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amily: Times New Roman, Times, Serif"> - (12,517,803) (12,517,803) 2018 11,728,394 \$11,728 \$55,269,490 \$(63,922,256) \$(8,641,038) Balance - December 31,

See Notes to these Consolidated Financial Statements

# **Consolidated Statements of Cash Flows**

	For The Years Ended December 31,	
	2018	2017
Cash Flows From Operating Activities		
Net loss	\$(12,517,803)	\$(9,444,655)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of debt discount	2,289,591	619,266
Accretion of interest expense	624,041	206,284
Depreciation and amortization	240,372	259,259
Stock-based compensation	2,399,385	3,600,804
Loss on extinguishment of note payables, net	1,415,950	59,938
Gain (loss) on settlement of payables	(2,812)	100,895
Change in fair value of derivative liabilities	229,323	(107,039)
Consulting services provided in exchange for notes payable	260,000	-
Warrant modification expense	3,100	30,099
Changes in operating assets and liabilities:		
Accounts receivable	9,000	(32,000)
Prepaid expenses and other current assets	(4,434)	5,548
Security deposit	-	12,076
Accounts payable	(516,117)	185,963
Accrued interest, expenses and other current liabilities	465,775	649,741
Total Adjustments	7,413,174	5,590,834
Total Adjustments	7,413,174	5,590,654
Net Cash Used In Operating Activities	(5,104,629)	(3,853,821)
Cash Flows From Investing Activities		
Purchases of property and equipment	(12,869)	(3,617)
Net Cash Used In Investing Activities	(12,869)	(3,617)
Cash Flows From Financing Activities		
Proceeds from notes payable	5,057,475	2,542,222
Repayments of notes payable	(863,302)	(330,176)
Advances from officers and a family member of an officer	38,500	43,515
Repayments of advances from officers, a director and a family member of an officer	(38,500)	(50 515 )
Proceeds from exercise of warrants	414,168	996,250
Sales of common stock and warrants for cash	175,000	1,084,000
Net Cash Provided By Financing Activities	4,783,341	4,277,296

Net (Decrease) Increase In Cash	(334,157	)	419,858
Cash - Beginning	451,680		31,822
Cash - Ending	\$117,523		\$451,680

See Notes to these Consolidated Financial Statements

# **Consolidated Statements of Cash Flows - Continued**

	For The Yea December 3	
	2018	2017
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the period for:		
Interest	\$44,787	\$17,538
Non-cash investing and financing activities:		
Warrant modifications	\$3,100	\$114,821
Shares and warrants issued or modified and recorded as debt discount in connection with	¢ 201 125	\$ 257 056
notes payable issuances or extensions	\$384,435	\$257,056
Shares issued in exchange for notes payable and accrued interest	\$7,215,366	\$421,302
Conversion of notes payable and accrued interest into common stock	\$110,636	\$524,534
Shares and warrants issued in satisfaction of accrued consulting and director services	\$80,188	\$588,592
Reclassification of derivative liabilities to equity	\$105,187	\$9,019
Bifurcated embedded conversion options recorded as debt discount	\$3,181,376	\$332,131
Beneficial conversion features recorded as debt discount	\$69,394	\$11,991
Consulting services provided in exchange for notes payable	\$260,000	<b>\$</b> -
Sale of warrants recorded as derivative liabilities	\$75,000	<b>\$</b> -
Warrants and options issued for consulting services recorded as derivative liabilities	\$168,526	<b>\$</b> -
Write-offs of fully depreciated property recorded as derivative liabilities and equipment	\$101,423	\$-

See Notes to these Consolidated Financial Statements

#### Notes to Consolidated Financial Statements

#### Note 1 - Business Organization and Nature of Operations

BioRestorative Therapies, Inc. has one wholly-owned subsidiary, Stem Pearls, LLC ("Stem Pearls"). Stem Cell Cayman Ltd. ("Cayman"), which was formed in the Cayman Islands as a wholly-owned subsidiary of the Company, was dissolved in March 2017. BioRestorative Therapies, Inc. and its subsidiaries are referred to collectively as "BRT" or the "Company" (See Note 3 – Summary of Significant Accounting Policies – Principles of Consolidation). BRT develops therapeutic products and medical therapies using cell and tissue protocols, primarily involving adult stem cells. BRT's website is at <u>www.biorestorative.com</u>. BRT is currently developing a Disc/Spine Program referred to as "brtxDISC". Its lead cell therapy candidate, *BRTX-100*, is a product formulated from autologous (or a person's own) cultured mesenchymal stem cells collected from the patient's bone marrow. The product is intended to be used for the non-surgical treatment of painful lumbosacral disc disorders. BRT is also engaging in research efforts with respect to a platform technology utilizing brown adipose (fat) for therapeutic purposes to treat type 2 diabetes, obesity and other metabolic disorders and has labeled this initiative its ThermoStem Program. Further, BRT has licensed a patented curved needle device that is a needle system designed to deliver cells and/or other therapeutic products or material to the spine and discs or other potential sites.

Note 2 - Going Concern and Management's Plans

As of December 31, 2018, the Company had a working capital deficiency and a stockholders' deficiency of \$9,073,901 and \$8,641,038, respectively. During the years ended December 31, 2018 and 2017, the Company incurred net losses of \$12,517,803 and \$9,444,655, respectively. These conditions indicate that there is substantial doubt about the Company's ability to continue as a going concern within one year after the financial statement issuance date.

The Company's primary source of operating funds since inception has been equity and debt financings. The Company intends to continue to raise additional capital through debt and equity financings. There is no assurance that these funds will be sufficient to enable the Company to fully complete its development activities or attain profitable operations. If the Company is unable to obtain such additional financing on a timely basis or, notwithstanding any request the Company may make, the Company's debt holders do not agree to convert their notes into equity or extend the maturity dates of their notes, the Company may have to curtail its development, marketing and promotional activities, which would have a material adverse effect on the Company's business, financial condition and results of operations, and ultimately the Company could be forced to discontinue its operations and liquidate.

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"), which contemplate continuation of the Company as a going concern and the realization of assets and satisfaction of liabilities in the normal course of business. The carrying amounts of assets and liabilities presented in the financial statements do not necessarily purport to represent realizable or settlement values. The consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

Subsequent to December 31, 2018, the Company has received aggregate equity financings and debt financings of \$600,000 and \$3,073,918, respectively, debt (inclusive of accrued interest) of \$643,900 has been exchanged for common stock, \$1,254,805 of debt (inclusive of accrued interest and prepayment premiums) has been repaid, and the due date for the repayment of an aggregate \$155,000 of debt has been extended to December 2020. As a result, the Company expects to have the cash required to fund its operations through April 2019 while it continues to apply efforts to raise additional capital. While there can be no assurance that it will be successful, the Company is in negotiations to raise additional capital. As of the filing date of this report, the Company has notes payable with an aggregate principal balance of \$107,500 which are past due. The Company is currently in the process of negotiating repayments or discussing conversions to equity with respect to one of these notes. However, there can be no assurance that the Company will be successful in repaying or converting the note. See Note 12 – Subsequent Events for additional details.

### Notes to Consolidated Financial Statements

Note 3 - Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements of the Company include the accounts of Cayman and Stem Pearls. All significant intercompany transactions have been eliminated in the consolidation. As discussed above, Cayman, which had no material assets, liabilities or operations (other than intercompany balances) and is no longer needed to facilitate certain financings, was dissolved in March 2017.

### Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the periods. The Company's significant estimates and assumptions include the recoverability and useful lives of long-lived assets, the fair value of the Company's stock, stock-based compensation, warrants issued in connection with notes payable, derivative liabilities and the valuation allowance related to the Company's deferred tax assets. Certain of the Company's estimates, including the carrying amount of the intangible assets, could be affected by external conditions, including those unique to the Company and general economic conditions. It is reasonably possible that these external factors could have an effect on the Company's estimates and could cause actual results to differ from those estimates.

### **Concentrations**

One license and the related royalties comprised all of the Company's revenue during the years ended December 31, 2018 and 2017. See "Revenue Recognition" below.

During the year ended December 31, 2018, 23.1% of the Company's debt financings were from one lender. During the year ended December 31, 2017, 30.9% and 13.7% respectively, of the Company's debt financings were from two lenders.

### <u>Cash</u>

The Company maintains cash in bank accounts, which, at times, may exceed Federal Deposit Insurance Corporation ("FDIC") insured limits. The Company has not experienced any losses in such accounts, periodically evaluates the creditworthiness of the financial institutions and has determined the credit exposure to be negligible. As of December 31, 2018, the Company did not have cash balances in excess of FDIC insured limits. As of December 31, 2017, the Company had cash balances in excess of FDIC insured limits of \$205,302. The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. As of December 31, 2018, and 2017 the Company did not have any cash equivalents.

### Property and Equipment, net

Property and equipment are stated at cost, net of accumulated depreciation which is recorded commencing at the in-service date using the straight-line method at rates sufficient to charge the cost of depreciable assets to operations over their estimated useful lives, which range from 3 to 5 years. Leasehold improvements are amortized over the lesser of (a) the useful life of the asset; or (b) the remaining lease term. Maintenance and repairs are charged to operations as incurred. The Company capitalizes cost attributable to the betterment of property and equipment when such betterment extends the useful life of the assets.

### Intangible Assets

Intangible assets are comprised of patents and trademarks and licenses with original estimated useful lives of 10 and 17.7 years, respectively. Once placed into service, the Company amortizes the cost of the intangible assets over their estimated useful lives on a straight-line basis.

#### Notes to Consolidated Financial Statements

#### Note 3 - Summary of Significant Accounting Policies - Continued

Impairment of Long-lived Assets

The Company reviews for the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The Company measures the carrying amount of the asset against the estimated undiscounted future cash flows associated with it. Should the sum of the expected future net cash flows be less than the carrying value of the asset being evaluated, an impairment loss would be recognized for the amount by which the carrying value of the asset exceeds its fair value. The evaluation of asset impairment requires the Company to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed and estimated amounts. While the Company's near-term liquidity is tight, historically the Company has been successful in raising capital as needed (although there can be no assurance that the Company will continue to be successful in raising capital as needed). The Company continues to progress its scientific agenda and meet related milestones. The Company has not identified any impairment losses at December 31, 2018 and 2017.

#### **Revenue Recognition**

The Company recognizes sublicensing and royalty revenue when all of the following have occurred: (i) persuasive evidence of an arrangement exists, (ii) the service is completed without further obligation, (iii) the sales price to the customer is fixed or determinable, and (iv) collectability is reasonably assured. In November 2015, the Company and a stem cell treatment company ("SCTC") entered into an amendment to a January 27, 2012 license agreement between them. Pursuant to the amendment, effective November 30, 2015, the Company granted to the SCTC (i) a non-exclusive sublicense to use certain of the licensed intellectual property in one location outside the United States and (ii) a non-exclusive sublicense to use, and the right to sublicense to third parties the right to use, in certain locations in the United States, certain of the licensed intellectual property. In consideration of the sublicenses, the SCTC has agreed to pay the Company royalties on a per disc procedure basis. During the years ended December 31, 2018 and 2017, the Company recognized \$111,000 and \$81,000, respectively, of revenue related to the Company's sublicense agreement.

## Income Taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of items that have been included or excluded in the financial statements or tax returns. Deferred tax assets and liabilities are determined on the basis of the difference between the tax basis of assets and liabilities and their respective financial reporting amounts ("temporary differences") at enacted tax rates in effect for the years in which the temporary differences are expected to reverse.

The Company utilizes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Management has evaluated and concluded that there were no material uncertain tax positions requiring recognition in the Company's consolidated financial statements as of December 31, 2018 and 2017. The Company does not expect any significant changes in its unrecognized tax benefits within twelve months of the reporting date.

The Company's policy is to classify assessments, if any, for tax related interest as interest expense and penalties as general and administrative expenses in the consolidated statements of operations.

#### Notes to Consolidated Financial Statements

#### Note 3 – Summary of Significant Accounting Policies – Continued

Net Loss Per Common Share

Basic loss per common share is computed by dividing net loss by the weighted average number of vested common shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other instruments to issue common stock were exercised or converted into common stock.

