

**AURORA SPINE CORPORATION**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**FOR THE NINE MONTHS ENDED SEPTEMBER 30, 2018**

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, 2018.

The MD&A should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2017 and the unaudited condensed interim consolidated financial statements for the nine months ended September 30, 2018 prepared in accordance with IFRS together with the accompanying notes. Additional information is available on SEDAR at [www.sedar.com](http://www.sedar.com), and on our website at [www.auroraspine.us](http://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, 2018.

#### **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.

#### **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. In late 2017, given lower realizable selling prices and margins on European sales, Aurora made the decision to focus its efforts on US sales.

Between January 15, 2014 and May 31, 2016, the Company completed various private placements raising aggregate gross proceeds of CDN\$16,137,504 (US\$14,423,929), issuing a total of 14,664,474 common shares.

On April 6, 2017, the Company completed a non-brokered private placement of common shares (the “April 2017 Offering”). Pursuant to the April 2017 Offering, the Company issued 1,670,000 common shares at a price of CDN\$0.18 (US\$0.1349) per share for aggregate gross proceeds of CDN\$300,600 (US\$225,209). Share issuance costs totalled CDN\$2,246 (US\$1,763). A director of the Company subscribed for an aggregate of 835,000 common shares for cash consideration of CDN\$150,300 (US\$112,605).

On October 18, 2017, the Company completed a non-brokered private placement of common shares (the “October 2017 Offering”). Under the Offering, the Company issued 1,250,000 common shares to a director of the Company at a price of CDN\$0.125 (US\$0.10) per share for aggregate gross proceeds of CDN\$156,250 (US\$125,000). Share issuance costs totalled CDN\$1,730 (US\$1,384).

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).

The net proceeds of the private placements have been used to fund operations and supply working capital.

## **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 three initial 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

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).

## **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 osseointegration 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.

## **Other Products**

Aurora Spine also carries many other third party products, including:

- SA-ALIF Cages
- Cervical and Lumbar Screws
- Cervical and Lumbar Plates

While these products typically yield a lower gross margin to Aurora Spine, they allow the Company to capture a larger number of surgeries and assist us in getting our proprietary products used in conjunction with these products in spinal surgeries.

## **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 current or proposed products, and that these 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.

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 legacy 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").

## **HIGHLIGHTS DURING THE PERIOD**

The quarters in 2018 have been the best quarters in the Company's history based on several financial metrics and reflect many of the changes that were implemented throughout the latter half of 2017.

### **Q3 2018**

- **Positive Cash Flow in Q3 2018** – Cash Flow as measured by EBITDAC was almost \$397k for the quarter. This is an improvement of almost \$497k from the comparable quarter last year and an improvement of more than \$98k from Q2 2018 and almost \$324k from Q1 2018 which was the Company's first positive cash flow quarter. EBITDAC is a non GAAP, non IFRS measure defined as Earnings before interest, taxes, depreciation, amortization and stock based compensation, adjusted by the gain on sale of property and equipment.
- **Gross Profit and Margin Rises** - Gross profit was more than \$1.3 million up over \$650k over the comparable quarter last year (an increase of 92% relative to sales increasing by 60%). The improvement was driven by an increase of sales under a more favorable product distribution model as well as efforts by our employees to lower manufacturing costs.
- **Operating Expenses Relative to Sales Lowered** - Continuing a trend started last year, total operating expense was \$1.2 million (45% as a percentage of sales), a reduction of over 17% relative to sales as compared to \$1 million (62% as a percentage of sales) from Q3 of last year.
- **Increased Revenues** – During the quarter, we generated almost \$2.7 million in revenues, the highest quarter's revenues in the Company's history, an increase of over \$999k or 60% as compared to Q3 2017.
- **Canadian Milestone** - On July 9, 2018 the company announced the 100th surgical implantation of its ZIP ULTRA® minimally invasive interspinous device in Canada performed at False Creek Healthcare Centre in Vancouver, BC by Navraj Heran, MD, the center's Chief of Neurosurgery.

### **Subsequent to Q3 2018**

- **ZIP European Patent Granted** – On October 25, 2018 the company announced the grant by the European Patent Office (the "EPO") of Aurora's first European patent related to the ZIP, minimally invasive spinal implant. The patent is titled "Dynamic and Non-Dynamic Interspinous Fusion Implant and Bone Growth Stimulation System", and covers Aurora's family of ZIP interspinous devices, including its ZIP Ultra, ZIP 51, ZIP LP and Dyna-ZIP among others.

