

**AURORA SPINE CORPORATION**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2017**

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, 2017.

The MD&A should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2016 and the unaudited condensed interim consolidated financial statements for the three and nine months ended September 30, 2017 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 27, 2017.

#### **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.

Between January 15, 2014 and October 15, 2015, the Company completed various private placements raising aggregate gross proceeds of CDN\$15,632,504 (US\$14,029,750), issuing a total of 12,139,474 common shares.

On May 31, 2016, the Company completed a private placement of common shares (the “May 2016 Offering”). Pursuant to the May 2016 Offering, the Company issued 2,525,000 common shares at a price of CDN\$0.20 (US\$0.153) per share for gross proceeds of CDN\$505,000 (US\$394,179). In connection with this Offering, the Company paid finder’s fees of CDN\$9,600 (US\$7,354). The net proceeds to the Company are CDN\$495,400 (US\$386,825).

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\$ 112,642).

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).

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

## **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
- PEEK (polyether ether ketone) interbody cages
- Stand-alone ("SA") Cervical and Lumbar devices

### **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 and plan to offer a mid-spine ISP device as well. In the future, we may introduce a thoracic ISP device and a multi-segment ISP device that will be designed to allow surgeons to perform corrective procedures (e.g., for scoliosis) without pedicle fixation.

### **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 intends to use the TiNano™ technology in all of its interbody fusion devices, including configurations for Anterior Cervical (“ACIF”), Anterior Lumbar (“ALIF”), Posterior Lumbar (“PLIF”), Transforaminal Lumbar (“TLIF”) and Direct Lateral (“DLIF”) interbody spacers.

### **Stand-Alone ALIF Cages**

In 2016 Aurora Spine began 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.

## HIGHLIGHTS DURING THE PERIOD

- 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\$ 112,642).
- On April 12, 2017, the Company announced the issuance of its United States Patent entitled, “Polyaxial Interspinous Fusion Implant and Bone Growth Stimulation System”. In addition to Aurora’s implant family of ZIP® ISPs, including its ZIP Ultra®, ZIP 51™, ZIP LP™, Dyna-ZIP™ and ZIP-Flex, this patent application covers the company’s first polyaxial implant design.

The polyaxial ZIP® Interspinous patent issuance is another milestone in Aurora Spine’s history. Our latest patent was issued for our newest interspinous device design that permits for full polyaxial maneuverability of the implant components in difficult situations during minimally invasive fusion cases. This newly issued patent features our patented ONE-STEP™ locking mechanism that eliminates the use of a set screw in Aurora’s Screwless Procedure™ surgeries.

- On April 14, 2017 the Company signed a new lease with its landlord which terminates the original lease effective May 31, 2017. The new lease terms are 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. Rent expense is recorded on a straight line basis. The \$5,000 per month termination fee reduces the Company’s existing deferred rent liability. The monthly payment increases by 3% each year beginning at month 25 of the lease.
- On May 31, 2017, the Company announced that it has selected its proprietary implant locking technology covered by United States Patent entitled "POLYAXIAL INTERSPINOUS FUSION IMPLANT AND BONE GROWTH STIMULATION SYSTEM" for out-licensing opportunities for medical and industrial applications.

The Company is now offering its new Polyaxial ZIP® Interspinous device patent for out-licensing or private label opportunities. The combination of the proven ONE-STEP™ locking mechanism, with no setscrew, and the polyaxial feature may be a unique opportunity in new product development for orthopedic and other medical and industrial manufacturers. The patented features offer new design directions for hardware connections that do not rely on conventional threads and screws thus preventing hardware loosening related problems.