The following securities are excluded from the calculation of weighted average dilutive common shares because their inclusion would have been anti-dilutive:

	December 31,		
	2018	2017	
Options	4,703,785	3,122,202	
Warrants	3,483,403	3,435,134	
Convertible notes	9,200,062 [1]	1,411,762	
Total potentially dilutive shares	17,387,250	7,969,098	

As of December 31, 2018, many of the convertible notes had variable conversion prices and the shares issuable [1] were estimated based on market conditions. Pursuant to the note agreements, there were 57,019,880 shares of common stock reserved for future note conversions.

#### Stock-Based Compensation

The Company measures the cost of services received in exchange for an award of equity instruments based on the fair value of the award. For employees, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally re-measured on vesting dates and interim financial reporting dates until the service period is complete. The fair value amount is then recognized over the period during which services are

required to be provided in exchange for the award, usually the vesting period. Since the shares underlying the Company's 2010 Equity Participation Plan (the "Plan") are registered, the Company estimates the fair value of the awards granted under the Plan based on the market value of its freely tradable common stock as reported on the OTCQB market. The fair value of the Company's restricted equity instruments was estimated by management based on observations of the cash sales prices of both restricted shares and freely tradable shares. Awards granted to directors are treated on the same basis as awards granted to employees. Upon the exercise of an option or warrant, the Company issues new shares of common stock out of its authorized shares.

### Advertising

Advertising costs are charged to operations as incurred. For the years ended December 31, 2018 and 2017, the Company incurred advertising costs of \$288,986 and \$26,840, respectively. Advertising expense is reflected in marketing and promotion expenses in the consolidated statements of operations.

### Research and Development

Research and development expenses are charged to operations as incurred. For the years ended December 31, 2018 and 2017, the Company incurred research and development expenses of \$1,513,150 and \$2,152,433, respectively.

### Notes to Consolidated Financial Statements

Note 3 – Summary of Significant Accounting Policies – Continued

Fair Value of Financial Instruments

The Company measures the fair value of financial assets and liabilities based on the guidance of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 820 "Fair Value Measurements and Disclosures" ("ASC 820").

ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 describes three levels of inputs that may be used to measure fair value:

Level 1 — quoted prices in active markets for identical assets or liabilities

Level 2 — quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 — inputs that are unobservable (for example, cash flow modeling inputs based on assumptions)

The carrying amounts of accrued liabilities approximate fair value due to the short-term nature of these instruments. The carrying amounts of our short-term credit obligations approximate fair value because the effective yields on these obligations, which include contractual interest rates, taken together with other features such as concurrent issuance of warrants, are comparable to rates of returns for instruments of similar credit risk.

See Note 11 – Derivative Liabilities for additional details regarding the valuation technique and assumptions used in valuing Level 3 inputs.

## **Derivative Financial Instruments**

The Company evaluates its convertible instruments to determine if those contracts or embedded components of those contracts qualify as derivative financial instruments to be separately accounted for in accordance with FASB ASC 815 "Derivatives and Hedging" ("ASC 815"). The accounting treatment of derivative financial instruments requires that the Company record embedded conversion options ("ECOs") and any related freestanding instruments at their fair values as of the inception date of the agreement and at fair value as of each subsequent balance sheet date. Any change in fair value is recorded as non-operating, non-cash income or expense for each reporting period at each balance sheet date. Conversion options are recorded as a discount to the host instrument and are amortized as amortization of debt discount on the consolidated statements of operations over the life of the underlying instrument. The Company reassesses the classification of its derivative instruments at each balance sheet date. If the classification changes as a result of events during the period, the contract is reclassified as of the date of the event that caused the reclassification.

The Multinomial Lattice Model and Black-Scholes Model were used to estimate the fair value of the ECOs of convertible notes payable, warrants and stock options that are classified as derivative liabilities on the consolidated balance sheets. The models include subjective input assumptions that can materially affect the fair value estimates. The expected volatility is estimated based on the actual volatility during the most recent historical period of time equal to the weighted average life of the instruments.

### Sequencing Policy

Under ASC 815-40-35, the Company follows a sequencing policy whereby, in the event that reclassification of contracts from equity to assets or liabilities is necessary pursuant to ASC 815 due to the Company's inability to demonstrate it has sufficient authorized shares as a result of certain securities with a potentially indeterminable number of shares, shares will be allocated on the basis of the earliest issuance date of potentially dilutive instruments, with the earliest grants receiving the first allocation of shares. Pursuant to ASC 815, issuance of securities to the Company's employees or directors are not subject to the sequencing policy.

### Notes to Consolidated Financial Statements

### Note 3 – Summary of Significant Accounting Policies – Continued

Convertible Instruments

The Company bifurcates conversion options from their host instruments and accounts for them as free standing derivative financial instruments according to certain criteria. The criteria include circumstances in which (a) the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to the economic characteristics and risks of the host contract, (b) the hybrid instrument that embodies both the embedded derivative instrument and the host contract is not re-measured at fair value under otherwise applicable generally accepted accounting principles with changes in fair value reported in earnings as they occur and (c) a separate instrument with the same terms as the embedded derivative instrument would be considered a derivative instrument. An exception to this rule is when the host instrument is deemed to be conventional.

When the Company has determined that the embedded conversion options should not be bifurcated from their host instruments, the Company records, when necessary, discounts to convertible notes for the intrinsic value of conversion options embedded in debt instruments (the beneficial conversion feature) based upon the differences between the fair value of the underlying common stock at the commitment date of the note transaction and the effective conversion price embedded in the note. Debt discounts under these arrangements are amortized over the term of the related debt to their stated date of redemption.

### Reclassification

Certain amounts in prior periods have been reclassified to conform to the current period presentation. These reclassifications had no effect on previously reported net loss.

### Subsequent Events

The Company evaluates events that have occurred after the balance sheet date but before the financial statements are issued. Based upon the evaluation, the Company did not identify any recognized or non-recognized subsequent events that would have required adjustment or disclosure in the consolidated financial statements, except as disclosed.

### Recently Issued Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"). ASU 2014-09 supersedes the revenue recognition requirements in ASC 605 -Revenue Recognition ("ASC 605") and most industry-specific guidance throughout ASC 605. The FASB has issued numerous updates that provide clarification on a number of specific issues as well as requiring additional disclosures. The core principle of ASU 2014-09 requires that an entity recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under existing U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The guidance may be adopted through either retrospective application to all periods presented in the financial statements (full retrospective approach) or through a cumulative effect adjustment to retained earnings at the effective date (modified retrospective approach). The Company expects to adopt ASU 2014-09 using a modified retrospective approach effective as of January 1, 2019. The Company has completed an analysis and concluded that the adoption of ASU 2014-09 will not have an impact on the Company's financial statements.

Notes to Consolidated Financial Statements

Note 3 – Summary of Significant Accounting Policies – Continued

Recently Issued Accounting Pronouncements - Continued

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" ("ASU 2016-02"). ASU 2016-02 requires that a lessee recognize the assets and liabilities that arise from operating leases. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. This amendment will be effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The FASB issued ASU No. 2018-10 "Codification Improvements to Topic 842, Leases" ("ASU 2018-10"), ASU No. 2018-11 "Leases (Topic 842) Targeted Improvements" ("ASU 2018-11") in July 2018, and ASU No. 2018-20 "Leases (Topic 842) - Narrow Scope Improvements for Lessors" ("ASU 2018-20") in December 2018. ASU 2018-10 and ASU 2018-20 provide certain amendments that affect narrow aspects of the guidance issued in ASU 2016-02. ASU 2018-11 allows all entities adopting ASU 2016-02 to choose an additional (and optional) transition method of adoption, under which an entity initially applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The Company is currently evaluating these ASUs and their impact on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "Compensation – Stock Compensation (Topic 718)" ("ASU 2016-09"). ASU 2016-09 requires an entity to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for fiscal years beginning after December 15, 2017, with early adoption permitted. The Company adopted this guidance on January 1, 2017. The adoption of this standard did not have a material impact on the Company's financial statement disclosures.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments" ("ASU 2016-15"). The new standard will make eight targeted changes to how cash receipts and cash payments are presented and classified in the statement of cash flows. The new standard is effective for fiscal years beginning after December 15, 2018. The Company will require adoption on a retrospective basis unless it is

impracticable to apply, in which case the Company would be required to apply the amendments prospectively as of the earliest date practicable. The Company does not believe the adoption of ASU 2016-15 will have a material impact on its consolidated financial statements or disclosures.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation—Stock Compensation (Topic 718)" ("ASU 2017-09"). ASU 2017-09 provides clarity on the accounting for modifications of stock-based awards. ASU 2017-09 requires adoption on a prospective basis in the annual and interim periods for the Company's fiscal year ending December 31, 2017 for share-based payment awards modified on or after the adoption date. The adoption of this standard did not have a material impact on the Company's financial statement disclosures.

In July 2017, the FASB issued ASU No. 2017-11, "Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815)": (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception ("ASU 2017-11"). ASU 2017-11 allows companies to exclude a down round feature when determining whether a financial instrument (or embedded conversion feature) is considered indexed to the entity's own stock. As a result, financial instruments (or embedded conversion features) with down round features may no longer be required to be accounted for as derivative liabilities. A company will recognize the value of a down round feature only when it is triggered and the strike price has been adjusted downward. For equity-classified freestanding financial instruments, an entity will treat the value of the effect of the down round as a dividend and a reduction of income available to common shareholders in computing basic earnings per share. For convertible instruments with embedded conversion features containing down round provisions, entities will recognize the value of the down round as a beneficial conversion discount to be amortized to earnings. ASU 2017-11 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. The guidance in ASU 2017-11 can be applied using a full or modified retrospective approach. The Company does not believe the adoption of ASU 2017-11 will have a material impact on its consolidated financial statements or disclosures.

Notes to Consolidated Financial Statements

Note 3 – Summary of Significant Accounting Policies – Continued

Recently Issued Accounting Pronouncements - Continued

In June 2018, the FASB issued ASU No. 2018-07, "Compensation — Stock Compensation (Topic 718)" ("ASU 2018-07"). ASU 2018-07 is intended to reduce cost and complexity and to improve financial reporting for nonemployee share-based payments. Currently, the accounting requirements for nonemployee and employee share-based payment transactions are significantly different. ASU 2018-07 expands the scope of Topic 718, Compensation — Stock Compensation (which currently only includes share-based payments to employees) to include share-based payments issued to nonemployees for goods or services. Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. This ASU supersedes Subtopic 505-50, Equity — Equity-Based Payments to Nonemployees. The amendments in this ASU are effective for fiscal years beginning after December 15, 2019, and including interim periods within that fiscal year. Early adoption is permitted, but no earlier than a company's adoption date of Topic 606, Revenue from Contracts with Customers. The Company is currently evaluating ASU 2018-07 and its impact on its consolidated financial statements.

In July 2018, the FASB issued ASU No. 2018-09, "Codification Improvements" ("ASU 2018-09"). These amendments provide clarifications and corrections to certain ASC subtopics including the following: Income Statement - Reporting Comprehensive Income – Overall (Topic 220-10), Debt - Modifications and Extinguishments (Topic 470-50), Distinguishing Liabilities from Equity – Overall (Topic 480-10), Compensation - Stock Compensation - Income Taxes (Topic 718-740), Business Combinations - Income Taxes (Topic 805-740), Derivatives and Hedging – Overall (Topic 815-10), and Fair Value Measurement – Overall (Topic 820-10). The majority of the amendments in ASU 2018-09 will be effective in annual periods beginning after December 15, 2019. The Company is currently evaluating and assessing the impact this guidance will have on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement ("ASU 2018-13"). The amendments in ASU 2018-13 modify the disclosure requirements associated with fair value measurements based on the concepts in the Concepts Statement, including the consideration of costs and benefits. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be

applied retrospectively to all periods presented upon their effective date. The amendments are effective for all entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The Company is currently evaluating ASU 2018-13 and its impact on its consolidated financial statements.