## SELECTED BALANCE SHEET INFORMATION

The following table summarizes selected key financial data.

As at	September 30, 2018 \$	December 31, 2017 \$	December 31, 2016 \$
Cash	620,886	12,665	192,842
Trade receivables	1,805,525	811,491	1,228,553
Prepaid expenses and deposits	416,143	471,859	318,386
Inventory	2,168,331	2,462,509	2,996,940
Current assets	5,010,885	3,758,524	4,736,721
Intangible assets	253,286	264,247	210,966
Property and equipment	933,178	1,265,720	2,095,565
Total assets	6,197,349	5,288,491	7,043,252
Current liabilities	1,786,770	1,735,108	2,400,196
Long-term liabilities	1,987,500	1,902,000	1,172,963

## ANALYSIS OF FINANCIAL CONDITION AND FINANCIAL PERFORMANCE

Since inception, Aurora has focused on several initiatives to grow the 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.

In summary, management primarily focused on delivering a better cost structure for its business while growing its sales levels. Overall, management has focused on building and strengthening the foundation to support future growth. Several products have received FDA clearance, 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. In late 2017, given constrained selling prices and margins, Aurora made the decision to focus its efforts on US sales.

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

Quarters ended	September 30, 2018 \$	June 30, 2018 \$	March 31, 2018 \$	December 31, 2017 \$	September 30, 2017 \$	June 30, 2017 \$	March 31, 2017 \$	December 31, 2016 \$
Revenue	<b>2,675,947</b>	2,002,101	1,503,297	1,349,975	<b>1,676,738</b>	1,436,024	1,526,377	1,688,582
Cost of goods sold	<b>(1,319,018)</b>	(877,746)	(626,453)	(1,017,320)	<b>(970,801)</b>	(709,060)	(732,704)	(879,751)
Gross profit	<b>1,356,929</b>	1,124,355	876,844	332,655	<b>705,937</b>	726,964	793,673	808,831
Operating expenses	<b>1,217,196*</b>	1,083,310*	1,036,527*	1,230,740*	<b>1,034,319</b>	1,183,085	1,351,436*	1,503,071
EBITDAC**	<b>396,809</b>	298,579	72,977	(649,335)	<b>(100,022)</b>	(189,391)	(341,556)	(571,566)
Net income (loss)	<b>139,733</b>	41,045	(159,683)	(898,085)	<b>(328,382)</b>	(456,121)	(557,763)	(694,240)
Basic and diluted income (loss) per share	<b>0.01</b>	0.01	(0.01)	(0.02)	<b>(0.01)</b>	(0.01)	(0.02)	(0.02)

\* Adjusted by gain (loss) 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 gain on sale of property and equipment.

### **Comparative - Three Months Ended September 30, 2018 and 2017**

During the three months ended September 30, 2018, EBITDAC was \$396,809, compared to a negative EBITDAC of \$100,022 during the same period the previous year, an increase of \$497k or 497%. Additionally, the cost of goods sold margin has decreased resulting in a greater gross profit. Operating expenses increased by \$180k or 17% as compared to the same period the previous year.

During the three months ended September 30, 2018 we generated revenues in the amount of \$2,675,947 compared to \$1,676,738 during the same period the previous year, an increase of \$999k or 60%. The primary drivers of this increase were:

- (i) An approximately \$309k increase in sales of cervical screws and cages and \$514k increase in sales of lumbar screws and cages; and
- (ii) A net increase of \$176k overall of ZIP and various other products.

During the three months ended September 30, 2018 cost of sales was \$1,319,018 and gross profit was \$1,356,929 (51% of revenues). During the three months ended September 30, 2017 cost of sales was \$970,801 and gross profit was \$705,937 (42% of revenues). Gross margin as a percentage of revenue increased by 9% and reflects management's success in lowering the Company's manufacturing costs on most of its Ti-PEEK products, offset primarily by a less favorable product mix and additional shipping costs. In prior years shipping costs were recorded in general and administrative expenses.

Operating expenses (adjusted by a gain on sale of property and equipment) during the current quarter were \$1,217,196 compared to \$1,034,319 during the same period the previous year, an increase of \$183k or 18%. During the current quarter, the Company reported a loss on sale of property and equipment of \$2,566 (2017 - \$Nil) which was reported as an addition to the operating expenses in the table above.

