinal bone structure and anatomy. Once fully developed, we expect our product portfolio to primarily address the market need for minimally invasive spinal surgical devices.

Since our inception, we have acquired certain product designs and intellectual property from certain of our founders as well as through purchase agreements with third parties. We have also furthered product research and development on the product designs, secured premises to conduct our business and train physicians, undertaken the filing of patent applications, and conducted initial marketing and distribution development. We are a registered ISO 13485 certified company. We received a CE Mark certificate from the British Standard Institute in respect of our first product on July 19, 2013, and we received FDA approval for the Company's ZIP™ Ultra Minimally Invasive Interspinous Fusion System (the "ZIP ULTRA™") product on December 3, 2013.

Our Products

Our ISP ("interspinous process" or "ISP") lumbar fusion devices now include the ZIP™ and ZIP ULTRA™, the ZIP LP™ and the new ZIP-51™. Additionally, we currently offer a line of interbody products – the TiNano™ product line including EOS, Echo and EchoXL for the lumbar section of the spine and Discovery for cervical procedures. We continue with development of products that fall into one of the following product lines which we intend to market over the next several years. These product lines are:

- ISP lumbar fusion devices;
- Ti-Coated PEEK (polyether ether ketone) interbody cages;
- Stand-alone ("SA") Cervical and Lumbar devices;
- Minimally invasive lumbar and cervical devices; and
- Posterior SI Joint fusion products.

In addition, Aurora markets certain third-party developed products used during spine surgeries. Our major product groups are discussed below.

ISP Products

Our ISP devices are designed for patients suffering from degenerative disc disease whose pain has not been eliminated by non-surgical treatment methods. The vast majority of these patients get treated using open surgery to install pedicle screws and rods to fix and ultimately allow two or more vertebrae to fuse together.

Our ISP product design utilizes an interlocking two-piece design consisting of two titanium side plates with a hollow titanium core chamber to host bone or biologic grafting material. The side plates have been designed as solid geometries with proprietary swiveling spikes to aid in attachment to uneven bone surfaces. The outer portions of the device are durable enough to last a lifetime under both compressive and tensile loads, while still maintaining required stiffness in the interspinous space. The hollow core chamber will be available in a variety of diameters to fit most patient anatomies.

Our ISP devices are also designed with a proprietary mechanism along the barrel for locking the side plates together. We believe this is superior to our competitors' screw/nut locking mechanisms for permanence, stability and ease of implantation.

We currently offer a lower spine (lumbar) ISP device although some of our devices have been used mid-spine (thoracic). In the future, we may introduce a multi-segment ISP device that will cover a larger number of spine segments and be designed to allow surgeons to perform corrective procedures (e.g., for scoliosis) without pedicle fixation.

Ti-PEEK Interbody Cages

Interbody cage products are used to fill the space between vertebrae after degenerative disc material has been removed. The cages provide spacing and stability between the vertebrae while bone grows to complete the fusion process. In November 2013, we entered into an agreement with Intuitive Spine, LLC to purchase interbody cage devices for use in cervical spinal fusion procedures ("AURORA DISCOVERY" or "DISCOVERY"). DISCOVERY is a cervical intervertebral body fusion device consisting of teeth on the inferior and superior surfaces to prevent back out and migration. The implant design is rectangular with a hollow core for bone graft to promote integration and fusion between the endplates. The DISCOVERY cage products are constructed of radiolucent PEEK material. As a result of the DISCOVERY agreement, we acquired PEEK interbody cages and the instrument sets used to implant the cages and the U.S. Food and Drug Administration ("FDA") 510(k) approval associated with the cages.

In February 2014, the Company began introduction of its sterile-packed titanium plasma spray coated ("TiNano™") spinal infusion implants. TiNano™ is the Company's unique Titanium Plasma Spray coating on PEEK Interbody implants allowing for bone growth due to its porous structure. TiNano-coated implants provide the advantages of all implant materials, bone-titanium osseo-integration from the titanium coating, as well as the modulus and post-op imaging advantages of PEEK fusion implants. The Company uses the TiNano™ technology in almost all of its interbody fusion devices, including configurations for Anterior Cervical ("ACIF"), Posterior Lumbar ("PLIF"), Transforaminal Lumbar ("TLIF") and Direct Lateral ("DLIF") interbody spacers.

SA-ALIF Cages

Aurora Spine currently has a business relationship with an implant manufacturer to distribute its 3D Printed Stand-Alone ALIF Cage (SA-ALIF) Technology made of porous titanium. SA-ALIF is an integrated plate and spacer system that helps to preserve the natural anatomic profile while providing spinal column support and stability.

Anterior lumbar interbody fusion (ALIF) is a spine surgery that involves approaching the spine from the front (anterior) of the body to remove all or part of a herniated disc from in between two adjacent vertebrae (interbody) in the lower back (lumbar spine), then fusing, or joining together, the vertebrae on either side of the remaining disc space using bone graft or bone graft substitute. Anterior approaches, such as in SA-ALIF, allow surgeons access to the discs at the front of the spine and do not require muscle stripping as in posterior approaches. SA-ALIF provides the surgeon with a clear approach to the lumbar spine.

Utilizing our ZIP™ ISP platform in harmony with 3D Printed SA-ALIF Cage Technology allows Aurora to participate in the full procedure in a Lumbar fusion surgery, adding value to the patient, the doctor and the company. Multiple published clinical studies support the procedure, documenting positive clinical outcomes such as reduced blood loss, less time in the O.R., and shortened hospital stays as compared to traditional posterior fusion procedures.

CORPORATE STRUCTURE

The Company was incorporated under the laws of the Province of Ontario on July 4, 2013. The registered head office of the Company is located at 20 Holly Street, Suite 300, Toronto, Ontario, M4S 3B1. The principal office of the Company is located at 1930 Palomar Point Way, suite 103, Carlsbad, California, 92008. The Company was formed as part of a reorganization to carry out a Public Offering ("Public Offering") and to acquire all of the outstanding capital stock of Aurora Spine, Inc. ("Aurora"). The Public Offering was completed on September 5, 2013.

On September 5, 2013, the Company and its wholly-owned subsidiary AS Acquisition Corp. (a newly-formed Nevada corporation) and Aurora entered into a merger agreement which set forth the terms and conditions pursuant to which the Company acquired all of the issued and outstanding shares of capital stock of Aurora in exchange for the issuance to the existing shareholders of an aggregate of 7,272,059 Common Shares and 6,107,141 Restricted Voting Shares. Pursuant to the merger agreement, Aurora and AS Acquisition Corp. merged under the laws of the State of Nevada, with Aurora being the surviving entity. The reorganization closed immediately prior to the closing of the Public Offering and was intended to be treated as an integrated transaction with the Public Offering for U.S. federal income tax purposes.

During fiscal 2013, Aurora Spine Europe, Ltd., ("Aurora Ltd.") incorporated under the laws of the United Kingdom. It is a wholly-owned subsidiary of the Company. Aurora Ltd. began conducting business during fiscal 2014.