Note 4 - Property and Equipment, net

Property and equipment include the following:

	December 31,	
	2018	2017
Medical equipment	\$345,963	\$446,506
Furniture and fixtures	120,925	121,625
Computer software and equipment	80,748	78,190
Office equipment	12,979	2,848
Leasehold improvements	304,661	304,661
	865,276	953,830
Less: accumulated depreciation	(690,041)	(625,983)
Property and equipment, net	\$175,235	\$327,847

During the years ended December 31, 2018 and 2017, depreciation expense amounted to \$165,481 and \$184,365, respectively. Depreciation expense is reflected in general and administrative expenses and research and development expenses in the consolidated statements of operations. During the year ended December 31, 2018, the Company disposed of an aggregate of \$101,423 of fully depreciated property and equipment.

#### Notes to Consolidated Financial Statements

Note 5 – Intangible Assets, net

The Company is a party to a license agreement with the SCTC (as amended) (the "SCTC Agreement"). Pursuant to the SCTC Agreement, the Company obtained, among other things, a worldwide, exclusive, royalty-bearing license from the SCTC to utilize or sublicense a certain medical device patent for the administration of specific cells and/or cell products to the disc and/or spine (and other parts of the body) and a worldwide (excluding Asia and Argentina), exclusive, royalty-bearing license to utilize or sublicense a certain method for culturing cells. Pursuant to the license agreement with the SCTC, unless certain performance milestones had been or are satisfied, the Company would have been required to pay to the SCTC \$150,000 by April 2017 and will be required to pay to the SCTC an additional \$250,000 by April 2019 in order to maintain its exclusive rights with regard to the disc/spine technology. In February 2017, the Company received authorization, the Company has satisfied a performance milestone such that the Company was not required to pay to the SCTC a minimum amount of \$150,000 by April 2017 to retain exclusive rights with regard to the disc/spine technology. In addition, the Company believes that it has until February 2022 to complete the Phase 2 clinical trial in order to satisfy the final performance milestone such that the Company would not be required to pay the additional \$250,000 by April 2019 pursuant to the SCTC Agreement to maintain its exclusive rights.

Intangible assets consist of the following:

	Patents and Trademarks	Licenses	Accumulated Amortization	Total
Balance as of January 1, 2017	\$ 3,676	\$1,301,500	\$ (341,331	) \$963,845
Amortization expense	-	-	(74,895	) (74,895)
Balance as of December 31, 2017	3,676	1,301,500	(416,226	) 888,950
Amortization expense	-	-	(74,891	) (74,891)
Balance as of December 31, 2018	\$ 3,676	\$1,301,500	\$ (491,117	) \$814,059
Weighted average remaining amortization period at December 31, 2018 (in years)	2.0	10.9		

Amortization of intangible assets consists of the following:

	Patents and Trademarks	Licenses	Accumulated Amortization
Balance as of January 1, 2017	\$ 2,208	\$339,123	\$ 341,331
Amortization expense	368	74,527	74,895
Balance as of December 31, 2017	2,576	413,650	416,226
Amortization expense	368	74,523	74,891
Balance as of December 31, 2018	\$ 2,944	\$488,173	\$ 491,117

Amortization expense is reflected in general and administrative expenses in the consolidated statements of operations. Based upon the current intangible assets as of December 31, 2018, amortization expense is projected to be approximately \$75,000 per annum through 2029.

#### Notes to Consolidated Financial Statements

Note 6 - Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities are comprised of the following:

	December 31,	
	2018	2017
Accrued payroll	\$91,560	\$349,163
Accrued research and development expenses	646,175	636,175
Accrued general and administrative expenses	1,084,831	605,318
Accrued director compensation	482,500	282,500
Deferred rent	33,610	50,395
Total accrued expenses	2,338,676	1,923,551
Less: accrued expenses, current portion	2,302,176	1,885,551
Accrued expenses, non-current portion	\$36,500	\$38,000

During the year ended December 31, 2018, the Company received non-interest bearing advances in the aggregate amount of \$38,500 from officers and a family member of an officer of the Company and repaid an aggregate of \$38,500 of non-interest bearing advances from officers and a family member of an officer of the Company. During the year ended December 31, 2017, the Company received non-interest bearing advances in the amount of \$43,515 from an officer and a family member of an officer of the Company and repaid an aggregate of \$58,515, of which \$15,000 was in accounts payable at December 31, 2016, of non-interest bearing advances from a director, an officer and a family member of an officer of the Company.

Effective March 1, 2017, the Company entered into an exchange agreement with the Chairman of the Company's Scientific Advisory Board, pursuant to which an aggregate of \$175,000 of accrued consulting fees were exchanged for 58,334 shares of common stock of the Company and, in consideration thereof, the Company issued to such person an immediately vested five-year warrant for the purchase of 58,334 shares of common stock of the Company at an exercise price of \$4.00 per share. The common stock and warrants had an aggregate grant date value of \$211,752 and, as a result, the Company recorded a loss on settlement of payables of \$36,752 which is reflected within general and administrative expenses in the consolidated statements of operations.

Effective March 1, 2017, the Company entered into exchange agreements with four non-employee directors of the Company, pursuant to which an aggregate of \$265,000 of accrued director fees were exchanged for an aggregate of 88,334 shares of common stock of the Company and, in consideration thereof, the Company issued to the directors immediately vested five-year warrants for the purchase of an aggregate of 88,334 shares of common stock of the Company at an exercise price of \$4.00 per share. The aggregate value of the shares and warrants was \$320,652, and accordingly the Company recorded a loss on settlement of payables of \$55,652 which is reflected within general and administrative expenses in the consolidated statements of operations.

Effective July 18, 2017, the Company entered into an exchange agreement with a certain vendor of the Company, pursuant to which \$17,697 of accounts payable were exchanged for 8,334 shares of common stock of the Company. In consideration thereof, the Company issued to the vendor immediately vested five-year warrants for the purchase of 2,000 shares of common stock of the Company at an exercise price of \$4.00 per share. The aggregate value of the shares and warrants was \$19,888, and accordingly the Company recorded a loss on settlement of payables of \$2,191 which is reflected within general and administrative expenses in the consolidated statements of operations.

Effective December 12, 2018, the Company entered into an exchange agreement with a certain consultant of the Company, pursuant to which \$45,000 of accounts payable were exchanged for 56,250 shares of common stock of the Company. The value of the shares was \$42,188, and accordingly the Company recorded a gain on settlement of payables of \$2,812 which is reflected within general and administrative expenses in the consolidated statements of operations.

See Note 9 – Commitments and Contingencies – Consulting Agreements and Note 12 – Subsequent Events for details regarding additional exchanges of accrued consulting fees for shares of common stock and warrants.

# Notes to Consolidated Financial Statements

Note 7 – Notes Payable

A summary of the notes payable activity during the years ended December 31, 2018 and 2017 is presented below:

	Related Party	Convertible	Other	Debt
	Notes	Notes	Notes	Discount Total
Outstanding, December 31, 2016	\$827,500	\$390,000	\$1,119,065	\$(179,964) \$2,156,601
Issuances	175,000	1,612,333	1,033,900	- 2,821,233
Indebtedness satisfied via settlement	-	637,250 [1]	(637,250)	
Exchanges for equity	(97,500)	) (50,000 )	(203,750)	- (351,250)
Conversions to equity	-	(495,197)	-	- (495,197 )
Repayments	(60,000)	(69,176)	(201,000)	- (330,176 )
Recognition of debt discount	-	-	-	(964,911) (964,911)
Accretion of interest expense	-	4,660	13,500	188,124 206,284
Amortization of debt discount	-	-	-	619,266 619,266
Outstanding, December 31, 2017	\$845,000	\$2,029,870 [2]	\$1,124,465	\$(337,485) \$3,661,850
Issuances	-	6,357,286 [3]	128,000	- 6,485,286
Exchanges for equity	(95,000)	(2,739,926)	(1,047,247)	681,281 (3,200,892)
Conversions to equity	-	(105,000)	-	- (105,000 )
Repayments	(30,000)	(833,302)	-	61,001 (802,301)
Extinguishment of notes payable	-	(407,295)[3]	(318,493)[3]	- (725,788)
Recognition of debt discount	-	-	-	(4,077,234) $(4,077,234)$
Accretion of interest expense	-	7,782	245,776	370,483 624,041
Amortization of debt discount	-	-	-	2,289,591 2,289,591
Outstanding, December 31, 2018	\$720,000	\$ 4,309,415 [2]	\$132,501	\$(1,012,363) \$4,149,553
Outstanding, December 31, 2017	\$845,000	\$2,029,870 [2]	\$1,124,465	\$(337,485) \$3,661,850
Less: current portion, December 31, 2017	(845,000)	(1,834,332)	(1,124,465)	336,229 (3,467,568)
Non-current portion, December 31, 2017	\$-	\$195,538	\$-	\$(1,256) \$194,282
[4]	ф-	\$193,338	<b>\$-</b>	\$(1,230) \$194,282
Outstanding, December 31, 2018	\$720,000	\$4,309,415 [2]	\$132,501	\$(1,012,363) \$4,149,553
Less: current portion, December 31, 2018	(720,000)	(3,710,024)	(132,501)	936,866 (3,625,659)
Non-current portion, December 31, 2018	\$-	\$599,391	\$-	\$(75,497) \$523,894
[4]	r			· · · · · · · · · · · · · · · · · · ·

#### Notes to Consolidated Financial Statements

#### Note 7 - Notes Payable - Continued

In connection with certain note extensions during the year ended December 31, 2017, the Company and a certain lender agreed to add embedded conversion options, permitting principal and the respective accrued interest to be [1] convertible into shares of the Company's common stock at the election of the lender any time until the balance has been paid in full. See Note 7 – Notes Payable – Convertible Notes and Note 11 – Derivative Liabilities for additional details regarding the embedded conversion options.

As of December 31, 2018 and 2017, a portion of convertible notes with an aggregate principal balance of \$2,374,415 and \$1,777,788, respectively, was convertible into shares of common stock at the election of the holder any time immediately until the balance has been paid in full. As of December 31, 2018 and 2017, a portion of convertible notes with an aggregate principal balance of \$0 and \$252,082, respectively, was convertible into shares of common stock at the election of the Company near maturity. In the event the Company exercised that conversion right, the respective holder had the right to accelerate the conversion of up to \$0 and \$196,666 of principal into shares of common stock at December 31, 2018 and 2017, respectively, at the same conversion price. As of December 31, 2018, a portion of convertible notes with an aggregate principal balance of \$1,935,000, which were not yet convertible, will become convertible into shares of the Company's common stock at the election of the respective holder subsequent to December 31, 2018.

During the year ended December 31, 2018, convertible notes in the aggregate principal amount of \$725,788 were [3] issued concurrently with the extinguishment of certain notes payable in the same aggregate principal amount. See below within Note 7 – Notes Payable – Conversions, Exchanges and Other for additional details.

As of December 31, 2018 and 2017, the Company reclassified principal in the aggregate amount of \$523,894 and \$194,282, respectively (net of debt discount of \$75,497 and \$1,256, respectively), and accrued interest in the aggregate amount of \$18,137 and \$9,591, respectively, to notes payable, non-current portion, net of debt discount and accrued interest, non-current portion, respectively, on the consolidated balance sheets related to outstanding notes payable that were converted into or exchanged for shares of common stock subsequent to December 31, 2018 and 2017, respectively. See Note 12 – Subsequent Events for additional details regarding notes payable.

### Related Party Notes

As of December 31, 2018 and 2017, related party notes consisted of notes payable issued to certain directors of the Company, family members of an officer of the Company, and the Tuxis Trust (the "Trust"). A director and principal shareholder of the Company (the "Director/Principal Shareholder") serves as a trustee of Trust, which was established

for the benefit of his immediate family.

During the year ended December 31, 2017, the Company issued to the Director/Principal Shareholder a note in the principal amount of \$175,000, which bears interest at a rate of 15% per annum payable and provided for a maturity date of December 1, 2017. In November 2017, the maturity date of the note was extended to December 1, 2018 as described below (subject to a Financing Acceleration, as defined below). The note is secured by the grant of a security interest in the Company's equipment and intellectual property. In connection with the borrowing, the Company agreed that the payment of a note in the principal amount of \$500,000 issued to the Trust (the "Trust Note") is also secured by such security interest.