Executive compensation during the quarter was \$117,660 compared to \$135,750 during the same period the previous year. The decrease in executive compensation was due to a reclassification of transportation allowances to general and administrative expenses which were previously recorded in executive compensation.

Salaries expense during the quarter was \$389,029 compared to \$305,131 during the same period the previous year. The increase reflects an increase of regulatory and warehouse personnel, as well as an increase in bonus commissions due to quarterly quotas achieved by sales personnel.

Consulting fees incurred during the quarter were \$93,389 compared to \$54,595 during the same period the previous year. These fees reflect amounts paid to independent sales consultants and physicians consulting on products. The increase is due to the addition of various consulting agreements.

General and administrative expenses were \$189,799 during the current quarter compared to \$143,414 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 is primarily due to an increase of approximately \$69k of meals and travel costs, including the transportation allowances which were previously recorded in executive compensation mentioned above. This change reflects broader sales initiatives in the quarter. General and administrative expenses were offset by a reduction of approximately \$28k reflecting the reclassification of shipping costs to cost of goods sold in the current quarter.

Research and development expense during the quarter was \$5,510 compared to \$1,376 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.

Marketing costs during the quarter were \$28,718 compared to \$1,882 during the same period the previous year. Marketing expense during the current quarter primarily relates to trade show attendance, advertising, and promotion. The majority of the increase is due to the timing of costs incurred. This year, a large annual tradeshow occurred during the quarter compared to the same event which took place during the fourth quarter of last year. These timing costs make up \$17k of the increase. The remainder of the increase was due to increased tradeshow attendance and booth costs.

Occupancy costs during the quarter were \$24,041 compared to \$17,276 during the same period the previous year. The increase is due the lease signed on April 14, 2017 which reduced the monthly base rent from \$28,718 for 17,288 square feet to \$7,650 for 5,464 square feet, which required an adjustment to occupancy costs during the third quarter of 2017 to account for the amounts of deferred rent that had been over-expensed on a straight line basis during the previous lease.

Professional fees during the quarter were \$9,983 compared to \$57,313 during the same period the previous year. Professional fees include costs related to legal fees, regulatory audits and financial audits. The decrease is primarily due to a reduction of general and patent legal fees as well as the timing of tax return preparation not performed until October of this year versus September of last year.

Insurance expense increased during the quarter to \$101,991 compared to \$89,222 during the same period the previous year. Insurance expense includes health insurance for the employees and premium costs for product insurance and general liability insurance. The increase is primarily due to increased employee health insurance costs in 2018.

Interest expense during the quarter was \$36,000 compared to \$29,038 during the same period the previous year. The expense relates primarily to the proceeds of the promissory note received in July 2016. The promissory note bears an interest rate of 9% per annum. Interest expense has increased as it was under-accrued during the same period the previous year. It was subsequently corrected during the fourth quarter of 2017.

#### **Cash Flows – Three Months Ended September 30, 2018 and 2017**

Cash flows received from operating activities during the three months ended September 30, 2018 were \$407,288, primarily consisting of the operating income increased 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 increases in trade and other receivables, prepaid expenses and deposits and trade and other payables, and a decrease in inventory.

Cash flows used by operating activities during the three months ended September 30, 2017 were \$281,137, primarily consisting of the operating loss reduced by depreciation, amortization, non-cash stock based compensation and loan interest adjusted for the changes in working capital components during the period which include increases in trade and other receivables and prepaid expenses and deposits and decreases in inventory and trade and other payables.

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 received from financing activities during the three months ended September 30, 2017 were \$342,500. On July 12, 2017 the Company received a loan in the aggregate principal amount of US\$350,000 from a director of the Company. The Loan is evidenced by a promissory note bearing interest at 9% per annum. This is offset by payments made on a shareholder loan totaling \$7,500.

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

Cash flows received from investing activities during the three months ended September 30, 2017 were \$19,021 resulting from adjustments to property and equipment.

## **Comparative - Nine months Ended September 30, 2018 and 2017**

During the nine months ended September 30, 2018, EBITDAC was \$768,365, an increase of \$1,399,334 over the comparable period the previous year. The Company's sales have increased by \$1.5 million, or 33% as compared to the same period the previous year. Additionally, the cost of goods sold as a percentage of sales has decreased resulting in a greater gross profit and management has continued to monitor these costs relative to sales. Operating expenses decreased by \$286,014 or 8% as compared to the same period the previous year.