Between January 15, 2014 and October 18, 2017, the Company completed various private placements raising an aggregate gross proceeds of CDN$16,594,354 (US$14,774,138), issuing a total of 17,584,474 common shares.

On February 6, 2018, the Company completed a private placement of common shares (the "February 2018 Offering"). Pursuant to the February 2018 Offering, the Company issued 9,265,000 common shares at a price of CDN$0.10 (US$0.08) per share for aggregate gross proceeds of CDN$926,500 (US$741,200). In connection with this Offering, the Company paid aggregate cash commissions equal to CDN$29,490 (US$23,677). A director of the Company subscribed for an aggregate of 1,800,000 common shares for cash consideration of CDN$180,000 (US$144,000).

On December 13, 2018, the Company issued to SILIF Corporation (SILIF) as consideration for the SILIF patent license, 1,000,000 common shares at a price of CDN$0.30 (US$0.224) per share, with all such shares being subject to a 5 year tiered lock-up agreement, with 20% of the shares released from the lock-up on each anniversary of the closing date of the transaction. The fair value of the shares issued was estimated at $238,180 using the Finnerty model to calculate a restriction discount. In addition, the Company issued to SILIF warrants to purchase up to 1,750,000 common shares of the Company, exercisable at CDN$0.35 for a period of 5 years following the date of grant. The warrants will vest in 20% increments on each anniversary of the closing date of the transaction. The fair value of the warrants issued was estimated at $365,716 using the Black-Scholes model.

On July 1, 2019 pursuant to the exercise of 44,070 stock options, the Company issued 44,070 common shares at prices ranging from CDN$0.09 to CDN$0.19 with a weighted average exercise price of approximately CDN$0.15 (USD$0.11) per share for aggregate gross proceeds of CDN$6,519 (USD$5,005).

The net proceeds of the private placements have been and will be used for general working capital purposes.

SPINAL IMPLANT MARKET

Product Regulation

Sale of our products requires approval under the FD&C Act in the United States, registration and approval of a CE mark in the European Union, and similar regulatory approvals in other jurisdictions around the world. Further, our products require approval by the governing board of hospitals at which our implants will be used in surgery.

All of our products are classified as Class II devices in the United States. Class II devices require either approval or clearance from the FDA before they can be marketed in the United States. Products that have substantial similarity to products that already have been approved by the FDA can obtain clearance for marketing through the Premarket Notification process under Section 510k of the FD&C Act. Devices that are not substantially similar to previously approved products must obtain U.S. Food and Drug Administration ("FDA") approval through the more rigorous, time-consuming and expensive Premarket Approval process, which in most cases requires extensive clinical trials.

In the US, the vast majority of spinal implants today are paid for by third-party payors, either private insurance companies or government programs, including Medicare, Medicaid or state workers compensation programs. We believe that surgeons, hospitals and ambulatory surgical centers can use current North American Spine Society ("NASS") and Medicare-approved payment codes with any of our proposed products, and that our products should be reimbursable under both private and government-sponsored insurance plans.

Surgical Solutions

Spinal surgery has been used since the early 1900's to treat back pain and neck spinal pain. However, surgery can be expensive and complicated, and generally is recommended only when conventional therapies such as physical therapy, exercise, traction, bed rest, braces and steroid and non-steroid anti-inflammatory medications, have failed.

Lower back pain is generally considered one of the most widely experienced health problems in the United States and many parts of the world, and one of the most frequent conditions for which people see a physician or are absent from work. Other factors driving the growth of the global spinal fusion market are believed to be growing awareness about treatment of spinal disorders, rising income levels, rising obese populations and a rising number of spinal injury resulting from increased use of machinery and motor vehicles in certain regions of the world.

Spinal Fusion

Spinal fusion is among the most common spinal surgeries performed today, and is used primarily to eliminate the pain caused by abnormal motion of the vertebrae in a weak or unstable spine (caused by infections, tumors, or other degenerative conditions) and to treat spinal fractures. It is also used to treat spinal deformities such as scoliosis and kyphosis.

Spinal fusion is a surgical technique used to join two or more vertebrae. Spinal fusion works in conjunction with the body's natural bone growth processes to set up a biological response that causes a bone graft, using material implanted by the surgeon, to grow between the two vertebral elements and fuse the two vertebral elements together into one long bone, thereby stopping the motion that causes the pain. The fusion process typically takes six to twelve months after surgery to complete.

In most cases, spinal fusion is augmented by a process called fixation, which refers to the placement of permanent rigid or semi-rigid prosthetic devices made of titanium or other materials. These devices were developed in response to the need to limit compression on the affected vertebrae and stabilize them in order to facilitate bone fusion, without requiring the patient to be immobilized. These fusion/fixation devices include pedicle screws, rods or plates, cages constructed of PEEK and, more recently, ISP devices.

Spinal fusion techniques currently are used in both cervical and lumbar spines. Most fusions on the cervical spine are performed using anterior interbody fusion, in which, following an anterior discectomy, a bone graft is placed between two vertebrae and replaces the removed disc. During the healing process, the vertebrae grow together, creating a solid piece of bone out of the two vertebrae.

Three types of interbody fusion procedures are most commonly used today:

1. Anterior Lumbar Interbody Fusion, in which an abdominal incision is used to reach the lumbar spine;
2. Posterior Lumbar Interbody Fusion, in which an incision on the patient's back is used to reach the lumbar spine; and
3. Lateral Lumbar Interbody Fusion, in which a lateral incision is used to reach the lumbar spine.

One of the challenges for both surgeons and spinal implant device companies is to bridge the gap between patient satisfaction and clinical success. Early fusion procedures performed without fixation devices and using grafts of the patient's own bone required a secondary surgical site from which the bone would be harvested, and often suffered from stabilization issues during the period needed for vertebral fusion to occur. Plate devices and pedicle screws, while effective at stabilization, involve more anatomically invasive procedures and can involve extended recovery times.

Other Surgical Options

The growing need to identify better solutions for degenerative disc of the spine has led to innovation in less-invasive spinal fusion procedures, spinal navigation systems and robotics, non-fusion, motion-preserving devices, and advanced biological products, including allografts, synthetics and bone-morphogenetic proteins ("BMPs"), which eliminate the need to harvest bone for grafts from the patient's own body.

In recent years, MIS devices have been introduced into the spinal implant market to provide a less invasive alternative to pedicle screw instrumentation in fusion procedures. ISP devices attach to the spine with a clamp, rather than screws, and utilize counter stresses to help maintain attachment. These devices are designed to provide the necessary fixation and stability, while preserving the patient's anatomy and reducing complications and recovery time. Also, in recent years so-called "motion preserving" techniques, such as artificial disc replacement, have begun to be offered as alternatives to fusion. These techniques have not yet been adopted on a widespread basis in the U.S. because, amongst other things, reimbursement by third-party payors has not been rapidly forthcoming and the advantages of these techniques over fusion have not been well established.