- On July 12, 2017, the Company received a loan in the aggregate principal amount of US\$350,000 from an insider of the Company. The Loan is evidenced by a promissory note (the "Note") bearing interest at 9% per annum. The principal amount together with interest thereon is due on June 29, 2021. The Company may prepay the principal amount and interest thereon, in whole or in part, at any time without penalty. The Company's wholly owned subsidiary, Aurora Spine, Inc., has entered into certain ancillary agreements to guarantee and secure the obligations of the Company under the Note. The Company's wholly owned subsidiary, Aurora Spine, Inc., is party to certain ancillary agreements to guarantee and secure the obligations of the Company under the Note. As a result of this new advance, the total principal amount owing by the Company to the insider, following the partial repayment of prior loan advances, is US\$1.6 million. The insider may at any time on providing 366 days' prior written notice to the Company demand full repayment of the total amount owing by the Company to the insider. The Company intends to use the

remaining loan proceeds after having repaid the short term demand loan of US \$200,000 for general corporate purposes.

## **HIGHLIGHTS SUBSEQUENT TO PERIOD END**

- 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 totaled CDN\$1,730 (US\$1,384). The proceeds of the October 2017 Offering will be used for general working capital purposes.
- The Company participated at the 2017 North American Spine Society Annual Meeting held in October 2017 at the Orange County Convention Center in Orlando, Florida. The North American Spine Society is a global multidisciplinary medical society that utilizes education, research and advocacy to foster the highest quality, ethical, value and evidence based spine care.

Aurora Spine showcased its Screwless Procedure™ and highlighted its latest fusion technologies, including the patented ZIP® MIS Interspinous fusion systems. The Screwless Procedure product portfolio consists of the innovative ZIP® ISP Product Line, TiNano® Interbody cages, Biologics, and Surgical Tools. All Aurora Spine spinal implants are pre-packaged sterile to provide the best products possible for both surgeons and patients alike.

## **COMPANY, BUSINESS AND MARKET**

The Company has commenced marketing and sales of certain of its products that have received regulatory clearance for sale. In the short-term, the Company has been successful in raising funds to meet its operating expenses and our goal continues to be that over the next several quarters sales revenue will grow such that the Company can begin to be cash flow positive.

The Company filed an Initial Public Offering Prospectus on August 27, 2013 with securities regulatory authorities in the provinces of British Columbia, Alberta and Ontario which was subsequently completed in September 2013 offering 5,150,000 common shares at a price of US\$0.70 per share, for gross proceeds of US\$3,605,000. Trading began on September 10, 2013.

Since its Initial Public Offering, the Company has completed private placements, pursuant to which the Company has issued 17,584,474 common shares for aggregate gross proceeds of CDN\$16,594,354 (US\$14,774,123).

### **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.

We believe that all of our products that are currently in development have predicate devices already approved or cleared by the FDA, and that as a result we will be able to take advantage of the more streamlined Premarket Notification clearance process.

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.

## **The Spinal Implant Market**

### **The Prevalence of Back Problems**

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. According to Global Business Intelligence Research's ("GBI") report titled "Spinal Surgery Devices Market to 2017 - Motion Preserving Spinal Non-Fusion Procedures to Drive Long Term Growth" (the "GBI Report"), revenues in the global market for spine implants and related biologics are expected to reach \$12.6 billion in 2017 at a compound annual growth rate ("CAGR") of 10%, primarily driven by increasing preference for minimally invasive surgery ("MIS") spinal fusion procedures and the growing aging population around the world. 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.

The United States is the largest regional market for spinal surgery devices. Management believes the U.S. market constitutes approximately 69% of the global market. According to the GBI Report, U.S. spinal surgery device revenues were approximately \$4.6 billion in 2010, and are expected to reach \$9.2 billion by 2017, with a CAGR of 10%. As with the global market, major growth factors for the spinal surgery devices market in the U.S. are the increasing number of spinal disorders attributed to a growing aging population, and the growing use of MIS spinal fusion devices, despite certain reimbursement challenges.

### **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.

### **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 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 functional currency of the Company’s US subsidiary Aurora, is the USD and its European subsidiary Aurora Spine Europe Ltd., is the Euro.