During the nine months ended September 30, 2018 we generated revenues in the amount of \$6,181,345 compared to \$4,639,139 during the same period the previous year, an increase of \$1.5 million, or 33%. The primary drivers of this increase were:

- (i) An approximately \$774k increase in sales of cervical screws and cages and \$519k increase in sales of lumber screws and cages; and
- (ii) an overall net increase of \$249k in sales of ZIP and various other products.

During the nine months ended September 30, 2018 cost of sales was \$2,823,217 and gross profit was \$3,358,128 (54% of revenues). During the nine months ended September 30, 2017 cost of sales was \$2,412,565 and gross profit was \$2,226,574 (48% of revenues). The gross margin percentage increased by 6% and reflects management's success in lowering the Company's manufacturing costs on most of its Ti-PEEK products as well as a decrease in external commissions (those payable to independent distributors) due to a favorable shift in the product distribution model and a shift in product mix. This was offset by additional shipping costs. In prior years shipping costs were recorded in general and administrative expenses.

Operating expenses (adjusted by a gain on sale of property and equipment) during the current period were \$3,337,033 compared to \$3,568,840 during the same period the previous year. During the current period, the Company reported a gain on sale of property and equipment of \$8,356 (2017 - \$62,563) which was reported as a reduction of the operating expenses in the table above. Excluding this reduction, operating expenses were \$3,345,389 (2017 - \$3,631,403), 8% lower compared to the same period the previous year.

The total of executive compensation and salaries expense during the period was \$1,332,436 compared to \$1,421,278 during the same period the previous year.

The decrease in salaries expense reflects a decrease of engineering, regulatory and sales personnel, offset by the replacement of warehouse personnel and increased internal commissions (those paid to employee sales representatives) related to increased sales.

Consulting fees incurred during the period were \$218,811 compared to \$204,757 during the same period the previous year. These fees reflect amounts paid to independent sales consultants and physicians consulting on products. The increase is due to the addition of various consulting agreements, offset by the reduction of independent sales consultants and consultants providing administrative services.

General and administrative expenses increased slightly and were \$473,918 during the current period compared to \$415,066 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 is due to an increase of approximately \$95k of meals and travel costs, including the transportation allowances which were previously recorded in executive compensation mentioned above, as well as an increase of \$14k in office and maintenance costs. This change reflects broader sales initiatives in the period. General and administrative expenses were offset by a reduction of approximately \$50k reflecting the reclassification of shipping costs to cost of goods sold in the current quarter.

Research and development expense during the period was \$23,043 compared to \$11,933 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.

Marketing costs during the period were \$39,285 compared to \$14,443 during the same period the previous year. Marketing expense during the current period primarily relates to advertising, trade show attendance and promotion.

The majority of the increase is due to the timing of costs incurred this year versus last year. This year, a large annual tradeshow occurred during the period compared to the same event which took place during the fourth quarter of last year. These timing costs make up \$17k of the increase. The remainder of the increase was due to increased tradeshow attendance and booth costs.

Occupancy costs during the period were \$66,814 compared to \$99,887 during the same period the previous year. The decrease is a direct result of the lease signed on April 14, 2017 which reduced the monthly base rent from \$28,718 for 17,288 square feet to \$7,650 for 5,464 square feet.

Professional fees during the period were \$133,372 compared to \$411,307 during the same period the previous year. Professional fees include costs related to legal fees, regulatory audits and financial audits. The decrease is primarily due to professional fees relating to certain legal disputes which were settled in 2017 and a reduction of finance consultants.

Insurance expense during the period was \$302,084 compared to \$278,872 during the same period the previous year. Insurance expense includes health insurance for the employees and premium costs for product insurance and general liability insurance. The increase was due to an adjustment billed as the result of a prior year audit and increased employee health insurance costs.

Interest expense during the period was \$110,170 compared to \$85,066 during the same period the previous year. The expense relates primarily to the proceeds of the promissory note received in July 2016. The promissory note bears an interest rate of 9% per annum. Interest expense has increased as the amount of the outstanding loan has increased.

#### **Cash Flows – Nine months Ended September 30, 2018 and 2017**

Cash flows received from operating activities during the nine months ended September 30, 2018 were \$173,717, primarily consisting of the operating loss reduced by depreciation, amortization, non-cash stock based compensation and loan interest adjusted for a gain 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 and decreases in prepaid expenses and deposits and inventory.

Cash flows used by operating activities during the nine months ended September 30, 2017 were \$806,941, primarily consisting of the operating loss reduced by depreciation, amortization, non-cash stock based compensation and loan interest adjusted for a gain on sale of property and equipment and the changes in working capital components during the period which include decreases in trade and other receivables, prepaid expenses and deposits, inventory and trade and other payables.