The Changing Market

Pedicle screw systems continue to dominate the spinal fusion market. We believe that this is due, in part, to the fact that the largest companies in the spinal fusion market continue to promote their pedicle screw systems aggressively. However, the spinal fusion market appears to be moving toward newer technologies and more minimally invasive approaches to spinal fusion. We believe this is the reason pedicle screw fusion has been losing market share to newer technologies such as dynamic stabilization (motion preserving devices), ISP devices, stand-alone devices, artificial discs and other alternative solutions.

While some of these newer technologies have yet to be widely accepted for reimbursement by third-party payors, our experience is that current NASS and Medicare-approved payment codes are favorable to stand-alone devices, and we continue to see a surge of stand-alone technologies introduced into the market. It has also been our experience that current reimbursement codes favor ISP technology, and that surgeons, hospitals and ambulatory surgical centers are able to use current NASS and Medicare-approved payment codes with both stand-alone and ISP devices. We believe this will lead to continued growth for these technologies in the coming years.

Competition

The global spinal surgery market is characterized by strong competition. Management believes the top five companies account for more than 70% of the overall market, and that the FDA's reclassification of spinal fusion devices from Class III to Class II in 2007 has attracted, and will continue to attract, new entrants in the market. We continue to see product launches and an increased focus on research and development activities, and we anticipate that intense competition between the new entrants and existing companies may lead to pricing pressure on all companies in the future.

Companies such as Medtronic Inc., Zimmer Biomet and DePuy Synthes, are the leading players in the global market for spinal surgery devices and represent a significant portion of the total market share. We believe that this is due, in large part, to their broad portfolios of spinal fusion devices. Other companies with significant market shares include Stryker Corporation and NuVasive Inc.

We believe that the worldwide spinal implant market currently includes over 200 pedicle screw systems, but that less than fifteen active competitors offer ISP fusion devices in the United States.

Further information and analysis regarding the Company's overall performance is discussed below.

OVERALL PERFORMANCE

Aurora Spine Corporation's consolidated financial statements are presented in US dollars which is its functional currency.

The financial statements are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

SELECTED BALANCE SHEET INFORMATION

The following table summarizes selected key financial data.

As at	September 30, 2019 $	December 31, 2018 $	December 31, 2017 $
Cash	447,750	856,504	12,665
Trade receivables	2,025,777	1,584,269	811,491
Prepaid expenses and deposits	148,164	219,301	471,859
Inventory	2,534,121	2,562,957	2,462,509
Current assets	5,155,812	5,223,031	3,758,524
Intangible assets	842,569	853,529	264,247

As at	September 30, 2019 $	December 31, 2018 $	December 31, 2017 $
Property and equipment	743,721	766,602	1,265,720
Total assets	6,742,102	6,843,162	5,288,491
Current liabilities	2,001,583	1,868,960	1,735,108
Long-term liabilities	2,410,707	2,016,000	1,902,000
Common share equity	20,666,158	20,661,153	19,706,040

ANALYSIS OF FINANCIAL CONDITION AND FINANCIAL PERFORMANCE

Since inception, Aurora has focused research and development followed by marketing and surgeon education to grow our business. The Company has expanded the range of products offered, applied for and received FDA approval for several products and increased the number of hospital approvals.

The Company now has several FDA cleared products and procedures, all designed to improve spine patient outcomes, drive continued surgeon interests, and provide unique benefits that deliver value to hospitals and patients. Inventory is on-hand to support future sales and hospital approvals have increased.

SELECTED QUARTERLY INFORMATION

The Company's functional currency is the US dollar (USD). The functional currency of the Company's US subsidiary Aurora, is the USD and its European subsidiary Aurora Spine Europe Ltd., is the Euro.

Operating results for each quarter for the last two fiscal years are presented in the table below.

Quarters ended	**September 30, 2019 $**	June 30, 2019 $	March 31, 2019 $	December 31, 2018 $	**September 30, 2018 $**	June 30, 2018 $	March 31, 2018 $	December 31, 2017 $
Revenue	**2,530,602**	3,260,247	2,729,221	2,500,976	**2,675,947**	2,002,101	1,503,297	1,349,975
Cost of goods sold	**(1,518,986)**	(1,971,382)	(1,564,504)	(1,266,038)	**(1,319,018)**	(877,746)	(626,453)	(1,017,320)
Gross profit	**1,011,616**	1,288,865	1,164,717	1,234,938	**1,356,929**	1,124,355	876,844	332,655
Operating expenses	**1,429,015**	1,332,970	1,370,318*	1,324,231*	**1,217,196***	1,083,310*	1,036,527*	1,230,740*
EBITDAC**	**(116,189)**	259,250	86,433	157,823	**396,809**	298,579	72,977	(649,335)
Net income (loss)	**(417,399)**	(44,105)	(205,601)	(89,293)	**139,733**	41,045	(159,683)	(898,085)
Basic and diluted income (loss) per share	**(0.01)**	(0.00)	(0.00)	(0.00)	**0.00**	0.00	(0.00)	(0.03)

* Adjusted by gains (losses) on sale of property and equipment.

** EBITDAC - a non-GAAP, non-IFRS measure defined as Earnings before Interest, Tax, Depreciation, Amortization and Stock-based Compensation. Additionally, this amount is adjusted by gains (losses) on sale of property and equipment.

Since the Company has been in the development stage, quarterly operating results have varied in the past and may vary substantially in the future. Accordingly, the information above is not necessarily indicative of results for any future quarter.

<u>Comparative - Three Months Ended September 30, 2019 and 2018</u>

During the three months ended September 30, 2019 we generated revenues in the amount of $2,530,602 compared to $2,675,947 during the same period the previous year, a decrease of just over 5%. Sales of cervical screws and plates and biologics increased, offset by a decrease in sales of cervical and lumbar cages and ZIP products.

More importantly, sales of Aurora products during the three months ended September 30, 2019 decreased by 32.3% over the comparable period, whereas sales of third-party products, primarily screws, plates and stand-alone cages grew by 31.9%.

During the three months ended September 30, 2019 cost of sales was $1,518,986 and gross profit was $1,011,616 as compared to $1,319,018 and $1,356,929 in the comparable period. Our gross profit decreased by $345k, or 25.4%. Our gross margin was 40% of revenues compared to 50% in the comparable period. This decrease reflects a growing trend wherein our third-party party product sales are growing at a faster rate than or cutting into our proprietary product sales (we earn significantly less margin on third-party products). Also, external commissions paid to some of our key distributors increased during the current quarter. We are looking at ways to mitigate these trends including acquisitions and discussions with some of our key third-party suppliers to improve our costs as volume grows and expect to see progress on these discussions by year end.

During the three months ended September 30, 2019, EBITDAC was a negative $116,189, compared to $396,809 during the same period the previous year. The previous six consecutive quarters showed positive EBITDAC for Aurora. Drivers of this decline are a changing product sales mix (with expectations of significant positive change over the next few quarters), increased marketing and travel expenditures, an increased reserve for bad debts, and increased R&D expenditures to support development of our new SI Fusion products (SiLO and EaSIfx) and ZIPFlex. These two product lines are expected to further boost sales, in part in early 2020.