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, 2017 \$	December 31, 2016 \$
Cash	188,233	192,842
Trade receivables	1,086,162	1,228,553
Prepaid expenses and deposits	296,442	318,386
Inventory	2,808,006	2,996,940
Current assets	4,378,843	4,736,721
Intangible assets	267,901	210,966
Property and equipment	1,479,552	2,095,565
Total assets	6,126,296	7,043,252
Current liabilities	1,978,984	2,400,196
Long-term liabilities	1,740,000	1,172,963
Common share equity	19,582,424	19,358,978

## 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.

The Company has a contract with one of the nation’s largest third-party providers of supply chain management and outsourced procurement capabilities. This relationship provides a path of accelerated approval for all of the Company’s products with the healthcare institutions serviced by this third-party provider. The Company has had an increase in sales due to this contract.

In summary, management has focused on growing the business while building and strengthening the foundation to support the growth. Several products have received FDA clearance, inventory is on-hand to support future sales and hospital approvals have increased. Management is also monitoring costs relative to sales.

## 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, 2017 \$	June 30, 2017 \$	March 31, 2017 \$	December 31, 2016 \$	September 30, 2016 \$	June 30, 2016 \$	March 31, 2016 \$	December 31, 2015 \$	September 30, 2015 \$
Revenue	<b>1,676,738</b>	1,436,024	1,526,377	1,688,582	<b>1,625,676</b>	1,893,092	1,549,125	1,495,319	1,173,017
Cost of goods sold	<b>(970,801)</b>	(709,060)	(732,704)	(879,751)	<b>(826,949)</b>	(921,836)	(744,094)	(731,165)	(429,875)
Gross profit	<b>705,937</b>	726,964	793,673	808,831	<b>798,727</b>	971,256	805,031	764,154	743,142
Operating expenses	<b>1,034,319</b>	1,183,085	1,351,436**	1,503,071	<b>1,321,734</b>	1,127,047	1,111,244	1,341,007*	1,358,264
Net income (loss)	<b>(328,382)</b>	(456,121)	(557,763)	(694,240)	<b>(523,007)</b>	(155,791)	(306,213)	(576,853)	(615,122)
Basic and diluted income (loss) per share	<b>(0.01)</b>	(0.01)	(0.02)	(0.05)	<b>(0.02)</b>	(0.01)	(0.01)	(0.02)	(0.02)

\* Adjusted by gain on extinguishment of debt of \$205,316 (see Note 11 of financial statements for the year ended December 31, 2015).

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

Since the Company is 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.

Sales for the Company are affected by seasonality. During the summer months the number of surgeries performed is typically less than other months, whereas surgeries tend to increase towards the end of the year.

### Comparative - Three Months Ended September 30, 2017 and 2016

During the three months ended September 30, 2017 we generated revenues in the amount of \$1,676,738 compared to \$1,625,676 during the same period the previous year, an increase of \$51,062 or 3%. The primary drivers of this increase were:

- (i) An increase of approximately \$434K in the sales of lumbar cages and screws, offset by a decrease of \$140K in the sales of cervical cages; and
- (ii) A reduction of \$243K in ZIP sales attributable to a change in the distribution model and pricing with one of the Company's key, high volume surgeons. The Company expects that the shortfall in sales from this situation will be fully replaced by year end.

During the three months ended September 30, 2017 cost of sales was \$970,801 and gross profit was \$705,937 (42% of revenues). During the three months ended September 30, 2016 cost of sales was \$826,949 and gross profit was \$798,727 (49% of revenues). The gross margin percentage has decreased by 7% as a result of an increase in sales of 3rd party products which have a higher cost of sales percentage.

Operating expenses during the current quarter were \$1,034,319 compared to \$1,321,734 during the same period the previous year.

The total of executive compensation and salaries expense during the quarter was \$440,881 compared to \$490,623 during the same period the previous year. The decrease in executive compensation and salaries expense reflects executive personnel salary reductions and a decrease of warehouse and regulatory personnel.