Cash flows received from financing activities during the nine months ended September 30, 2018 were \$694,433, resulting in part 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 received from financing activities during the nine months ended September 30, 2017 were \$813,446. On April 6, 2017, the Company completed a non-brokered private placement of common shares whereby the Company issued 1,670,000 common shares at a price of CDN\$0.18 (US\$0.1349) per share for net proceeds after share issuance costs of CDN\$298,354 (US\$223,446). The Company also received US\$600,000 from a director and increased its existing Note receivable to US\$1,600,000. All of the existing terms of the original loan remained unchanged. This is offset by repayment of amounts due to related parties of \$10,000 during the period.

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 property and equipment.

Cash flows used in investing activities during the nine months ended September 30, 2017 were \$11,114 resulting from the additions to property and equipment and intangible assets offset by proceeds from the sale of property and equipment.

## LIQUIDITY AND CAPITAL RESOURCES

Our objective is to maintain sufficient liquid resources to meet operational requirements. As at September 30, 2018, we had cash of \$620,886. Working capital as at September 30, 2018 aggregated \$3,224,115.

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 may be needed for continued product development and marketing as we continue our commercialization efforts.

In periods where we are unable to generate significant revenue and achieve profitable operations, we will continue to rely on equity and debt financing to fund our cash requirements. We have incurred operating losses since inception. 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, or if the capital is available, that it will be on terms acceptable to us.

## COMMITMENTS, CONTINGENCIES AND OFF-BALANCE SHEET ARRANGEMENTS

### Lease Commitment

On April 14, 2017 the Company signed a new lease with its landlord which terminated the original lease effective May 31, 2017. The new lease terms were effective June 1, 2017 and terminate on March 31, 2023. The new lease reduces the monthly base rent from \$28,718 for 17,288 square feet to \$7,650 for 5,464 square feet, plus Common Area Maintenance (“CAM”) charges and a termination fee of \$5,000 for the first 22 months. The monthly payment increases by 3% each year beginning at month 13 of the lease.

As at September 30, 2018, the minimum lease commitments under the non-cancellable operating lease are as follows:

	September 30, 2018
Less than a year	\$125,494
Between 1 and 5 years	374,963
Total	\$500,457

### 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 Body 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 entered into an asset agreement 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 present chief executive officer, the present chief financial officer, the former chief financial officer during his time in the position, the chief technology officer and the chief legal and 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, 2018, trade payable balances to related parties totaled \$Nil (2017 - \$22,500) and there is an outstanding loan payable to a director of the Company of \$110,000 (2017 - \$140,000) which is due on or before May 2022 and is secured by certain instrument sets.

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

	Nine months ended September 30, 2018	Nine months ended September 30, 2017
Salary	\$ 376,051	\$ 415,158
Stock based compensation	17,750	39,378
Total	\$ 393,801	\$ 454,536

On February 6, 2018, the Company completed a private placement of common shares and 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). Share issuance costs totaled 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). The net proceeds of the Offering has been used for general working capital purposes and to repay a USD\$125,000 loan advanced by a director on January 11, 2018 (see below).

As at September 30, 2018, there is an outstanding secured promissory note (the "Note") to a director of the Company in the amount of \$1,600,000 (2017 - \$1,600,000). The Note bears an interest rate of 9% per annum and is due on or before June 2021. As at September 30, 2018, the accrued interest related to the loan is \$277,500 (2017 - \$133,500). The Note is secured by the tangible and intangible assets of the Company. The Company may prepay the principal amount and interest thereon, in whole or in part, at any time without penalty.

On January 11, 2018, the same director of the Company, made a short term demand loan to the Company in the amount of US\$125,000, which was repaid on March 27, 2018 from the proceeds of the February 2018 Offering.

## 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 nine months ended September 30, 2018, the Company recorded \$10,961 (nine months ended September 30, 2017 - \$24,386) of amortization expense. As at September 30, 2018 and December 31, 2017 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.

## **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.

## **Recent Accounting Pronouncements**

Certain pronouncements have been issued by the IASB or IFRIC (IFRS Interpretations Committee) that will be effective for the current and future accounting periods. Many of these are not applicable to the Company and so are not listed below. The following is a brief summary of the new standards:

### **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. Our financial performance and disclosure are not materially affected by the application of the standard.