Operating expenses during the current quarter were $1,429,015 compared to 1,217,196 during the same period the previous year. Operating expenses increased by $211.8k or 17% as compared to the same period the previous year reflecting the Company's increased sales and marketing activity, increased reserves for bad debts and increased product engineering and research and development efforts on several new products during the quarter. These expenses reflected the Company's drive for increased revenue growth and future products.

Executive compensation during the quarter was $110,753 compared to $117,660 during the same period the previous year. The decrease in executive compensation was due to a voluntary salary reduction taken by the chief executive officer in the current quarter.

Salaries expense during the quarter was $324,206 compared to $389,029 during the same period the previous year. The decrease resulted from a decrease in regulatory personnel as well as a decrease in sales commissions due to decreased sales and offset somewhat by an increase in engineering and accounting personnel.

Consulting fees incurred during the quarter were $118,204 compared to $93,389 during the same period the previous year. These fees relate to amounts paid to physicians consulting on product and instrument development and increased as a result of the addition of various physician product consulting contracts primarily during the first quarter of 2019.

General and administrative expenses were $293,572 during the current quarter compared to $189,799 during the same period the previous year. General and administrative expenses relate to development of the business including, but not limited to, business travel, transportation and lodging, office expenses, shipping supplies, licenses and permits, fees and FX gain or loss. The increase primarily relates to an increase in the reserve for bad debts related to one customer in the amount of $122,810. We are continuing to work with this customer in an effort to collect this bad debt.

Research and development expense during the quarter was $22,462 compared to $5,510 during the same period the previous year. Research and development expenses primarily relate to the development of new products and enhancements to our existing product lines. The increase primarily relates to an increase in outside engineering services used to support development of our new SI Fusion product (EaSIfx) and ZIPFlex. These two product lines are expected to further boost sales in early 2020.

Marketing costs during the quarter were $138,510 compared to $28,718 during the same period the previous year. Marketing expense during the current quarter primarily relates to advertising, web site development and promotion. The increase reflects the Company's participation in a symposium previously not attended and an increase in costs related to trade shows.

Professional fees during the quarter were $3,325 compared to $9,983 during the same period the previous year. Professional fees include legal fees and costs related to regulatory and financial audits. The decrease is primarily due to a reduction of costs related to regulatory audits and the timing of annual tax preparation services performed.

Insurance expense during the quarter was $116,773 compared to $101,991 during the same period the previous year. Insurance expense includes health insurance for employees, premium costs for product insurance and general liability insurance. This increased in the current quarter due to a requirement for increased product liability coverage and an increase in the cost of employee health insurance.

Interest expense during the current and comparative quarter (other than interest related to the lease liability) was consistent, being $36,000. The expense relates to the Company's annual insurance premium finance agreement and to the proceeds of the promissory note received in July 2016. The promissory note bears an interest rate of 9% per annum. The interest expense is non-cash and the amount is added to the principal balance of the note.

Cash Flows – Three Months Ended September 30, 2019 and 2018

Cash flows from operating activities during the three months ended September 30, 2019 were $110,720 (three months ended September 30, 2018 - $407,288), primarily consisting of the operating loss reduced by depreciation, amortization, non-cash stock-based compensation and loan interest and the changes in working capital components during the period which include a decrease in trade and other receivables, prepaid expenses and deposits, inventory and trade and other payables.

Cash flows used in financing activities during the three months ended September 30, 2019 were $34,887, resulting from lease payments and repayment of amounts due to related parties, offset by cash received from the exercise of stock options and resulting issuance of common shares. Cash flows used in financing activities during the three months ended September 30, 2018 were $7,500 due to payments made on a shareholder loan.

Cash flows used in investing activities during the three months ended September 30, 2019 were $17,641 resulting from additions to trays, instruments and other property and equipment. Cash flows used in investing activities during the three months ended September 30, 2018 were $3,611 resulting from additions to property and equipment offset by proceeds received from the sale of trays and instruments.

Comparative - Nine Months Ended September 30, 2019 and 2018

During the nine months ended September 30, 2019 we generated revenues in the amount of $8,520,070 compared to $6,181,345 during the same period the previous year, an increase of over 37%. Sales of biologics and cervical screws, plates and cages and lumbar screws and cages increased, offset by a decrease in sales of ZIP products.

Sales of Aurora products during the nine months ended September 30, 2019 grew by less than 1% over the comparable period (including softer ZIP sales) whereas sales of third-party products, primarily screws, plates and stand-alone cages almost doubled.

During the nine months ended September 30, 2019 cost of sales was $5,054,872 and gross profit was $3,465,198 as compared to $2,823,217 and $3,358,128 in the comparable period. While our actual gross profit improved, our gross margin was 41% of revenues compared to 54% in the comparable period. This decrease reflects a growing trend wherein our third-party product sales are growing at a faster rate than or cutting into our proprietary product sales (we earn significantly less margin on third-party products). Also, external commissions paid to some of our key distributors increased during the current period. We are looking at ways to mitigate these trends, including acquisitions and discussions with some of our key third-party suppliers to improve our costs as volume grows and expect to see progress on these discussions by year end.

During the nine months ended September 30, 2019, EBITDAC was $229,494, compared to $768,365 during the same period the previous year. Drivers of this decline are changing product mix (with expectations of significant positive change over the next few quarters, as noted above), increased marketing and reserves for bad debt and increased R&D expenditures to support development of our new SI Fusion product (EaSIfx) and ZIPFlex. These two product lines are expected to further boost sales, in part in early in 2020.

Operating expenses during the current period were $4,132,303 compared to $3,337,033 during the same period the previous year. Excluding the adjustments, operating expenses were $4,131,521 (2018 - $3,345,389), 23.5% higher compared to the same period the previous year.

Executive compensation during the period was $365,339 compared to $376,051 during the same period the previous year. The decrease in executive compensation was due to a voluntary salary reduction taken by the chief executive officer in the current period.

Salaries expense during the period was $1,064,164 compared to $956,385 during the same period the previous year. The increase reflects an increase of warehouse, engineering, accounting, sales and regulatory personnel as well as an increase in sales commissions resulting from increased sales and quarterly quotas being achieved.

Consulting fees incurred during the period were $322,919 compared to $218,811 during the same period the previous year. These fees relate to amounts paid to independent sales consultants and physicians consulting on products. The increase reflects the addition of various physician product consulting contracts primarily during the first quarter of 2019.

General and administrative expenses were $696,736 during the current period compared to $473,918 during the same period the previous year. General and administrative expenses relate to development of the business including, but not limited to, business travel, transportation and lodging, office expenses, shipping supplies, licenses and permits, fees and FX gain or loss. The increase primarily relates to increased travel in relation to increased sales, IT and other office expenses, merchant fees and reserves for bad debts totaling $140,310.