Consulting fees incurred during the quarter were \$54,595 compared to \$50,462 during the same period the previous year. These fees reflect amounts paid to independent sales consultants and physicians consulting on products.

General and administrative expenses were \$143,414 during the current quarter compared to \$171,425 during the same period the previous year. The decrease relates primarily to a reduction of shipping costs and travel costs. 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 foreign exchange gain or loss. Management is continuing to monitor these costs relative to sales.

Research and development expense during the quarter was \$1,376 compared to \$10,730 during the same period the previous year. Research and development expenses primarily relate to the development of the enhancements to our existing product lines.

Marketing costs during the quarter were \$1,882 compared to \$14,176 during the same period the previous year. Marketing expense primarily relates to advertising, web site development and promotion and initial costs for upcoming tradeshows. The decrease resulted primarily from a decline in outside marketing services costs.

Occupancy costs during the current quarter were \$17,276 compared to \$87,072 during the same period the previous year. 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 25 of the lease. Due to these changes, in the current quarter there was an adjustment to the existing deferred rent liability booked against rent expense of \$5,674, reducing total rent for the quarter.

Insurance expense during the quarter was \$89,222 compared to \$73,934 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 amount increased due to an increase in premium costs related primarily to Director and Officer liability insurance.

Interest expense during the quarter was \$29,038 compared to \$22,570 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. The amount has increased as the amount of the loan has increased.

#### **Cash Flows – Three Months Ended September 30, 2017 and 2016**

Cash flows used in operating activities during the three months ended September 30, 2017 were \$300,674, primarily consisting of the operating loss reduced by depreciation and non-cash stock based compensation adjusted for the changes in working capital components during the period which include an increase in trade receivables and prepaid expenses and deposits and decreases in inventory and trade and other payables.

Cash flows used in operating activities during the three months ended September 30, 2016 were \$449,415, primarily consisting of the operating loss reduced by depreciation and non-cash stock based compensation and adjusted for the changes in working capital components during the period. The working capital components included decreases in prepaid expenses, inventory, trade and other receivables and trade and other payables (amounting to over \$463,000).

Cash flows received from financing activities during the three months ended September 30, 2017 were \$362,037. 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. The difference reflects an amendment to a loan agreement made between the Company and another insider in December 2015. Pursuant to the amendment which occurred on June 27, 2017, the loan increased from \$127,963 to \$150,000 and monthly payments were reduced from \$5,000 to \$2,500 payable over 60 months. The \$12,063 reflects the increase in the principal amount owing offset by payments made during the period.

Cash flows received from financing activities during the three months ended September 30, 2016 were \$1,007,500, resulting from the loan received on July 5, 2016 from a director of the Company.

Cash flows received in investing activities during the three months ended September 30, 2017 and September 30, 2016, were \$19,021 and \$72,466, respectively, resulting from changes during the quarter in the balance of trays and instruments required for surgeries.

### **Comparative - Nine Months Ended September 30, 2017 and 2016**

During the nine months ended September 30, 2017 we generated revenues in the amount of \$4,639,139 compared to \$5,067,893 during the same period the previous year, a decrease of 8.5%. The primary drivers of this reduction were:

- (i) A reduction of approximately \$419k in Biologics sales. Such sales were through predominantly one hospital where a change of control occurred and Aurora was required to amend payment terms. We do not see Biologics sales returning to previous levels; and
- (ii) A reduction of \$428k in ZIP sales attributable to a change in the distribution model and pricing with one of the Company's key, high volume surgeons.
- (iii) A reduction of \$393k in cervical plates and cages, offset by increases of \$811k in sales of lumbar cages, screws and other.

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). During the nine months ended September 30, 2016, cost of sales was \$2,492,879 and gross profit was \$2,575,014 (51% of revenues). The gross margin percentage has decreased by 3% as a result of an increase in sales of 3rd party products which have a higher cost of sales percentage.