During the year ended December 31, 2017, the Company and the Trust agreed to extend the maturity date of the Trust Note from July 2017 to December 2017. As consideration of the extension, the Company increased the interest rate payable on the Trust Note from 10% to 15% per annum. During the year ended December 31, 2017, the maturity date of the Trust Note was further extended to December 1, 2018 as described below. In the event that, prior to maturity, the Company receives net proceeds of \$10,000,000 from a single equity or debt financing (as opposed to a series of related or unrelated financings), the Trust has the right to require that the Company prepay the amount due under the Trust Note (subject to the consent of the party that provided the particular financing) (a "Financing Acceleration").

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Related Party Notes - Continued

During the year ended December 31, 2017, the Company, the Trust and the Director/Principal Shareholder agreed to extend the maturity dates of the above notes payable with an aggregate principal balance of \$675,000, that were near maturity, to December 1, 2018 (subject to a Financing Acceleration). In consideration of the note extensions, the Company reduced the exercise prices for an aggregate of 1,219,444 previously issued five-year warrants to purchase the Company's common stock at prices ranging from \$4.50 to \$5.00 per share to a reduced exercise price of \$4.00 per share. The incremental modification expense of \$84,722 has been recorded as debt discount and is being amortized over the extended term of the notes. During the year ended December 31, 2018, the Company, the Trust and the Director/Principal Shareholder agreed to further extend the maturity dates of the above notes payable with an aggregate principal balance of \$675,000, that were near maturity, to December 31, 2019 (subject to a Financing Acceleration). In consideration of one of the note extensions, the Company reduced the exercise prices for an aggregate of \$4.00 per share to a reduced exercise price of \$675,000, that were near maturity, to December 31, 2019 (subject to a Financing Acceleration). In consideration of one of the note extensions, the Company's common stock from an exercise price of \$4.00 per share to a reduced exercise price of \$1.50 per share. The incremental modification expense of \$244,889 has been recorded as debt discount and is being amortized over the extended term of the respective note. See Note 10 – Stockholders' Deficiency for additional details regarding the warrant modification.

During the year ended December 31, 2017, the Company and a director of the Company agreed to extend the maturity date of a note payable with a principal balance of \$50,000 from February 2017 to February 2018. In connection with the extension, the Company issued the director a five-year, immediately vested warrant to purchase 5,000 shares of common stock at an exercise price of \$4.00 per share. The grant date fair value of the warrant of \$8,050 was recorded as debt discount and is being amortized over the remaining term of the note.

During the year ended December 31, 2018, the Company and certain related parties agreed to further extend the maturity dates of notes payable with an aggregate principal balance of \$140,000 from maturity dates ranging between August 2016 to February 2018 to new maturity dates ranging from July 2018 to December 2018. As of December 31, 2018, a certain related party note in the outstanding principal amount of \$45,000 was past maturity.

During the year ended December 31, 2017, the Company and certain related party lenders agreed to exchange certain related party notes with an aggregate principal balance of \$97,500 and aggregate accrued interest of \$288 into an aggregate of 32,597 shares of common stock and immediately vested five-year warrants to purchase an aggregate of 32,597 shares of common stock at an exercise price of \$4.00 per share. The common stock and warrants had an aggregate exchange date value of \$118,328 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$20,540.

During the year ended December 31, 2018, the Company and certain related parties agreed to exchange certain notes with an aggregate principal balance of \$95,000 for an aggregate of 76,000 shares of the Company's common stock. The common stock had an aggregate exchange date value of \$114,000 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$19,000.

During the years ended December 31, 2018 and 2017, the Company partially repaid certain related party notes in the aggregate principal amount of \$30,000 and \$60,000, respectively.

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Convertible Notes

Issuances

During the year ended December 31, 2017, the Company issued lenders convertible notes in the aggregate principal amount of \$1,554,000, for aggregate gross proceeds of \$1,415,970. The difference of \$138,030 was recorded as an original issue discount and is being amortized over the terms of the respective notes. The convertible notes bore interest at rates ranging between 6% to 10% per annum payable at maturity with maturity dates ranging between November 2017 through July 2018. In connection with the issuance of these convertible notes, the Company issued a certain lender 8,000 shares of common stock. Additionally, in connection with the issuance of certain convertible notes, the Company issued certain lenders five-year warrants to purchase an aggregate 62,019 shares of the Company's common stock at exercise prices ranging from \$4.00 to \$4.15 per share, subject to a mandatory redemption provision depending on the warrant. The aggregate relative fair value of the common stock and warrants was \$104,402, which was recorded as a debt discount and is being amortized over the terms of the respective convertible notes. See Note 11 – Derivative Liabilities for details regarding the mandatory redemption provision. In connection with certain convertible notes, the Company incurred \$13,750 of debt issuance costs which is being amortized over the terms of the respective notes.

During the year ended December 31, 2017, the Company issued a lender a note payable in the principal amount of \$83,333 of which \$25,000 of principal bore no interest and \$58,333 of principal bore interest at 10% per annum and was convertible into common stock. In connection with the issuance of the note, the Company received gross proceeds of \$75,000, and the difference of \$8,333 has been recorded as an original issue discount and will be amortized over the term of the note. The note provided for payment as follows: (i) \$25,000 of principal (classified as an other note herein), which bore no interest and was not convertible into common stock, was payable three weeks from the issuance date, (ii) \$11,667 of principal and the respective interest on such principal was payable six months from the issuance date (the "First Maturity Date"), (iii) \$11,667 of principal and the respective interest on such principal and the respective accrued interest on such principal was payable four weeks following the First Maturity Date, (iv) \$11,667 of principal and the respective interest on such principal was payable four weeks following the First Maturity Date, (v) \$11,667 of principal and the respective interest on such principal was payable six weeks following the First Maturity Date, and (vi) \$11,667 of principal and

the respective interest on such principal was payable eight weeks following the First Maturity Date. In connection with the issuance of this note, the Company issued the lender 3,500 shares of common stock with a relative fair value of \$6,458 which was recorded as an original issue discount and is being amortized over the term of the note.

During the year ended December 31, 2018, the Company issued certain lenders and a consultant convertible notes payable in the aggregate principal amount of 5,631,498 for aggregate cash proceeds of 4,947,475. The difference of 684,025 was recorded as follows: (i) 424,023 was recorded as a debt discount and will be amortized over the terms of the respective notes and (ii) 260,000 was recognized as consulting expense in the consolidated financial statements for services performed during the period. See Note 9 – Commitments and Contingencies for additional details regarding convertible notes issued in connection with consulting services. The convertible notes bear interest at rates ranging between 6% and 15% per annum payable at maturity with original maturity dates ranging between June 2018 through December 2019. In connection with the issuance of certain convertible notes, the Company issued the lenders an aggregate of 53,249 shares of the Company's common stock and the relative fair value of 60,925 was recorded as debt discount and is being amortized over the terms of the respective notes. See below within Note 7 – Notes Payable – Conversions, Exchanges and Other and Note 11 – Derivative Liabilities for additional details regarding the ECOs of the convertible notes.

During the year ended December 31, 2018, convertible notes in the aggregate principal amount of \$725,788 were issued concurrently with the extinguishment of certain convertible and other notes payable in the same aggregate principal amount. See below within Note 7 – Notes Payable – Conversions, Exchanges and Other for additional details.

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Convertible Notes - Continued

Embedded Conversion Options and Note Provisions

As of December 31, 2018, outstanding convertible notes in the aggregate principal amount of \$2,374,415 were convertible into shares of common stock of the Company as follows: (i) \$920,000 of aggregate convertible notes were convertible at a fixed price ranging from \$1.00 to \$2.00 per share for the first six months following the respective issue date, thereafter, at a conversion price equal to 58% of the fair value of the Company's stock, subject to adjustment, until the respective note has been paid in full, (ii) \$350,000 of convertible notes were convertible at a fixed conversion price of \$2.15 per share, (iii) \$100,000 of convertible notes were convertible at the greater of (a) 60% of the fair value of the Company's stock or (b) \$1.00 per share, (iv) \$904,415 of aggregate convertible notes were convertible at a range of 58% to 65% of the fair value of the Company's stock (subject to adjustment), depending on the note, and (v) \$100,000 of convertible notes were convertible into shares of common stock of the Company at a conversion price of \$0.60 per share, subject to adjustment, and a five year warrant (the "Warrant") for the purchase of a number of shares equal to the number of shares issued upon the conversion of the principal amount of the Note. The Warrant provides for an exercise price of \$0.80 per share, subject to adjustment. The Company analyzes the ECOs of its convertible notes at issuance to determine whether the ECO should be bifurcated and accounted for as a derivative liability or if the ECO contains a beneficial conversion feature. See below within Note 7 – Notes Payable – Convertible Notes and Note 11 – Derivative Liabilities for additional details regarding the embedded conversion options of the convertible notes.

As of December 31, 2018, a portion of convertible notes with an aggregate principal balance of \$1,935,000, which were not yet convertible, will become convertible into shares of the Company's common stock subsequent to December 31, 2018, as follows: (i) \$1,835,000 of aggregate convertible notes will generally become convertible at a conversion price equal to 58% of the fair value of the Company's stock, subject to adjustment, until the respective note has been paid in full and (ii) \$100,000 of convertible notes will become convertible at the greater of (a) 58% of the fair value of the Company's stock, subject to adjust the greater of (a) 58% of the fair value of the Company's stock or (b) \$1.50 per share.

As of December 31, 2018, outstanding convertible notes in the aggregate principal amount of \$69,978 have mandatory prepayment terms at the option of the holder ("MPOs"). Convertible notes issued with MPOs permit the respective holder to demand prepayment of the note, in cash, at a premium of 35% of the then outstanding principal balance and accrued interest during the period between 150 days to 179 days following the respective issuance date.

As of December 31, 2018, outstanding convertible notes in the aggregate principal amount of \$2,798,493 have prepayment premiums, whereby, in the event that the Company elects to prepay certain notes during the first ninety-day period following the issue date, the respective holder is entitled to receive a prepayment premium of up to 35%, depending on the note, on the then outstanding principal balance including accrued interest. In the event that the Company prepays any of the notes during the second ninety-day period following the issue date, the respective holder is entitled to receive a prepayment premium of up to 40%, depending on the note, on the then outstanding principal balance including accrued interest. In the event that the Company prepays a certain note after the 180<sup>th</sup> day period following the issue date and prior to maturity, the holder is entitled to receive a prepayment premium of 50% on the then outstanding principal balance including principal balance including accrued interest.

As of December 31, 2018, outstanding convertible notes in the aggregate principal amount of \$1,849,978 have most favored nation ("MFN") provisions, whereby, so long as such respective note is outstanding, upon any issuance by the Company of any security with certain identified provisions more favorable to the holder of such security, then at the respective holder's option, those more favorable terms shall become a part of the transaction documents with the holder. As of December 31, 2018, notes with applicable MFN provisions were convertible using MFN conversion prices equal to 58% of the fair market value of the Company's stock, as defined.

During the year ended December 31, 2018, the Company determined that certain ECOs of issued or extended convertible notes were derivative liabilities. The aggregate issuance date value of the bifurcated ECOs was \$3,631,702, of which \$3,181,376 was recorded as a debt discount and is being amortized over the terms of the respective convertible notes and \$450,326 was recognized as part of an extinguishment loss as described below. See Note 11 – Derivative Liabilities for additional details.

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Convertible Notes - Continued

Embedded Conversion Options and Note Provisions - Continued

During the years ended December 31, 2018 and 2017, the contingently adjustable non-bifurcated, beneficial conversion features associated with certain convertible notes were resolved and such notes became convertible during the period. The Company estimated the intrinsic value of the beneficial conversion features based upon the difference between the fair value of the underlying common stock at the commitment date of the note transaction and the adjusted conversion price embedded in the convertible note. During the years ended December 31, 2018 and 2017, the Company recognized \$69,394 and \$11,991, respectively, related to the beneficial conversion feature as debt discount which was immediately amortized.