Research and development expenses during the period were $163,700 compared to $23,043 during the same period the previous year. Research and development expenses primarily relate to the development of new products and the enhancements to our existing product lines. The increase primarily relates to an increase in outside engineering services used to support development of our new SI Fusion product (EaSIfx) and ZIPFlex. These two product lines are expected to further boost sales in early 2020.

Marketing costs during the period were $141,950 compared to $39,285 during the same period the previous year. Marketing expense during the current period primarily relates to advertising, trade show attendance and promotion. The increase reflects the Company's participation in a symposium previously not attended and an increase in costs related to trade shows.

Professional fees during the period were $130,024 compared to $133,372 during the same period the previous year. Professional fees include costs related to legal fees, regulatory audits and financial audits.

Insurance expense during the period was $350,871 compared to $302,084 during the same period the previous year. Insurance expense includes health insurance for employees, premium costs for product insurance and general liability insurance. This increased due to a requirement for higher product liability coverage and an increase in the number of employees.

Interest expense during the period (other than interest related to the lease liability) was $110,830 compared to $110,170 during the same period the previous year. The expense relates to the Company's annual insurance premium finance agreement and to the proceeds of the promissory note received in July 2016. The promissory note bears an interest rate of 9% per annum. Much of the interest expense is non-cash and the amount is added to the principal balance of the note. Interest expense has increased as the amount of the annual insurance premium financed has increased.

Cash Flows – Nine Months Ended September 30, 2019 and 2018

Cash flows used in operating activities during the nine months ended September 30, 2019 were $107,138 (nine months ended September 30, 2018 – generated $173,717), primarily consisting of the operating loss reduced by depreciation, amortization, non-cash stock-based compensation and loan interest adjusted for a loss on sale of property and equipment and the changes in working capital components during the period which include an increase in trade and other receivables and trade and other payables, offset by a decrease in prepaid expenses and deposits and inventory.

Cash flows used in financing activities during the nine months ended September 30, 2019 were $114,729, resulting from lease payments and repayment of amounts due to related parties, offset by cash received from the exercise of stock options and resulting issuance of common shares. Cash flows received from financing activities during the nine months ended September 30, 2018 were $694,433, resulting from receipt of $741,200 private placement funds offset by issuance costs of $24,267 and repayment of amounts due to related parties of $22,500.

Cash flows used in investing activities during the nine months ended September 30, 2019 were $186,887 resulting primarily from the purchase of trays, instruments and other property and equipment offset by proceeds from the sale of instruments. Cash flows used in investing activities during the nine months ended September 30, 2018 were $259,929 resulting from the purchase of trays and instruments offset by proceeds from the sale of instruments.

LIQUIDITY AND CAPITAL RESOURCES

Our objective is to maintain sufficient liquid resources to meet operational requirements. As at September 30, 2019, we had cash of $447,750. Working capital as at September 30, 2019 aggregated $3,154,229.

Our principal uses of cash since inception have been for the development of our products, general and administrative activities, compensation and advertising and marketing efforts. Going forward, additional funds will be needed for continued product development and marketing as we continue our commercialization efforts.

We have had positive EBITDAC for the previous six quarters but experienced a negative EBITDAC this quarter primarily due to a significant reserve for bad debt recorded in connection to one of our customers. EBITDAC provides the Company with funds to grow the business. In the event we are unable to generate significant revenue and achieve profitable net income in the long term we will rely on equity and debt financing to fund our cash requirements. There is no guarantee that our operations will yield positive results in the future. There can be no assurance that new capital will be available as necessary to meet our continuing expenditures (if required), or if the capital is available, that it will be on terms acceptable to us.

COMMITMENTS, CONTINGENCIES AND OFF-BALANCE SHEET ARRANGEMENTS

Lease Commitment

The Company signed a 70 month lease for their premises commencing on June 1, 2017 and terminating on March 31, 2023. As at September 30, 2019, the minimum base rent lease commitments under the non-cancellable lease are as follows:

	September 30, 2019
Less than a year	$ 98,359
Between 1 and 5 years	258,868
Total	$357,227

ZIP ULTRA™ Device – Royalty Agreements

In December 2012, Aurora Spine LLC entered into two separate consultant agreements whereby the Company has a commitment to pay a 3.5% aggregate royalty to these consultants, based on gross sales of certain products sold and patent royalties received by the Company. Total royalties paid are not to exceed 6% of annual revenues of any given device or product line. Royalties will not be payable until the product can be placed in the market following successful completion of the pivotal medical testing and receipt of approval to market the products in the US and Canada from the Food and Drug Administration and Health Canada.

Intervertebral Body Fusion Device – Commitment and Royalty Agreement

In November 2013, the Company entered into an asset agreement whereby the Company has agreed to pay a 2% royalty of worldwide net sales of the Intervertebral Fusion Device product, payable thirty days after the end of each calendar quarter, for the prior calendar quarter. The royalty shall be paid for six years commencing July 2014 and terminating July 2020.

Intervertebral Cervical Fusion Device – Commitment and Royalty Agreement

In November 2013, the Company purchased inventory of an Intervertebral Body Fusion Device with Bone Graft for $174,000 and the related FDA 510(k) Clearance for $126,000. The Company entered into an asset purchase agreement which was later renegotiated, whereby the Company has agreed to pay a royalty payment of 5% for all sales of the Discovery PEEK cervical implants quarterly, within 30 days of the end of each calendar quarter for as long as the Company sells the implants. Gross sales are defined as total selling price, excluding taxes.

Other

The Company had no other commitments for material capital expenditures, no contingencies and no off-balance sheet arrangements, other than the above-mentioned items.

TRANSACTIONS BETWEEN RELATED PARTIES

The Company's related parties include key management and personnel and we consider key personnel to be those having authority and responsibility for planning, directing and controlling the activities of the Company, directly or indirectly. Key management are the members of the Board of Directors, the chief executive officer, the chief financial officer, the chief technology officer and chief operating officer. Unless otherwise stated, none of the transactions incorporated special terms and conditions and no guarantees were given or received. Outstanding balances are usually settled in cash.

As at September 30, 2019 and 2018, trade payable balances to related parties totaled $Nil and there is an outstanding loan payable to a director of the Company of $80,000 (2018 – $110,000) which is due on or before May 2022 and is secured by the instrument sets.

The following comprises the remuneration of key management of the Company:

	Nine months ended September 30, 2019	Nine months ended September 30, 2018
Salary	$ 365,339	$ 376,051
Stock-based compensation	8,216	17,750
Total	$ 373,555	$ 393,801

As at September 30, 2019, there is an outstanding secured promissory note (the "Note") to a director of the Company in the amount of $1,600,000 which bears an interest rate of 9% per annum and is due on or before June 2021. As at September 30, 2019, the accrued interest related to the loan is $421,500 (2018 - $277,500). The Note is secured by the tangible and intangible assets of the Company.