Operating expenses during the current period were \$3,631,403 compared to \$3,560,026 during the same period the previous year. There were increases in executive compensation and salaries, consulting fees, professional fees, insurance, depreciation and amortization and interest expense. These were offset by decreases in general and administrative expense, research and development, marketing expense, occupancy costs and stock based compensation. During the current period, the Company reported a gain on sale of property and equipment of \$62,563.

The total of executive compensation and salaries expense during the current period was \$1,421,278 compared to \$1,322,932 during the same period the previous year. The increase is primarily due to a conversion of sales staff from consultants to employees and the replacement of outsourced financial professionals with finance employees, offset by executive personnel salary reductions and a decrease of warehouse and regulatory personnel.

Consulting fees incurred during the current period were \$204,757 compared to \$196,976 during the same period the previous year. These fees reflect amounts paid to independent sales consultants and physicians consulting on products.

General and administrative expenses were \$415,066 during the current period compared to \$512,883 during the same period the previous year. The decrease relates primarily to a reduction of shipping costs and travel costs. 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. Management is continuing to monitor these costs relative to sales.

Research and development expense during the current period was \$11,933 compared to \$25,171 during the same period the previous year. Research and development expenses primarily relate to the development of the enhancements to our existing product lines.

Marketing costs during the current period were \$14,443 compared to \$26,247 during the same period the previous year. Marketing expense primarily relates to advertising, web site development and promotion and initial costs for upcoming tradeshows.

Occupancy costs during the current period were \$99,887 compared to \$194,035 during the same period the previous year. As discussed above, 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 25 of the lease.

Insurance expense during the current period was \$278,872 compared to \$212,499 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 amount increased due to an increase in premium costs related primarily to Director and Officer liability insurance.

Interest expense during the period was \$85,066 compared to \$24,059 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. The amount has increased as the amount of the loan has increased.

### **Cash Flows – Nine Months Ended September 30, 2017 and 2016**

Cash flows used in operating activities during the nine months ended September 30, 2017 were \$783,978, primarily consisting of the operating loss reduced by depreciation and non-cash stock based compensation 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 used in operating activities during the nine months ended September 30, 2016 were \$1,342,300, primarily consisting of the operating loss reduced by depreciation and non-cash stock based compensation adjusted for the changes in working capital components during the period which include an increase in trade and other receivables and decreases in prepaid expenses and deposits, inventory and trade and other payables.

Cash flows received from financing activities during the nine months ended September 30, 2017 were \$790,483, resulting in part from receipt of US\$250,000 private placement funds, offset by issuance costs. The Company also received US\$600,000 from a director of the Company which increased its existing Note payable to an aggregate principal amount of US\$1,600,000. Additionally, a decrease in due to related parties of \$32,963 is due to an amendment to a December 2015 loan agreement made between the Company and another director offset by payments made during the period.

Cash flows received from financing activities during the nine months ended September 30, 2016 were \$1,394,325, resulting in part, from the receipt of US\$394,179 private placement funds offset by share issuance costs. Additionally, the Company received a loan on July 5, 2016 of US\$1,000,000 from a director of the Company.

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. Cash flows from investing activities during the nine months ended September 30, 2016 were \$116,571 resulting from the change in balance of trays and instruments required for surgeries.

### **SEGMENT INFORMATION**

The Company operates as a holding company to a single operating entity reported as a wholly-owned subsidiary focused on the development and sale of innovative, minimally invasive, interspinous fusion systems and devices. The Company characterizes business principally in the U.S. and outside the US (“OUS”).

Revenues by geographic region are detailed as follows:

	Nine months ended September 30, 2017	Nine months ended September 30, 2016
United States	\$4,375,869	\$4,838,724

OUS	263,270	229,169
Total Revenues	\$4,639,139	\$5,067,893

The U.S. sales during the current period represent approximately 94% of total sales and Aurora continues to focus its efforts on the U.S. market.