Conversions, Exchanges and Other

During the year ended December 31, 2017, the Company and a certain lender agreed to exchange a certain convertible note with a principal balance of \$50,000 and accrued interest of \$2,712 into 29,280 shares of common stock. The common stock had an exchange date value of \$58,560 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$5,848.

During the year ended December 31, 2017, certain convertible notes with an aggregate principal balance of \$495,197 and aggregate accrued interest of \$29,338 were converted into an aggregate of 243,441 shares of common stock at conversion prices ranging from \$1.75 to \$2.77 per share at the election of either the Company or the respective lender.

During the year ended December 31, 2017, the Company and a lender agreed to multiple extensions of the maturity dates of notes payable with an aggregate principal balance of \$637,250 with maturity dates that were near or at maturity to maturity dates ranging from December 1, 2017 through February 10, 2018. In connection with one of the note extensions, the Company issued the lender 2,500 shares of common stock. The issuance date fair value of the common stock of \$5,000 has been recorded as a debt discount and is being amortized over the term of the note. Additionally, in connection with one of the extensions, the Company incurred an extension fee in the amount \$8,500 which was accreted as interest expense and added to the principal balance of the note. Also, in connection with the note extensions, the Company increased the effective rate at which the notes bore interest from 0% to 8% on dates effective between August 2, 2017 and September 7, 2017. Furthermore, in connection with certain extensions, the Company and the lender agreed to add an aggregate \$4,660 of incurred interest to the principal of the respective notes. Further, in connection with the note extensions, the Company added embedded conversion options, pursuant to which each payment of principal and the respective accrued interest is convertible into shares of the Company's common stock at the election of the lender at any time until the balance has been paid in full at a conversion price equal to 80% of the fair market value of the Company's stock (subject to reduction to 70% under certain circumstances); however, generally the conversion price could not be less than \$1.00 per share. The embedded conversion options of the notes were determined to be derivative liabilities. The aggregate issuance date value of the embedded conversion options was \$252,117, which was recorded as a debt discount and is being amortized over the terms of the respective convertible notes. See Note 11 – Derivative Liabilities for additional details.

During the year ended December 31, 2017, the Company repaid an aggregate principal amount of \$69,176 of convertible notes.

During the year ended December 31, 2018, the Company and certain lenders exchanged certain convertible notes with bifurcated ECOs with an aggregate net carrying amount of \$5,144,063 (including an aggregate of \$2,058,645 of principal net of debt discount, \$166,022 of accrued interest and \$2,919,396 related to the separated ECOs accounted for as derivative liabilities) for an aggregate of 3,734,664 shares of the Company's common stock at conversion prices ranging from \$0.28 to \$2.38 per share. The common stock had an aggregate exchange date value of \$5,846,809 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$702,746. See Note 11 – Derivative Liabilities for additional details.

During the year ended December 31, 2018, the Company elected to convert certain convertible notes with an aggregate principal balance of \$105,000 and aggregate accrued interest of \$5,636 into an aggregate of 97,424 shares of the Company's common stock at conversion prices ranging from \$0.82 to \$2.02 per share.

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Convertible Notes - Continued

Conversions, Exchanges and Other - Continued

During the year ended December 31, 2018, the Company repaid an aggregate principal amount of \$833,302 of convertible notes payable, \$44,787 of the respective aggregate accrued interest and an aggregate of \$238,808 of prepayment premiums. As a result of the repayments, the Company recorded a loss on extinguishment of notes payable of \$299,809 and an aggregate of \$61,001 of the related debt discounts were extinguished.

During the year ended December 31, 2018, the Company and certain lenders agreed to multiple extensions of the maturity dates of notes payable with an aggregate principal balance of 681,445 from maturity dates ranging between December 2017 to July 2018 to new maturity dates ranging from April 2018 to September 2018. In consideration of the extensions, the Company issued a lender 4,500 shares of the Company's common stock. The issuance date fair value of the common stock of 9,000 was recorded as debt discount and is being amortized over the remaining term of the note. See below within this Note 7 – Notes Payable – Conversions, Exchanges and Other and Note – 11 Derivative Liabilities for additional details regarding the ECOs of the convertible notes. As of December 31, 2018, there were no convertible notes payable past due.

During the year ended December 31, 2018, certain lenders to the Company acquired other promissory notes issued by the Company in the aggregate outstanding amount of \$725,788 (inclusive of accreted interest of \$76,272) from different lenders to the Company. The Company exchanged the acquired notes for new convertible notes in the aggregate principal amount of \$725,788 which accrue interest at rates ranging between 8% to 12% per annum, payable on the respective maturity date ranging between August 2019 and November 2019. The ECOs of the notes were subject to sequencing and their issuance date fair value of \$450,326 was accounted for as derivative liabilities (see Note 11 – Derivative Liabilities for additional details). Since the fair value of the new ECOs exceeded 10% of the respective principal amounts of the new notes, the note exchanges were accounted for as extinguishments, and accordingly the Company recognized a net loss on extinguishment of \$248,891 in connection with the derecognition of the net carrying amount of \$927,223 of the extinguished debt (\$725,788 of aggregate principal and interest and the

derivative liability carrying value of their ECOs of an aggregate of \$201,435) and the issuance of the new convertible notes in the aggregate principal amount \$725,788 plus the fair value of the new notes' ECOs of an aggregate of \$450,326.

Other Notes

Issuances

During the year ended December 31, 2017, the Company issued lenders other notes in the aggregate principal amount of \$1,033,900 for aggregate gross proceeds of \$915,000, and the difference of \$118,900 has been recorded as an original issue discount and will be amortized over the terms of the respective notes (inclusive of \$25,000 of principal of a note payable as discussed above in Note 7 – Notes Payable – Convertible Notes). The other notes bear interest at rates between 0% to 12% per annum payable at maturity. The other notes matured between dates in May 2017 to July 2018. In connection with the issuance of these other notes, the Company issued to certain lenders 22,653 shares of common stock and certain other lenders five-year warrants to purchase an aggregate of 55,000 shares of common stock at an exercise price of \$4.00 per share. The aggregate relative fair value of the common stock and warrants of \$116,248 was recorded as an original issue discount and is being amortized over the terms of the respective notes.

During the year ended December 31, 2018, the Company issued a lender three-month notes payable in the aggregate principal amount of \$128,000, which bear no interest, for aggregate cash proceeds of \$110,000. The \$18,000 difference was recorded as debt discount and is being amortized over the terms of the respective notes. In connection with the issuances of the promissory notes, the Company issued the lender an aggregate of 6,500 shares of the Company's common stock. The issuance date fair value of the common stock of \$9,627 was recorded as debt discount and is being amortized over the terms of the respective notes.

Notes to Consolidated Financial Statements

Note 7 - Notes Payable - Continued

Other Notes - Continued

Exchanges and Other

During the year ended December 31, 2017, the Company and certain lenders agreed to exchange certain other notes with an aggregate principal balance of \$203,750 and aggregate accrued interest of \$7,114 into an aggregate of 70,205 shares of common stock and immediately vested five-year warrants to purchase an aggregate of 63,205 shares of common stock at an exercise price of \$4.00 per share. In addition, in consideration of the exchange by certain lenders, the Company agreed to extend the expiration dates of certain warrants held by the lenders for the purchase of an aggregate of 18,000 shares of common stock of the Company at an exercise price of \$4.00 per share, from expiration dates ranging from April 27, 2021 to January 31, 2022 to a new expiration date of February 8, 2022. The common stock, warrants, and warrant modification (which represents the incremental value of the modified warrant as compared to the original warrant value, both valued as of the modification date) had an aggregate exchange date value of \$244,414 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$33,550.

During the year ended December 31, 2017, the Company and certain lenders agreed to extend other notes with an aggregate principal balance of \$984,063, that were near or at maturity, to various dates through October 2018. In consideration of the extensions, the Company issued certain lenders an aggregate 4,300 shares of the Company's common stock. Also, in connection with the extensions, the Company issued certain lenders five-year, immediately vested warrants to purchase an aggregate of 56,118 shares of the Company's common stock at exercise prices ranging between \$4.00 to \$5.00 per share. The aggregate grant date fair value of the common stock and warrants of \$96,910 has been recorded as debt discount and is being amortized over the terms of the respective notes. Additionally, in connection with one of the extensions, the Company incurred debt issuance costs in the amount \$5,000 which was accreted as interest expense and added to the principal balance of the note.

During the year ended December 31, 2017, the Company and a lender agreed to extend other notes with an aggregate principal balance of \$637,250 such that the notes also became convertible into shares of the Company's common stock. See Note 7 – Notes Payable – Convertible Notes for additional details.

During the year ended December 31, 2017, the Company repaid an aggregate principal amount of \$201,000 of other notes.

During the year ended December 31, 2018, the Company and certain lenders agreed to exchange certain notes with an aggregate principal balance of \$1,047,247 and aggregate accrued interest of \$61,802 for an aggregate of 1,221,250 shares of the Company's common stock at exchange prices ranging from \$0.72 to \$1.50 per share. The common stock had an aggregate exchange date value of \$1,254,557 and, as a result, the Company recorded a loss on extinguishment of notes payable of \$145,508.

During the year ended December 31, 2018, the Company and certain lenders agreed to multiple extensions of the maturity dates of notes payable with an aggregate principal balance of \$1,309,747 from maturity dates ranging between December 2017 to October 2018 to new maturity dates ranging from March 2018 to January 2019. In consideration of the extensions, the Company issued certain lenders an aggregate of 35,000 shares of the Company's common stock. The aggregate issuance date fair value of the common stock of \$60,000 was recorded as debt discount and is being amortized over the remaining terms of the respective notes. Additionally, in connection with a certain extension, the Company increased the stated rate at which the note bears interest, from 0% to 8% per annum, effective June 2018. Furthermore, in connection with certain of the extensions, the Company accreted an aggregate of \$177,286 as interest expense to the principal balance of the respective note. As of December 31, 2018, principal of \$7,500 of a certain other note payable was past due.

During the year ended December 31, 2018, a convertible promissory note in the principal amount of \$318,493 was issued concurrently with the extinguishment of a certain other note payable in the same principal amount. See above within Note 7 – Notes Payable – Conversions, Exchanges and Other for additional details.

#### Notes to Consolidated Financial Statements

Note 8 – Income Taxes

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

	For The Years Ended December 31,		
	2018	2017	
Deferred Tax Assets:			
Net operating loss carryforwards	\$4,401,000	\$2,176,000	
Stock-based compensation	3,433,000	2,873,000	
Accruals	6,000	48,000	
Research & development tax credits	358,000	340,000	
Other	1,000	1,000	
Gross deferred tax assets	8,199,000	5,438,000	
Deferred Tax Liabilities: Fixed assets Intangible assets Gross deferred tax liabilities	(2,000 ) (19,000 ) (21,000 )	(16,000)	
Net deferred tax assets	8,178,000	5,388,000	
Valuation allowance	(8,178,000)	(5,388,000)	
Deferred tax asset, net of valuation allowance	\$-	\$-	
Changes in valuation allowance	\$2,790,000	\$(1,291,000)	

The income tax provision (benefit) consists of the following:

For The Years Ended December 31, 2018 2017

Federal:		
Current	\$-	\$-
Deferred	(2,253,000)	1,385,000
State and local:		
Current	-	-
Deferred	(537,000)	(94,000)
	(2,790,000)	1,291,000
Change in valuation allowance	2,790,000	(1,291,000)
Income tax provision (benefit)	\$-	\$-

Notes to Consolidated Financial Statements

Note 8 – Income Taxes – Continued

A reconciliation of the statutory federal income tax rate to the Company's effective tax rate is as follows:

	For The Years Ended		
	December 31,		
	2018 2017		
Tax benefit at federal statutory rate	(21.0)% (34.0)%		
State income taxes, net of federal benefit	(5.0)% (4.0)%		
Permanent differences	3.8 % 0.0 %		
Change in tax rates	$0.0 \ \% \ 24.7 \ \%$		
Research & development tax credits	(0.1)% (1.6)%		
Impact of Section 382 limits	$0.0 \ \% \ 28.3 \ \%$		
True-ups and other	0.0 % 0.3 %		
Change in valuation allowance	22.3 % (13.7)%		
Effective income tax rate	$0.0 \ \% \ 0.0 \ \%$		

The Company assesses the likelihood that deferred tax assets will be realized. To the extent that realization is not likely, a valuation allowance is established. Based upon the Company's history of losses since inception, management believes that it is more likely than not that future benefits of deferred tax assets will not be realized.