On February 6, 2018, the Company completed a private placement of common shares (the "February 2018 Offering"). Pursuant to the February 2018 Offering, the Company issued 9,265,000 common shares at a price of CDN$0.10 (US$0.08) per share for aggregate gross proceeds of CDN$926,500 (US$741,200). In connection with this Offering, the Company paid aggregate cash commissions equal to CDN$30,334 (US$24,267). A director of the Company subscribed for an aggregate of 1,800,000 common shares for cash consideration of CDN$180,000 (US$144,000).

Advances From Shareholder

On January 11, 2018, a director of the Company advanced an unsecured, non-convertible loan to the Company in the amount of US$125,000, bearing interest at the rate of 9% per annum. The loan was repaid in full on April 2, 2018 from the proceeds of the February 2018 private placement.

PROPOSED TRANSACTIONS

The Company is not a party to any proposed transaction that may have an effect on the financial condition, results of operations or cash flows or qualify as a proposed asset or business combination.

ACCOUNTING POLICIES

The Company has adopted accounting policies with respect to revenue, cost of sales, inventories, intellectual property and stock options which are discussed below. Foreign currency translation and recent accounting pronouncements are also discussed below.

Inventories

Inventories are initially recognized at cost and subsequently stated at the lower of cost and net realizable value. The Company's inventory primarily consists of implants (devices used in surgery). Cost of each type of inventory is determined using the first-in, first-out method and includes expenditures incurred in acquiring the inventories, sterilization, production or conversion costs, and other costs incurred in bringing them to their existing location and condition. The Company outsources its manufacturing operations to third-party manufacturers. Net realizable value is the estimated selling price less applicable selling expenses. If carrying value exceeds net realizable amount, a write-down is recognized. The write-down may be reversed in a subsequent period if the circumstances which caused it no longer exist. When inventories are sold, the carrying amount of those inventories is recognized as an expense in the period in which the related revenue is recognized.

Patent and Intellectual Property

Research costs are expensed as incurred. Expenditures on development activities are capitalized only if the product or process is technically and commercially feasible, development costs can be measured reliably, future economic benefits are probable, the Company intends to use or sell the asset, and the Company intends and has sufficient resources to complete development.

The Company capitalizes the cost of acquiring patents, intellectual property and licenses, as well as the cost of preparing the products to enter medical testing, including the design of the testing, and will amortize that cost over the useful life of the product once the system is approved and ready for use. Intellectual property and patents are amortized over 20 years unless the economic life is shorter. During the three and nine months ended September 30, 2019, the Company recorded $3,653 and $10,960 (three and nine months ended September 30, 2018 - $3,654 and $10,961) of amortization expense. As at September 30, 2019 and December 31, 2018 there was no impairment of intellectual property and product development charges.

Impairment of Property and Equipment and Intangible Assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether any indication exists that those assets have suffered an impairment loss. If any such indication exists, it estimates the asset's recoverable amount to determine the extent of the impairment loss, if any. Where it is not possible to estimate a specific asset's recoverable amount, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, assets are also allocated to specific cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the Company discounts estimated future cash flows to their present value using a pre-tax discount rate reflecting current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

Revenue

The Company derives its revenues primarily from the sale of spinal surgery implants. These spinal surgery implants may include patented ZIP MIS implant devices as well as vertebral body products and bone grafting materials (referred to as "biologics"). In addition, the Company may sell the instrument tray sets to medical groups. Revenue from the products and trays is recognized when the significant risks and rewards of ownership have been transferred to the customer, the sales price and costs can be measured reliably, and it is probable that the economic benefits will flow to the Company. These criteria are generally met at the time the product is shipped, delivered to the customer, title and risk have passed to the customer and acceptance of the product has been obtained.

The Company also receives revenue from referral fees. Revenue from referral fees primarily results from referring certain products to distributors and is recognized once the referral results in a sale. To determine whether to recognize revenue, the Company follows a 5-step process:

Step 1: Identify the contract(s) with the customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognize revenue when the entity specifies a performance obligation

Based on the above analysis on revenue recognition, management has determined that the appropriate point of revenue recognition is when a scrub form is received in all cases except for sales to stocking distributors, which is recorded as revenue when shipment is made.

Cost of Sales

Cost of sales includes the cost of manufacturing finished goods inventory (including depreciation, amortization and impairment charges), costs related to transportation, impairment, and inventory write-downs.

Share-based payments

Where equity-settled stock options are awarded to employees, the fair value of the stock options at the date of grant is charged to the statements of operations and comprehensive loss over the vesting period. Performance vesting conditions are taken into account by adjusting the number of equity instruments expected to vest at each reporting date so that, ultimately, the cumulative amount recognized over the vesting period is based on the number of options that eventually vest. Non-vesting conditions and market vesting conditions are factored into the fair value of the options granted. As long as all other vesting conditions are satisfied, a charge is made irrespective of whether these vesting conditions are satisfied. The cumulative expense is not adjusted for failure to achieve a market vesting condition or where a non-vesting condition is not satisfied.

Where the terms and conditions of options are modified before they vest, the increase in the fair value of the options, measured immediately before and after modification, is also charged to the statement of comprehensive loss over the remaining vesting period. Where equity instruments are granted to employees, they are recorded at the fair value of the equity instrument at the grant date. The grant date fair value is recognized in statements of comprehensive loss over the vesting period, described as the period during which all the vesting conditions have been met.

Where equity instruments are granted to non-employees, they are recorded at the fair value of the goods or services received in statements of comprehensive loss, unless they are related to the issuance of shares. Amounts related to the issuance of shares are recorded as a reduction of share capital. When the value of goods and services received in exchange for the stock-based payment cannot be reliably estimated, the fair value is measured by use of a valuation model. The expected life used in the model is adjusted, based on management's best estimate, for the effects of exercise restrictions, and behavioral considerations. All equity-settled stock-based payments are reflected in contributed surplus, until exercised. Upon exercise, shares are issued from treasury and the amount reflected in contributed surplus is credited to shareholders' capital, adjusted for any considerations.

Foreign Currency Translation

The Company's functional currency is the US dollar ("USD"). The functional currency of the Company's US subsidiary Aurora, is the USD and its European subsidiary Aurora Spine Europe Ltd., is the Euro. Monetary assets and liabilities denominated in a foreign currency are translated to USD at exchange rates in effect at the end of the reporting period and non-monetary assets are transferred at rates of exchange in effect when the assets were acquired, or obligations incurred. Revenue and expenses are translated at rates in effect at the time of the transactions. Foreign exchange gains and losses are included in statements of operations and comprehensive loss.

CHANGES IN ACCOUNTING POLICIES

Recent accounting pronouncements - New standards adopted as of January 1, 2018

New standards adopted as of January 1, 2018

The Company adopted the following new or amended IFRS standards for the annual period beginning on January 1, 2018.

IFRS 9 Financial Instruments

IFRS 9 Financial Instruments addresses the classification, measurement and derecognition of financial assets and financial liabilities, introduces new rules for hedge accounting and a new impairment model for financial assets. The Company has adopted the new standard as of January 1, 2018.