## LIQUIDITY AND CAPITAL RESOURCES

Our objective is to maintain sufficient liquid resources to meet operational requirements. As at September 30, 2017, we had cash of \$188,233. Working capital as at September 30, 2017 aggregated \$2,399,859.

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.

Until we are able 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 significant 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

In November 2012, the Company entered into a six year operating lease for its premises. 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 25 of the lease.

As at September 30, 2017, the minimum lease commitments under the non-cancellable operating lease are as follows:

	September 30, 2017
Less than 1 year	\$ 152,713
Between 1 year and 5 years	429,513
Thereafter	70,944
Total	\$ 653,170

### ZIP ULTRA™ Device – Royalty Agreements

In December 2012, the Company 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.

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.

## **Intervertebral Body 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 paid an initial down payment of \$10,000 in January 2014. Pursuant to the asset purchase agreement, commencing in December 2014 the Company was required to pay and is required to continue to pay the seller (a) \$10,000 per month or (b) 16% of gross sales of the DISCOVERY cervical implants for the prior calendar month, whichever is greater. These payments will continue until the Company has paid the seller the aggregate sum of \$200,000. During the year, we renegotiated the contract agreement with the third party. The agreement requires the Company to pay a royalty payment of 5% for all sales of the Discovery PEEK cervical implants for as long as the Company sells the implants. As such, the deferred liability previously recorded relating to the Discovery PEEK cervical implant inventory and related intellectual property was forgiven. The resulting balance for the deferred liability is \$Nil.

The Company will continue to pay a royalty of 5% to the seller quarterly, within 30 days of the end of each calendar quarter. 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 considers 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 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, 2017, trade payable balances to related parties totaled \$22,500 (2016 - \$Nil) and there is an outstanding loan payable to a director of the Company of \$140,000 (2016 – \$157,963) which is due on or before May 2022 and is secured by the instrument sets. Additionally, there is an outstanding secured promissory note to a director of the Company of \$1,600,000 which bears an interest rate of 9% per annum and is due on or before June 2021.

The remuneration of key management of the Company for the nine months ended September 30, 2017 is \$415,158 (nine months ended September 30, 2016 – \$387,792). The increase is due primarily to the reclassification of staff, offset by an executive personnel salary reduction.

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\$ 112,642).

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).

## **Advances From Shareholder**

On July 5, 2016, the Company received a loan in the amount of US\$1,000,000 from an insider of the Company. The Loan is evidenced by a promissory note (the "Note") bearing interest at 9% per annum. On February 28, 2017, the Company increased its Note to an aggregate principal amount of US\$1,250,000. On July 12, 2017, the Company received a loan in the aggregate principal amount of US\$350,000 from the same insider of the Company and increased its Note to an aggregate principal amount of US\$1,600,000 and amended the terms such that the principal amount together with interest thereon is due on June 29, 2021. The Company's wholly owned subsidiary, Aurora Spine, Inc., is party to certain ancillary agreements to guarantee and secure the obligations of the Company under the Note. The insider may at any time on providing 366 days' prior written notice to the Company demand full repayment of the total amount owing by the Company to the insider. The Company intends to use the remaining loan proceeds for general corporate purposes.

On March 21, 2017, the same director of the Company, made a short term demand loan to the Company in the amount of US\$200,000, which was repaid on July 12, 2017.

## **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.

### **Patent and Intellectual Property**

The Company capitalizes the cost of acquiring patents 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.

### **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.

### **Future Accounting Pronouncements**

Certain pronouncements have been issued by the IASB or IFRIC (“IFRS Interpretations Committee”) that will be effective for 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, published in July 2014, replaces the existing guidance in IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 includes guidance on the classification and measurement of financial instruments, a new expected credit loss model for calculating impairment on financial assets, and new general hedge accounting requirements. It also carries forward the guidance on recognition and derecognition of financial instruments from IAS 39. IFRS 9 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted.