At December 31, 2018 and 2017, the Company had approximately \$16,900,000 and \$8,400,000, respectively, of federal and state net operating losses that may be available to offset future taxable income. At December 31, 2018 approximately \$8,400,000 of federal net operating losses will expire from 2029 to 2037 and approximately \$8,500,000 have no expiration. In accordance with Section 382 of the Internal Revenue Code, the usage of the Company's net operating loss carry forwards are subject to annual limitations due to several greater than 50% ownership changes. The Section 382 limitations result in approximately \$28,200,000 of federal NOLs not being realizable as of December 31, 2018 and the cumulative reversal of approximately \$9,600,000 of net operating loss deferred tax assets.

The Company files income tax returns in the U.S. federal jurisdiction and the state of New York (also formerly Florida where the Company filed its final return in 2015), which remain subject to examination by the various taxing authorities beginning with the tax year ended December 31, 2015 (or the tax year ended December 31, 2009 if the Company were to utilize its NOLs). No tax audits were commenced or were in process during the years ended December 31, 2018 and 2017.

The Tax Cuts and Jobs Act tax reform legislation (the "Act") was enacted in December 2017 making significant changes to the Internal Revenue Code. Changes include but are not limited to (a) the reduction of the U.S. corporate income tax rate from 35% to 21% for tax years beginning after December 31, 2017; (b) the transition of U.S. international taxation from a worldwide tax system to a territorial system; and (c) a one-time transition tax on the mandatory deemed repatriation of foreign earnings. The latter two changes are not expected to impact the Company as its Cayman subsidiary generated cumulative losses and was dissolved in March 2017. The change in tax law required the Company to remeasure existing net deferred tax assets using the lower rate in the period of enactment resulting in an income tax expense of approximately \$2.3 million which is fully offset by the corresponding tax benefit of \$2.3 million from the reduction in the valuation allowance in the year ended December 31, 2017. There were no specific impacts of the Act that could not be reasonably estimated which the Company accounted for under the prior tax law.

#### Notes to Consolidated Financial Statements

Note 9 - Commitments and Contingencies

**Operating Lease** 

The Company is a party to a lease for 6,800 square feet of space located in Melville, New York (the "Melville Lease") with respect to its corporate and laboratory operations. The Melville Lease expires in March 2020 (subject to extension at the option of the Company for a period of five years) and calls for an annual base rental during the initial term ranging between \$132,600 and \$149,260. The aggregate base rent payable over the lease term will be recognized on a straight-line basis. In connection with the operating lease, the Company paid the landlord a security deposit of \$45,900, of which \$12,076 and \$11,724 were applied as rent payments in 2018 and 2017, respectively.

During the years ended December 31, 2018 and 2017, the Company received a credit of \$12,991 and \$21,237, respectively, towards its rent payments in connection with a tax rebate received by the landlord. The Company's rent expense amounted to \$122,739 and \$115,885 for the years ended December 31, 2018 and 2017, respectively. Rent expense is reflected in general and administrative expenses and research and development expenses in the consolidated statements of operations.

Future minimum payments under this operating lease agreement is as follows:

For the Years Ending	
December 31,	Amount
2019	\$147,257
2020	37,315
	\$184,572

#### **Consulting Agreements**

In March 2017, a previously expired agreement for business advisory services was further amended and the agreement was reinstated effective January 1, 2017. The agreement provided for an expiration date of December 31, 2017 (the "New Business Advisory Extended Term"). In consideration of the extension of the term of the consulting agreement, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 25,000 shares of common stock of the Company. See Note 10 – Stockholders' Deficiency – Stock Warrants for details associated with the issuance of warrants as compensation. Concurrently, the Company entered into an exchange agreement with the consultant pursuant to which \$30,000 of accrued consulting fees were exchanged for 10,000 shares of common stock of the Company and, in consideration thereof, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 10,000 shares of common stock of the Company at an exercise price of \$4.00 per share. The aggregate value of the shares and warrant was \$36,300, and accordingly the Company recorded a loss on settlement of payables of \$6,300 which is reflected within general and administrative expenses in the consolidated statements of operations. During each of the years ended December 31, 2018 and 2017, the Company recorded cash consulting fee expense of \$180,000 related to the business advisory agreement. In January 2018, the term of the business advisory agreement was extended to December 31, 2018. In consideration of the extension of the term of the business advisory agreement, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 30,000 shares of common stock of the Company at an exercise price of \$4.00 per share. The aggregate grant date value of the warrant of \$48,192 was recognized immediately as stock-based compensation expense which is reflected as consulting expense in the consolidated financial statements. Concurrently, the Company and the consultant agreed to exchange \$38,000 of accrued consulting fees for 19,000 shares of common stock of the Company and a two-year warrant for the purchase of 4,750 shares of common stock of the Company at an exercise price of \$4.00 per share, whose combined value is consistent with the carrying value of the liabilities being satisfied.

Notes to Consolidated Financial Statements

Note 9 - Commitments and Contingencies - Continued

Consulting Agreements - Continued

On July 10, 2018, as further amended on August 22, 2018 and October 25, 2018, the Company entered into a consulting agreement with a consultant for services through March 31, 2019. In consideration of the consulting services, the Company issued the consultant convertible notes in the aggregate principal amount of \$260,000 which will be earned and recognized ratably over their respective consulting agreement term. During the year ended December 31, 2018, the Company recorded an aggregate \$260,000 of marketing and promotion expense for services rendered with a corresponding credit to notes payable. The notes mature at dates between January 2019 and April 2019 and bear interest at the rate of 10% per annum, payable at maturity. Pursuant to the notes, the holder has the right, from time to time following the respective issue date, at its election, to convert all or part of the outstanding and earned principal and accrued interest into shares of common stock of the Company, at a price generally equal to the lesser of (i) \$1.27 or \$1.75 per share, depending on the note, and (ii) 65% of the fair market value of the Company's common stock, as defined. The Company may prepay the notes prior to the maturity date provided the principal is prepaid in full, plus interest, plus a prepayment premium of 25% on the principal.

In July 2018, the Company and a consultant agreed to further extend a previously expired consulting agreement from May 2018 to December 2018. In consideration of the extension of the term of the consulting agreement, the Company issued to the consultant an immediately vested five-year warrant for the purchase of 35,000 shares of common stock of the Company at an exercise price of \$4.00 per share. The aggregate grant date value of the warrant of \$43,106 was recognized immediately as stock-based compensation expense which is reflected as consulting expense in the consolidated financial statements.

See Note 10 – Stockholders' Deficiency – Warrant and Option Valuation and Note 10 – Stockholders' Deficiency – Stock Warrants regarding details for the valuation of warrants and the Black-Scholes valuation assumptions.

Scientific Advisory Services

In July 2018 and December 2018, the Company entered into agreements with certain consultants to serve as members of its Scientific Advisory Board and provide advice and guidance in connection with scientific matters relating to the Company's business. The agreements will continue until terminated by either the Company or the respective party for any reason upon ten days written notice. In connection with the agreements, the Company issued the advisors five-year and ten-year options to purchase up to an aggregate 100,000 shares of the Company's common stock at exercise prices ranging between \$1.25 to \$1.70 per share. The options vest as follows: (i) an aggregate 50,000 options vested immediately and (ii) an aggregate 50,000 options vest on the one-year anniversary of the grant date. The options had an aggregate grant date value of \$92,100 which is being amortized over the vesting term of the respective options. The options were subject to the Company's sequencing policy and, as a result, were recorded as derivative liabilities. In addition, on each one-year anniversary of the respective agreement date (as long as the consultant remains engaged), options to purchase an additional 5,000 shares are to be granted to the respective consultant which shall be exercisable for a period of five years from the respective dates of grant at exercise prices equal to the fair market value of the Company's common stock.

In October 2018, the Company entered into an agreement with a consultant to serve as Chairman of the Disc Advisory Committee of its Scientific Advisory Board (the "Disc Committee Chairman") and provide advice and guidance in connection with scientific matters relating to the Company's business. The agreement will continue until terminated by either party for any reason upon thirty days written notice. In connection with the agreement, the Company issued the Disc Committee Chairman a ten-year option to purchase up to 75,000 shares of the Company's common stock at an exercise price of \$1.80 per share. The option vests as follows: (i) 25,000 options vested immediately and (ii) 50,000 options vest upon the achievement of certain performance conditions. The option had a grant date value of \$129,800 which is being recognized over the respective expected vesting period. The option was subject to the Company's sequencing policy and, as a result, was recorded as a derivative liability.

See Note 10 - Stockholders' Deficiency – Options and Note 11 – Derivative Liabilities for additional details.

#### Notes to Consolidated Financial Statements

Note 9 - Commitments and Contingencies - Continued

Litigations, Claims and Assessments

In the normal course of business, the Company may be involved in legal proceedings, claims and assessments arising in the ordinary course of business, and as of December 31, 2018, none are expected to materially impact the Company's financial position.

The Company records legal costs associated with loss contingencies as incurred and accrues for all probable and estimable settlements.

Employment Agreements

Chief Executive Officer

The Company and its Chief Executive Officer ("CEO") are parties to an employment agreement that expires on December 31, 2019. Pursuant to the employment agreement, as amended, in the event that (a) the CEO's employment is terminated by the Company without cause, or (b) the CEO terminates his employment for "good reason" (each as defined in the employment agreement), or (c) the term of the CEO's employment agreement is not extended beyond December 31, 2019 and within three months of such expiration date, his employment is terminated by the Company without "cause" or the CEO terminates his employment for any reason, the CEO would be entitled to receive severance in an amount equal to his then annual base salary and certain benefits, plus \$100,000 (in lieu of bonus). Further, in the event that the CEO's employment is terminated by the Company without cause, or the CEO terminates his employment agreement), the CEO would be entitled to receive severance in an amount equal to one and one-half times his then annual base salary and certain benefits, plus \$300,000 (in lieu of bonus). Additionally, as part of the amended employment agreement, the CEO is entitled to new performance-based cash bonuses payable for the years ending December 31, 2018 and 2019, such that an aggregate of up to 50% of the CEO's then annual base salary per annum could be earned for such year pursuant to the

satisfaction of such goals. See below Note 9 – Commitments and Contingencies – Employment Agreements – Other for details regarding the CEO's bonus accruals.

Former Senior VP

In January 2018, the Company entered into an employment agreement with its then Senior Vice President of Planning and Business Development (the "Former Senior VP"). In October 2018, the Former Senior VP resigned from the Company. The Former Senior VP was entitled to any accrued unpaid salary and unused vacation days that was payable to him through his termination date pursuant to his employment agreement. As of December 31, 2018, the Company paid such liability due to the Former Senior VP. Additionally, the Former Senior VP's unvested option to purchase 500,000 shares was forfeited as of the termination date. See Note 10 – Stockholders' Deficiency – Stock Options for additional details.

Executive Vice President

In October 2018, the Company entered into an employment agreement with its new Executive Vice President and Chief Strategy Officer (the "Executive VP"). Pursuant to the employment agreement, in the event of the termination of the Executive VP's employment by the Company without "cause" or the resignation by the Executive VP for "good reason" (each as defined in the employment agreement), the Executive VP would be entitled to receive severance in an amount equal to six months of his then annual base salary. Additionally, in connection with the employment agreement, the Executive VP was granted a ten-year option to purchase up to 500,000 shares of the Company's common stock at an exercise price of \$1.42 per share. The option vests as follows: (i) 100,000 options vested immediately, (ii) 150,000 options vest upon the earlier of (a) the achievement of a certain performance condition or (b) the first anniversary of the date of grant, and (iii) 250,000 options vest on the second anniversary of the date of grant. The option had a grant date value of \$677,200 which is being recognized over the respective expected vesting period.