The new guidance does not have a significant impact on the classification and measurement of its financial instruments for the following reasons:

- The Company does not currently hold any financial assets that would be accounted for differently under the new standard;
- The Company does not have any financial liabilities designated at fair value through profit or loss, which are the only liabilities impacted by the new standard; and
- The Company does not currently have any outstanding hedges that would require reassessment under the updated hedge accounting rules.

The new impairment model requires the recognition of impairment provisions based on expected credit losses rather than only incurred credit losses as is the case under IAS 39. This applies to the Company's trade and other receivables. The Company has elected to apply the limited exemption in IFRS 9 paragraph 7.2.15 relating to transition for classification, measurement and impairment, and accordingly has not restated comparative periods in the year of initial application. The adoption of IFRS 9 had no impact on the Company's consolidated financial statements on the date of initial application. There was no change in the carrying amounts, on the basis of allocation from original measurement categories under IAS 39 Financial Instruments: Recognition and Measurement to the new measurement categories under IFRS 9.

IFRS 15 Revenue from Contracts with Customers

IFRS 15 was issued by the IASB in May 2014 and specifies how and when revenue should be recognized based on a five-step model, which is applied to all contracts with customers. On April 12, 2016, the IASB published final clarifications to IFRS 15 with respect to identifying performance obligations, principal versus agent considerations, and licensing.

The Company adopted the new standard as of January 1, 2018. The Company applied IFRS 15 retrospectively and determined that there is no change to the comparative periods or transitional adjustments required as a result of the adoption of this standard. The Company's financial performance and disclosure are not materially affected by the application of the standard.

Recent accounting pronouncements - New standard adopted as of January 1, 2019

IFRS 16 Leases

IFRS 16 supersedes IAS 17 Leases, 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. It eliminates the distinction between operating and finance leases from the perspective of the lessee. All contracts that meet the definition of a lease are recorded in the statement of financial position with a 'right-of-use' asset and a corresponding liability. The asset is subsequently accounted for as property, plant and equipment or investment property and the liability is unwound using the interest rate inherent in the lease or the Company's incremental borrowing rate. The accounting requirements from the perspective of the lessor remain largely in line with previous IAS 17 requirements.

The Company has only one lease which falls within the scope of IFRS 16. Additional information regarding the lease is in Note 12 – Commitments. The Company has adopted the modified retrospective approach from January 1, 2019. As a result, the Company has recognized a right-of-use asset representing its rights to use the underlying asset and a lease liability representing its obligation to make lease payments. Under this approach, the cumulative effect of initially applying IFRS 16 is recognized as an adjustment to equity at the date of transition, January 1, 2019. The lease liability is initially measured at the present value of the lease payments outstanding at the date of transition, discounted using the Company's incremental borrowing rate which was determined to be 5.75%. The right-of use asset is presented in 'Property and equipment' and the current and long-term portions of the lease liability are separately presented in the Statement of Financial Position.

The Company elected to apply the practical expedient to grandfather the assessment of which transactions are leases and apply IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 *Leases* will not be reassessed for whether a lease exists. The Company has also elected to not recognize right-of-use assets and lease liabilities for leases that have a lease term of 12 months or less and for leases of low-value assets. The Company will also account for leases for which the lease term ends within 12 months of the date of initial application as short-term leases.

FINANCIAL INSTRUMENTS

We initially measure financial instruments at fair value. Fair value estimates of financial instruments are made at a specific point in time based on relevant information about financial markets and specific financial instruments. As these estimates are subjective in nature, involving uncertainties and matters of significant judgment, they cannot be determined with precision. Changes in assumptions can significantly affect estimated fair values. Our financial instruments consist of cash, trade receivables, due to related parties and trade and other payables.

The fair value of cash, trade receivables, due to related parties and trade and other payables are approximately equal to their carrying value due to their short-term nature.

We classify financial instruments recognized at fair value in accordance with a fair value hierarchy that includes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

- Level 1 - valuation based on quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- Level 3 - valuation techniques using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Financial assets at Fair Value Through Profit or Loss ("FVTPL") are measured at fair value at the balance sheet date with any gain or loss recognized immediately in net income. Interest and dividends earned from these assets are also included in net income for the period. Cash is the only item currently classified as financial assets at FVTPL and is a level 1.

Loans and receivables are measured at amortized cost using the effective interest method. Any gains or losses are recognized in the Statement of Comprehensive Loss. Other financial liabilities are measured at amortized cost using the effective interest method with interest expense recognized on an effective yield basis. This classification applies to the majority of the Company's financial liabilities, including trade and other payables. Loans and borrowings are classified as current liabilities unless the Company has the unconditional right to defer settlement for at least 12 months after the end of the reporting period.

Financial Risk Management Objectives and Policies

We manage risk through establishing policies that provide management oversight related to the risks of operations, including ensuring that risks are identified and assessed, and that appropriate and effective policies are in place. Market risk is the risk that the fair value of a financial instrument will fluctuate because of changes in market prices. Market risk is segregated into three categories: other market risk, interest rate risk and currency risk. Other risks associated with financial instruments include credit risk and liquidity risk.

Credit risk

Credit risk arises when a failure by counterparties to discharge their obligations could reduce the amount of future cash inflows from financial assets on hand at the end of the reporting period.

[i] Cash - The Company minimizes its exposure to credit risk by keeping the majority of its cash as cash on deposit with a major US chartered bank. Management expects the credit risk to be minimal.

[ii] Trade receivables - The exposure to credit risk for the Company's trade receivables is reported below. The Company monitors for defaults of counterparties and now has a staff member who in part, focuses on collection of the Company's outstanding accounts receivable.

Trade Receivables

Description	September 30, 2019	December 31, 2018
Current	$ 1,195,893	$ 1,048,369
Past due 1-30 days	458,840	510,690
Past due 31-60 days	267,066	18,570
Over 60 days	103,978	6,640
Closing Balance (maximum credit risk)	$ 2,025,777	$ 1,584,269

The Company applies the simplified approach to providing for expected credit losses as prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for all trade receivables and contract assets. The loss allowance provision is based on the Company's historical collection and loss experience and incorporates forward-looking factors, where appropriate.

Individual receivables which are known to be uncollectible are also written off by reducing the carrying amount directly. Other receivables are assessed collectively to determine whether there is objective evidence that an impairment has been incurred, but not yet identified. The Company maintains an allowance for doubtful accounts that represents its estimate of the uncollectible amounts based on specific losses estimated on individual exposures and provisions based on historical experience.

The Company considers that there is evidence of impairment if any of the following indicators are present:

- significant financial difficulties of the debtor;
- probability that the debtor will enter bankruptcy or financial reorganization; and/or
- default or delinquency in payments.

During the three months ended September 30, 2019, the lifetime expected loss provision for all trade receivables and contract assets is not material. The Company has however, provided for the possibility of a loss from one customer in the amount of $140,310. Management is continuing to work with this customer in an effort to collect the amount outstanding.

The provision matrix below shows the expected loss related to the customer mentioned above at each aging category.