### **IFRS 15 Revenue from Contracts with Customers**

IFRS 15 - Revenue from Contracts with Customers – This standard replaced IAS 18 which covers revenue arising from the sale of goods and the rendering of services and IAS 11 which covers construction contracts.

The new standard is based on the principle that revenue is recognized when control of a good or service transfers to a customer. The standard permits either a full retrospective or a modified retrospective approach for the adoption. The Company has adopted the new standard as of January 1, 2018. Our financial performance and disclosure are not materially affected by the application of the standard.

### **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 will be 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. The accounting requirements from the perspective of the lessor remain largely in line with previous IAS 17 requirements. The effective date for IFRS 16 is January 1, 2019. The Company is in the process of assessing the impact of the adoption of this standard on its financial statements.

## **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).

The following is a summary of significant categories of financial instruments outstanding at September 30, 2018:

Cash	Fair value through profit or loss
Trade and other receivables	Loans and receivables
Trade and other payables	Financial liabilities
Due to related parties	Financial liabilities

Subsequent measurement and treatment of any gain or loss is recorded as follows:

- 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 net income for the period; and
- 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 our financial liabilities, including trade and other payables. Loans and borrowings are classified as current liabilities unless we have 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, 2018	December 31, 2017
Current	\$ 1,258,846	\$ 470,943
Past due 1-30 days	447,419	243,147
Past due 31-60 days	94,162	25,410
Over 60 days	5,098	71,991
Closing Balance (maximum credit risk)	\$ 1,805,525	\$ 811,491

### **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, 2018 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 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, 2018 was \$3,174,115 (December 31, 2017 - \$2,023,416). 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, 2018 was \$2,423,079 (December 31, 2017 - \$1,651,383). There is no change to the Company's capital management policy for the nine months ended September 30, 2018.

## **OUTSTANDING SHARE DATA**

### **[a] Share capital**

The number of authorized common shares is unlimited.

The continuity of share capital is as follows:

#### **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:

	Common Shares	
	#	\$
Balance, December 31, 2017	36,168,674	19,706,040
Private placement <sup>[i]</sup>	9,265,000	741,200
Share issuance costs <sup>[i]</sup>	–	(24,267)
Balance, September 30, 2018	45,433,674	20,422,973

[i] On February 6, 2018, the Company completed a private placement of common shares and 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). Share issuance costs totaled 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).

## [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, 2018, 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, 2017	2,387,250	\$0.44	7.04
Issued <sup>(i)</sup> <sup>(iii)</sup> <sup>(iii)</sup>	236,250	\$0.13	7.63
Forfeited	(305,832)	N/A	N/A
Balance, September 30, 2018	2,317,668	\$0.21	6.06
Exercisable, September 30, 2018	1,109,085	\$0.24	7.08

- [i] During the quarter ended March 31, 2018, the Company granted a total of 86,250 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 \$4,704 using the Black-Scholes option pricing model. The stock compensation expensed during the three months ended March 31, 2018 was \$13,816 which relates to current and prior period grants. The remaining expense will be recognized over the balance of the vesting periods.
- [ii] During the quarter ended June 30, 2018, the Company granted a total of 106,250 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 \$4,243 using the Black-Scholes option pricing model. The stock compensation expensed during the three months ended September 30, 2018 was \$8,566 which relates to current and prior period grants. The remaining expense will be recognized over the balance of the vesting periods.
- [iii] During the quarter ended September 30, 2018, the Company granted a total of 43,750 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 \$2,498 using the Black-Scholes option pricing model. The stock compensation expensed during the three months ended September 30, 2018 was \$11,286 which relates to current and prior period grants. The remaining expense will be recognized over the balance of the vesting periods.

The fair value of the options granted during the six month period ended September 30, 2018 was determined using the Black-Scholes option pricing model using the following assumptions:

	September 30, 2018
Risk-free interest rate	2.22%
Expected volatility	93%
Expected life	8 years
Expected dividend yield	Nil
Share price at date of grant	\$0.13
Exercise price at date of grant	\$0.13
Forfeiture rate	60%

### **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 nine months ended September 30, 2018, the Company recognized \$10,961 of amortization expense (nine months ended September 30, 2017 - \$24,386). No impairment was recognized as of September 30, 2018 and December 31, 2017.

### **ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE**

This MD&A was prepared as of November 21, 2018. 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](http://www.sedar.com), and on our website at [www.auroraspine.us](http://www.auroraspine.us).

This report was approved on November 21, 2018.