Notes to Consolidated Financial Statements

Note 9 - Commitments and Contingencies - Continued

Employment Agreements - Continued

Other

In February 2017 and March 2017, the Company's Compensation Committee and Board of Directors, respectively, approved the following associated with performance-based cash bonuses for certain of the Company's officers and current employees: (i) new performance-based cash bonuses payable for the year ending December 31, 2017 such that an aggregate of up to \$402,500 could be earned for such year pursuant to the satisfaction of such goals; and (ii) the amendment of the performance-based cash bonuses for the year ended December 31, 2016 such that an aggregate of up to \$322,000 could be earned for such year pursuant to the satisfaction of such goals. Also, pursuant to the amendment of the performance-based cash bonuses, the Company's officers and certain employees' achievement date of 2016 milestones was extended from January 31, 2017 to July 31, 2017. As of December 31, 2018 and 2017, the Company accrued approximately \$35,000 and \$87,000, respectively, for 2016 bonus milestones which were achieved and \$0 for 2017 bonus milestones since such milestones were deemed not probable to be achieved.

In May 2018, the Company's Compensation Committee and Board of Directors, respectively, approved new performance-based cash bonuses payable for the year ending December 31, 2018 for certain of the Company's officers and employees, such that, an aggregate of up to \$400,938 could be earned for 2018 pursuant to the satisfaction of such goals. As of December 31, 2018, the Company accrued approximately \$56,000 for 2018 bonus milestones which were achieved but remain unpaid.

As of December 31, 2018, three employees other than the CEO have "at-will" employment agreements with the Company that provide for aggregate cash severance payments of \$368,750, payable over twelve months, upon involuntary termination. As of December 31, 2017, two employees other than the CEO have "at-will" employment agreements with the Company that provide for aggregate cash severance payments of \$175,000, payable over twelve months, upon involuntary termination.

Note 10 - Stockholders' Deficiency

## Authorized Capital

As of December 31, 2018, the Company was authorized to issue 75,000,000 shares of common stock, \$0.001 par value, and 20,000,000 shares of preferred stock, \$0.01 par value. The holders of the Company's common stock are entitled to one vote per share. Subject to the rights of holders of preferred stock, if any, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of legally available funds. Subject to the rights of holders of preferred stock, if any, upon liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share ratably in all assets of the Company that are legally available for distribution. No preferred stock has been issued through December 31, 2018.

## 2010 Equity Participation Plan

During the year ended December 31, 2018, the Compensation Committee and the Company's stockholders, respectively, approved an increase in the number of shares authorized to be issued pursuant to the Company's 2010 Equity Participation Plan from 4,250,000 to 10,000,000. As of December 31, 2018, 5,204,132 shares were reserved for future grant under the Company's 2010 Equity Participation Plan.

Notes to Consolidated Financial Statements

Note 10 - Stockholders' Deficiency - Continued

Warrant and Option Valuation

The Company has computed the fair value of warrants and options granted using the Black-Scholes option pricing model. Option forfeitures are estimated at the time of valuation and reduce expense ratably over the vesting period. This estimate will be adjusted periodically based on the extent to which actual option forfeitures differ, or are expected to differ, from the previous estimate, when it is material. The Company estimated forfeitures related to option grants at an annual rate ranging from 0% to 5% for options granted during the years ended December 31, 2018 and 2017. The expected term used for warrants and options issued to non-employees is the contractual life and the expected term used for options issued to employees and directors is the estimated period of time that options granted are expected to be outstanding. The Company utilizes the "simplified" method to develop an estimate of the expected term of "plain vanilla" employee option grants. The Company is utilizing an expected volatility figure based on a review of the historical volatilities, over a period of time, equivalent to the expected life of the instrument being valued, of similarly positioned public companies within its industry. The risk-free interest rate was determined from the implied yields from U.S. Treasury zero-coupon bonds with a remaining term consistent with the expected term of the instrument being valued.

#### Common Stock and Warrant Offerings

During the year ended December 31, 2017, the Company issued an aggregate of 361,335 shares of common stock of the Company and five-year immediately vested warrants to purchase an aggregate of 371,335 shares of common stock of the Company at an exercise price of \$4.00 per share to investors for aggregate gross proceeds of \$1,084,000. The warrants had an aggregate grant date fair value of \$601,595.

During the year ended December 31, 2018, the Company issued an aggregate of 70,000 shares of common stock of the Company and five-year immediately vested warrants to purchase an aggregate of 70,000 shares of common stock of the Company at an exercise price of \$3.50 per share to investors for aggregate gross proceeds of \$175,000. The warrants had an aggregate grant date fair value of \$87,300.

# Compensatory Common Stock Issuances

See Note 6 – Accrued Expenses and Other Current Liabilities for details regarding exchanges of accrued expenses for shares of common stock and warrants to a consultant and certain directors of the Company. See Note 9 – Commitments and Contingencies for details regarding an exchange of accrued consulting fees for shares of common stock and warrants.

During the year ended December 31, 2017, the Company issued 10,000 shares of immediately vested common stock valued at \$20,000 to a consultant for services rendered during the year.

During the year ended December 31, 2018, the Company issued 35,000 shares of immediately vested common stock valued at \$52,500 to a consultant for services rendered during the year.

#### Stock Warrants

#### Warrant Compensation

During the year ended December 31, 2017, the Company extended a previously expired agreement with a consultant from January 1, 2017 to December 31, 2017. In connection with this extension, the Company issued to the consultant an immediately vested five-year warrant to purchase 25,000 shares of common stock at an exercise price of \$4.00 per share. The issuance date fair value of \$40,763 was immediately recognized as stock-based compensation expense which is reflected in consulting expense in the consolidated statements of operations.

During the year ended December 31, 2017, the Company extended a previously expired agreement with a consultant from January 1, 2017 to June 30, 2017. In connection with this extension, the Company issued a five-year immediately vested warrant to purchase 20,000 shares of common stock at an exercise price of \$4.50 per share. The warrant grant date fair value of \$30,440 was recognized immediately as stock-based compensation expense which is reflected as consulting expense in the consolidated statements of operations.

Notes to Consolidated Financial Statements

Note 10 - Stockholders' Deficiency - Continued

Stock Warrants - Continued

Warrant Compensation - Continued

During the year ended December 31, 2017, the Company issued an immediately vested five-year warrant to purchase 25,000 shares of common stock at an exercise price of \$4.00 per share to a consultant for services rendered. The warrant grant date fair value of \$40,275 was recognized immediately as stock-based compensation expense and is reflected as consulting expense in the consolidated statements of operations.

During the year ended December 31, 2017, the Company extended a previously expired agreement with a consultant from October 1, 2017 to May 31, 2018. In connection with this extension, the Company issued a five-year immediately vested warrant to purchase 35,000 shares of common stock at an exercise price of \$4.00 per share. The warrant grant date fair value of \$56,434 was recognized immediately as stock-based compensation expense which is reflected as consulting expense in the consolidated statements of operations.

During the year ended December 31, 2018, the Company issued an immediately vested five-year warrant to purchase 75,000 shares of common stock of the Company at an exercise price of \$2.00 per share to a consultant for services rendered. The warrant grant date fair value of \$46,658 was recognized immediately as stock-based compensation expense and is reflected as consulting expense in the consolidated statements of operations with a corresponding credit to derivative liabilities as a result of the warrant being subject to the Company's sequencing policy. See Note 11 – Derivative Liabilities for additional details.

See Note 9 - Commitments and Contingencies for additional details associated with the issuance of common stock and warrants in connection with consulting agreement extensions.

The Company recorded stock–based compensation expense of \$137,956 and \$167,912 during the years ended December 31, 2018 and 2017, respectively, related to stock warrants issued as compensation, which is reflected as consulting expense in the consolidated statements of operations. As of December 31, 2018, there was no unrecognized stock-based compensation expense related to stock warrants.

#### Warrant Modifications and Exercises

During the year ended December 31, 2017, the Company issued an aggregate of 410,625 shares of common stock pursuant to the exercise of warrants for aggregate gross proceeds of \$821,250. The shares were issued pursuant to a warrant repricing program under which the exercise price for certain outstanding and exercisable warrants for the purchase of shares of common stock of the Company was reduced to \$2.00 per share (reduced from exercises prices ranging from \$4.00 to \$30.00 per share). In connection with the share issuances, the Company issued to the purchasers of such shares additional two-year warrants for the purchase of an aggregate of 102,656 shares of common stock of the Company recognized a warrant modification charge of \$6,618 during the year ended December 31, 2017, which represents the incremental value of the modified warrants and additional warrants issued as compared to the original warrants, both valued as of the respective modification dates.

During the year ended December 31, 2017, with respect to a warrant held by an investor, the Company agreed that (i) the conditions to the exercisability of the warrant for tranches to purchase an aggregate of 35,000 shares were eliminated, such that the entire warrant to purchase 50,000 shares of common stock was exercisable, and (ii) the exercise price of the warrant was reduced from an exercise price of \$30.00 per share to \$3.50 per share. Concurrent with the modification of the warrant, the investor exercised the warrant in full for aggregate gross proceeds to the Company of \$175,000. The Company recognized a warrant modification charge of \$4,500 during the year ended December 31, 2017, which represents the incremental value of the modified warrant as compared to the original warrant, both valued as of the respective modification dates which is reflected in warrant modification expense in the consolidated statement of operations.

Notes to Consolidated Financial Statements

Note 10 - Stockholders' Deficiency - Continued

Stock Warrants - Continued

Warrant Modifications and Exercises - Continued

During the year ended December 31, 2017, with respect to warrants held by certain lenders, the Company agreed to extend the expiration dates of certain warrants to purchase an aggregate of 53,291 shares of the Company's common stock and reduce the exercise price of certain warrants to purchase an aggregate of 1,233,931 shares of the Company's common stock. The expiration dates of the warrants were extended from dates ranging between December 31, 2017 through December 29, 2021 to new expiration dates ranging between December 31, 2019 and June 28, 2022. The exercise price of certain warrants was reduced from an exercise price ranging between \$4.50 and \$10.00 per share to \$4.00 per share. The Company recognized a warrant modification charge of \$18,962 during the year ended December 31, 2017, which represents the incremental value of the modified warrants as compared to the original warrants, both valued as of the respective modification dates. The charge is reflected in warrant modification expense in the consolidated statements of operations. Of the warrants with the reduced exercise prices to purchase an aggregate 1,233,931 shares of the Company's common stock, 1,219,444 of the warrants to purchase the Company's common stock were reduced as consideration of extending the maturity dates of certain related party notes payable and are reflected as debt discount, net of notes payable in the consolidated balance sheet. See Note 7 – Notes Payable – Related Party Notes for details.

During the year ended December 31, 2018, the Company issued an aggregate of 207,084 shares of common stock pursuant to the exercise of warrants for aggregate gross proceeds of \$414,168. The shares were issued pursuant to a warrant repricing program under which the exercise price for certain outstanding and exercisable warrants for the purchase of shares of common stock of the Company was reduced to \$2.00 per share (reduced from exercises prices ranging from \$4.00 to \$5.00 per share). In connection with the share issuances, the Company issued to the purchasers of such shares additional two-year warrants for the purchase of an aggregate of 51,771 shares of common stock of the Company did not recognize a warrant modification charge as there was no incremental value of the modified warrants and additional warrants issued as compared to the original warrants, both valued as of the respective modification dates.

During the year ended December 31, 2018, the Company reduced the exercise price and extended the expiration date of a certain warrant held by an investor for the purchase of 10,000 shares of common stock of the Company. The exercise price of the warrant was reduced from \$5.00 per share to \$4.00 per share and the expiration date of the warrant was extended from May 2021 to May 2023. The Company recognized a warrant modification charge of \$3,100, which represents the incremental value of the modified warrants as compared to the original warrants, both valued as of the respective modification dates which is reflected in warrant modification expense in the consolidated statements of operations.