	Current	Aged 1-30 days past due	Aged 31-60 days past due	Aged > 60 days past due
Gross carrying amount	$1,200,893	$481,240	$364,976	$118,978
Loss allowance provision, end of the period	$5,000	$22,400	$97,910	$15,000

Foreign currency risk

The prices paid by the Company's subsidiary for services and supplies are paid in US dollars, British pounds, Euros and Canadian dollars. The Company raised funds in Canadian dollars, which have been converted to US dollars. All financial instruments are denominated in US dollars and the functional currency of the subsidiary is US dollars. The Company is not significantly exposed to currency risk at September 30, 2019 and as such not deemed to be a risk to be hedged at the present time.

Interest rate risk

Interest rate risk arises because of changes in market interest rates. The Company has no third-party borrowings and considers itself to have very minimal exposure to interest rate risk.

Liquidity risk

Liquidity risk includes the risk that we will not be able to meet operational liquidity requirements to conduct our business.

The Company's operating cash requirements include amounts necessary to obtain regulatory approval to commercialize its products. The Company's objective is to maintain sufficient liquid resources to meet operational requirements. The Company's working capital position as at September 30, 2019 was $3,154,229 (December 31, 2018 - $3,354,071). The Company's continuing operations are dependent upon its ability to secure additional debt and equity capital, divest assets or generate cash flow from operations in the future, none of which are assured. There can be no assurances that the Company's activities will be successful or that sufficient funds can be raised in a timely manner.

Capital management

The Company's objective when managing capital, defined as its debt and equity, is to safeguard the entity's ability to continue as a going concern, so that it can provide returns for shareholders and benefits for other stakeholders. The Company is not subject to any externally imposed capital requirements. The Company's objective is to ensure adequate working capital to commercialize its products and it will use the sale of equity to fund its business to the point of revenue generation and asset based borrowing being sufficient to fund the business fully. The Company considers its capital to be the aggregate of shareholders' equity, comprising share capital, contributed surplus and deficit, which at September 30, 2019 was $2,329,812 (December 31, 2018 - $2,958,202). There is no change to the Company's capital management policy for the quarter ended September 30, 2019.

OUTSTANDING SHARE DATA

Common Shares

The number of authorized common shares and preferred non-voting shares of share capital is unlimited.

The continuity of share capital is as follows:

[a] Share capital

	Common Shares	
	#	$
Balance, December 31, 2018	46,433,674	20,661,153
Stock options exercised, July 1, 2019 [i]	44,070	5,005
Balance, September 30, 2019	46,477,744	20,666,158

[i] On July 1, 2019 pursuant to the exercise of 44,070 stock options, the Company issued 44,070 common shares at prices ranging from CDN$0.09 to CDN$0.19 with a weighted average exercise price of approximately CDN$0.15 (USD$0.11) per share for aggregate gross proceeds of CDN$6,519 (USD$5,005).

[b] Stock options

A stock option plan was approved and adopted by the Board of Directors of the Corporation on September 5, 2013. The Board of Directors may from time to time grant to directors, employees and consultants, options to acquire common shares.

The plan provides that the maximum number of common shares which may be reserved for issuance to Insiders may not exceed 10% of the common shares outstanding at the time of grant. A grant to Insiders, within any twelve-month period, of options reserving for issuance a number of shares may not exceed 10% of the common shares outstanding at the time of grant. A grant to any one individual, within any twelve-month period, of options reserving for issuance a number of shares may not exceed 5% of the common shares outstanding at the time of the grant, except in certain circumstances. A grant to all persons engaged by the Company to provide investor relations activities, within any twelve-month period, of options reserving for issuance a number of shares may not exceed 2% of the common shares outstanding at the time of the grant. Finally, a grant to any one Consultant, in any twelve-month period, of options reserving for issuance a number of shares may not exceed 2% of the common shares outstanding at the time of the grant.

Options granted under the plan can have a maximum life period of ten years after the grant date.

The option exercise price is established by the Board of Directors and may not be lower than the market price of the common shares at the time of grant.

As at September 30, 2019, the number of outstanding options which could be exercised for an equivalent number of common shares is as follows:

	Number of options	Weighted average exercise price	Weighted average remaining life in years
Balance, December 31, 2018	2,531,000	$0.22	6.09
Issued[i][ii][iii]	823,500	$0.34	7.63
Exercised[iii]	(44,070)	$0.11	N/A
Forfeited	(255,930)	N/A	N/A
Balance, September 30, 2019	3,054,500	$0.25	5.90
Exercisable, September 30, 2019	1,634,417	$0.22	6.08

[i] During the quarter ended March 31, 2019, the Company granted a total of 306,250 stock options. The options vest 1/3 on each annual anniversary for three years. The fair value of the stock options was estimated to be $46,087 using the Black-Scholes option pricing model. The stock compensation expensed in the period was $18,498 which relates to current and prior period grants.

[ii] During the quarter ended June 30, 2019, the Company granted a total of 302,250 stock options. The options vest 1/3 on each annual anniversary for three years. The fair value of the stock options was estimated to be $42,799 using the Black-Scholes option pricing model. The stock compensation expensed in the period was $25,901 which relates to current and prior period grants.

[iii] During the quarter ended September 30, 2019, the Company granted a total of 215,000 stock options. The options vest 1/3 on each annual anniversary for three years. The fair value of the stock options was estimated to be $35,526 using the Black-Scholes option pricing model. The stock compensation expensed was $22,678 which relates to current and prior period grants. The remaining expense will be recognized over the balance of the vesting periods. On July 1, 2019 pursuant to the exercise of 44,070 stock options, the Company issued 44,070 common shares at prices ranging from CDN$0.09 to CDN$0.19 with a weighted average exercise price of approximately CDN$0.15 (USD$0.11) per share for aggregate gross proceeds of CDN$6,519 (USD$5,005).

The fair value of the options granted during the nine months ended September 30, 2019 was determined using the Black-Scholes option pricing model using the following assumptions:

	Nine months ended September 30, 2019
Weighted average risk-free interest rate	1.72%
Weighted average expected volatility	89%
Expected life	8 years
Expected dividend yield	Nil
Weighted average share price at date of grant	$0.34
Weighted average exercise price at date of grant	$0.34
Forfeiture rate	47%

INTELLECTUAL PROPERTY

The Company capitalizes the cost of acquiring intellectual property. Carrying amounts are subject to impairment review annually and whenever there is an indication that an intangible asset may be impaired and where conditions exist, impairment is recognized. During the three and nine months ended September 30, 2019, the Company recognized $3,653 and $10,960 of amortization expense (three and nine months ended September 30, 2018 - $3,654 and $10,961). No impairment was recognized as of September 30, 2019 and December 31, 2018.

ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE

This MD&A was prepared as of November 21, 2019. The Company regularly discloses additional information through the filing of press releases, material change reports, financial statements, quarterly and annual reports on SEDAR at www.sedar.com, and on our website at www.auroraspine.us.

This report was approved on November 21, 2019.