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

IFRS 15 - Revenue from Contracts with Customers – The standard replaces IAS 11 Construction Contracts, IAS 18 Revenue, IFRIC Customer Loyalty Programs, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfer of Assets From Customers and SIC 31 Revenue – Barter Transactions Involving Advertising Services. IFRS 15 establishes principles for reporting the nature, amount, timing, and uncertainty of revenue and cash flows arising from an entity’s contract with customers. This standard is effective for annual periods beginning on or after January 1, 2018, and permits early adoption.

#### *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 remains largely in line with previous IAS 17 requirements. The effective date for IFRS 16 is January 1, 2019.

### **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, 2017:

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.

#### **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.

#### **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, 2017 and as such not deemed to be a risk to be hedged at the present time.

#### **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 has designated a staff member to, in part, focus on collection of the Company's outstanding accounts receivable.

Trade Receivables

Description	September 30, 2017	December 31, 2016
Current	\$ 660,000	\$ 293,120
Past due 1-30 days	80,784	517,659
Past due 31-60 days	81,619	131,563
Over 60 days	263,759	286,211
Closing balance (maximum credit risk)	\$1,086,162	\$1,228,553

**Liquidity risk**

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

**Capital management**

The Company's objective when managing capital 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, 2017 was \$2,407,312. There is no change to the Company's capital management policy for the nine months ended September 30, 2017.

**OUTSTANDING SHARE DATA**

**[a] Share capital**

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**

	Common Shares	
	#	\$
Balance, December 31, 2016	33,248,674	19,358,978
Private placement <sup>(a)</sup>	1,670,000	225,209
Share issuance costs <sup>(a)</sup>	–	(1,763)
Balance, September 30, 2017	34,918,674	19,582,424

- (a) 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\$ 112,642).

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 totaled CDN\$1,730 (US\$1,384).

## [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, 2017, 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, 2016	1,961,000	\$0.44	7.04
Issued <sup>(a)(b)(c)</sup>	917,250	\$0.18	7.29
Forfeited/cancelled	(583,500)	N/A	N/A
<b>Balance, September 30, 2017</b>	<b>2,294,750</b>	<b>\$0.22</b>	<b>6.94</b>
<b>Exercisable, September 30, 2017</b>	<b>474,167</b>	<b>\$0.31</b>	<b>6.17</b>

- (a) During the quarter ended March 31, 2017, the Company granted a total of 615,000 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 \$59,524 using the Black-Scholes option pricing model.
- (b) During the quarter ended June 30, 2017, the Company granted a total of 55,000 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 \$3,950 using the Black-Scholes option pricing model.
- (c) During the quarter ended September 30, 2017, the Company granted a total of 247,250 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 \$15,655 using the Black-Scholes option pricing model.

The stock compensation expensed during the three and nine months ended September 30, 2017 was \$10,046 and \$56,039 (three and nine months ended September 30, 2016 - \$85,000 and \$174,230) 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 period ended September 30, 2017 was determined using the Black-Scholes option pricing model using the following assumptions:

	March 31, 2017	June 30, 2017	September 30, 2017
Weighted average risk-free interest rate	1.45%	1.37%	1.80%
Weighted average expected volatility	97%	95%	92%

Expected life	8 years	8 years	8 years
Expected dividend yield	Nil	Nil	Nil
Weighted average share price at date of grant	\$0.19	\$0.14	\$0.13
Weighted average exercise price at date of grant	\$0.20	\$0.14	\$0.13
Weighted average forfeiture rate	39%	38%	58%

## **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. 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. As at September 30, 2017, the Company had recognized \$24,386 of amortization expense. No amortization expense was recognized as of September 30, 2017 and December 31, 2016. No impairment was recognized as of September 30, 2017 and December 31, 2016.

## **ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE**

This MD&A was prepared as of November 27, 2017. 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 27, 2017.