During the year ended December 31, 2018, with respect to warrants held by a certain related party, the Company agreed to extend the expiration dates and reduce the exercise price of certain warrants to purchase an aggregate 844,444 shares of the Company's common stock as consideration of extending the maturity dates of certain notes payable. The expiration dates of the warrants were extended from December 2018 to December 2019. The exercise prices of the warrants were reduced from \$4.00 per share to \$1.50 per share. The Company recognized a warrant modification charge of \$244,889 during the year ended December 31, 2018, which represents the incremental value of the modified warrants as compared to the original warrants, both valued as of the respective modification dates. The incremental modification expense has been recorded as debt discount and is being amortized over the remaining extended term of the respective note. See Note 7 – Notes Payable – Related Party Notes for details.

Notes to Consolidated Financial Statements

Note 10 - Stockholders' Deficiency - Continued

Stock Warrants - Continued

Warrant Activity Summary

In applying the Black-Scholes option pricing model to warrants granted, the Company used the following assumptions:

	For the Years Ended			
	December 31,			
	2018		2017	
Risk free interest rate	1.92% - 2.91	%	1.74% - 2.07	%
Contractual term (years)	1.98 - 5.00		2.00 - 5.00	
Expected volatility	128% - 141	%	120% - 132	%
Expected dividends	0.00	%	0.00	%

The weighted average estimated fair value of the warrants granted during the years ended December 31, 2018 and 2017 was approximately \$1.06 and \$1.54 per share, respectively.

See Note 6 – Accrued Expenses and Other Current Liabilities for details regarding exchanges of accrued expenses for shares of common stock and warrants to a consultant and certain directors of the Company. See Note 7 – Notes Payable for details associated with the issuance of warrants in connection with note issuances and the exchange of notes payable. See Note 9 – Commitments and Contingencies – Consulting Agreements for details associated with the issuance of warrants in connection with common Stock and Warrant Offerings for details associated with the issuance of warrants in connection with common stock and Warrant Offerings.

A summary of the warrant activity during the year ended December 31, 2018 is presented below:

		Weighted Average	Weighted Average Remaining	Aggregate
	Number of	Exercise	Life	Intrinsic
	Warrants	Price	In Years	Value
Outstanding, December 31, 2017	3,435,134	\$ 4.47		
Issued	266,521	3.31		
Exercised	(207,084)	2.00		
Expired	(11,168)	42.72		
Outstanding, December 31, 2018	3,483,403	\$ 3.63	2.1	\$ -
Exercisable, December 31, 2018	3,483,403	\$ 3.63	2.1	\$ -

Notes to Consolidated Financial Statements

Note 10 – Stockholders' Deficiency – Continued

Stock Warrants - Continued

Warrant Activity Summary - Continued

The following table presents information related to stock warrants at December 31, 2018:

Warrants Outstanding		Warrants		
		Exercisable		
		Weig	hted	
	Outstanding		Exercisable	
Exercise	Number of	Rema Life	ining Number of	
Price	Warrants	In Years	Warrants	
\$1.50 - \$1.99	844,444	1.0	844,444	
\$2.00 - \$2.99	75,000	4.8	75,000	
\$3.00 - \$3.99	70,000	4.5	70,000	
\$4.00 - \$4.99	2,179,635	2.4	2,179,635	
\$5.00 - \$5.99	195,989	2.5	195,989	
\$6.00 - \$7.99	40,000	1.6	40,000	
\$8.00 - \$9.99	2,500	0.9	2,500	
\$10.00 - \$14.99	40,400	1.2	40,400	
\$15.00 - \$19.99	35,435	0.7	35,435	
	3,483,403	2.1	3,483,403	

Stock Options

In applying the Black-Scholes option pricing model to stock options granted, the Company used the following assumptions:

	For the Years Ended December 31,			
	2018		2017	
Risk free interest rate	2.44% - 3.15	%	1.77% - 1.88	%
Expected term (years)	5.00 - 10.00		5.50 - 6.00	
Expected volatility	129% - 141	%	120% - 130	%
Expected dividends	0.00	%	0.00	%

The weighted average estimated fair value of the stock options granted during the years ended December 31, 2018 and 2017 was approximately \$1.60 and \$2.75 per share, respectively.

On February 14, 2017, the Compensation Committee reduced the exercise price of outstanding options for the purchase of an aggregate of 1,219,450 shares of common stock of the Company (with exercise prices ranging between \$5.70 and \$30.00 per share) to \$4.70 per share, which was the closing price for the Company's common stock on February 13, 2017, as reported by the OTCQB. The exercise price reduction related to options held by, among others, the Company's executive officers and directors. The incremental value of the modified options compared to the original options, both valued as of the respective modification date, of \$430,394 is being recognized over the vesting term of the options.

During the year ended December 31, 2017, the Company issued ten-year options to employees, directors, and an advisor of the Company to purchase an aggregate of 1,117,000 shares of common stock at exercise prices ranging between \$2.80 to \$3.35 per share. The options vest as follows: (i) options for the purchase of 283,336 shares vested immediately, (ii) options for the purchase of 372,338 shares vested on the one-year anniversary of the issuance date, (iii) options for the purchase of 372,332 shares vest on the two-year anniversary of the issuance date and (iv) options for the purchase of 88,994 shares vest on the three-year anniversary of the issuance date. The options had an aggregate grant date value of \$3,070,600 which is being amortized over the vesting term of the respective options.

Notes to Consolidated Financial Statements

Note 10 – Stockholders' Deficiency – Continued

Stock Options - Continued

In January 2018, the Company granted a ten-year option to a consultant of the Company to purchase 10,000 shares of the Company's common stock at an exercise price of \$3.20 per share. The option vested ratably over three years on the issuance date anniversaries. The option had an aggregate grant date value of \$33,700. During the year ended December 31, 2018, the option was forfeited in connection with the consultant's termination and accordingly, no expense related to the option was recognized.

In January 2018, the Company granted the Former Senior VP a ten-year option to purchase 500,000 shares of the Company's common stock at an exercise price of \$3.40 per share. The option grant provided for vesting based upon the achievement of a certain performance condition. The grant date value of the option was \$1,491,300, which was recognizable to the extent such milestone was deemed probable to occur. See Note 9 – Commitments and Contingencies for additional details regarding the Former Senior VP's resignation and termination of the option.

In October 2018, the Company issued ten-year options to employees and directors of the Company to purchase an aggregate of 885,000 shares of common stock at an exercise price of \$1.23 per share. The options vest as follows: (i) options for the purchase of 216,667 shares vested immediately, (ii) options for the purchase of 295,002 shares vest on the one-year anniversary of the issuance date, (iii) options for the purchase of 295,000 shares vest on the two-year anniversary of the issuance date and (iv) options for the purchase of 78,331 shares vest on the three-year anniversary of the issuance date. The options had an aggregate grant date value of \$943,100 which is being amortized over the vesting term of the respective options.

In October 2018 and December 2018, the Company entered into agreements with certain members of its Scientific Advisory Board to provide advice and guidance in connection with scientific matters relating to the Company's business. In connection with the agreements, the Company issued the advisors ten-year options to purchase up to an aggregate 110,000 shares of the Company's common stock at an exercise price of \$1.23 per share. The options vest ratably over three years on the issuance date anniversaries. The options had an aggregate grant date value of \$125,800. The Company recognizes the fair value of the options as consulting expenses over the respective vesting terms of the

options. The options were subject to the Company's sequencing policy and, as a result, were recorded as derivative liabilities. The Company See Note 11 – Derivative Liabilities for additional details.

See Note 9 – Commitments and Contingencies for details regarding the issuance of options to certain Scientific Advisory Board members and the Executive VP.

A summary of the option activity during the year ended December 31, 2018 is presented below:

			Weighted	
		Weighted	Average	
		Average	Remaining	Aggregate
	Number of	Exercise	Life	Intrinsic
	Options	Price	In Years	Value
Outstanding, December 31, 2017	3,122,202	\$ 4.25		
Granted	2,180,000	1.81		
Forfeited	(598,417)	3.50		
Outstanding, December 31, 2018	4,703,785	\$ 3.21	8.0	\$ -
Exercisable, December 31, 2018	2,952,460	\$ 4.03	7.1	\$ -

#### Notes to Consolidated Financial Statements

Note 10 – Stockholders' Deficiency – Continued

Stock Options - Continued

The following table presents information related to stock options at December 31, 2018:

Options Outstanding		Options		
		Exerc	Exercisable	
		Weig	hted	
	Outstanding	Avera	a <b>E</b> cercisable	
Exercise	Number of	Rema Life	ining Number of	
Price	Options	In Years	Options	
\$1.00 - \$1.99	1,670,000	9.6	391,667	
\$2.00 - \$2.99	187,834	8.2	64,503	
\$3.00 - \$3.99	1,615,334	7.9	1,268,673	
\$4.00 - \$4.99	1,153,117	5.5	1,150,117	
\$5.00 - \$5.99	5,000	5.5	5,000	
\$6.00 - \$19.99	37,500	5.0	37,500	
\$20.00 - \$30.00	35,000	3.2	35,000	
	4,703,785	7.1	2,952,460	

The following table presents information related to stock option expense:

		Weighted
		Average
		Remaining
For the Years Ended	Unrecognized at	Amortization
December 31,		Period

			December	
			31,	
	2018	2017	2018	(Years)
Consulting	\$965,916	\$1,558,392	\$ 502,144	0.6
Research and development	340,471	481,041	551,073	1.5
General and administrative	902,542	1,373,459	963,729	1.0
	\$2,208,929	\$3,412,892	\$ 2,016,946	1.0

#### Notes to Consolidated Financial Statements

Note 11 - Derivative Liabilities

The following table sets forth a summary of the changes in the fair value of Level 3 derivative liabilities that are measured at fair value on a recurring basis:

Beginning balance as of January 1, 2017	\$-
Issuance of derivative liabilities	332,131
Reclassification of derivative liabilities to equity	(9,019)
Change in fair value of derivative liabilities	(107,039)
Ending balance as of December 31, 2017	\$216,073
Issuance of derivative liabilities	3,875,231
Extinguishment of derivative liabilities in connection with convertible note repayments and exchanges	(3,120,833)
Change in fair value of derivative liabilities	229,323
Reclassification of derivative liabilities to equity	(105,187)
Ending balance as of December 31, 2018	\$1,094,607

In applying the Multinomial Lattice and Black-Scholes option pricing models to derivatives issued and outstanding during the years ended December 31, 2018 and 2017, the Company used the following assumptions:

	For the Years Ended			
	December 31,			
	2018		2017	
Risk free interest rate	1.22% - 2.94	%	1.22% - 2.07	%
Expected term (years)	0.01 - 5.00		0.00 - 5.00	
Expected volatility	100% - 208	%	123% - 130	%
Expected dividends	0.00	%	0.00	%

During the year ended December 31, 2018, the Company recorded new derivative liabilities in the aggregate amounts of \$3,631,705, \$121,657 and \$121,869 related to the ECOs of certain convertible notes payable, warrants and stock options subject to sequencing, respectively. During the year ended December 31, 2017, the Company recorded new derivative liabilities in the aggregate amounts of \$252,117 and \$80,014 related to the ECOs of certain convertible notes payable and warrants, respectively. See Note 7 – Notes Payable – Convertible Notes and Other Notes for

additional details. See Note 9 – Commitments and Contingencies for a stock option issued and deemed to be a derivative liability. See Note 10 – Stockholders' Deficiency for warrants issued and deemed to be derivative liabilities.

During the year ended December 31, 2018, the Company extinguished an aggregate of \$3,120,833 of derivative liabilities in connection with repayments and exchanges of certain convertible notes payable into shares of the Company's common stock. See Note 7 – Notes Payable – Convertible Notes and Other Notes for additional details.

During the year ended December 31, 2017, the Company reclassified \$9,019 of derivative liabilities to equity in connection with the conversion of convertible notes payable into shares of common stock.

During the year ended December 31, 2018, the Company reclassified an aggregate of \$105,187 of derivative liabilities to equity as a result of a change in the sequencing status.

On December 31, 2018, the Company recomputed the fair value of ECOs recorded as derivative liabilities to be \$852,454. The Company recorded a loss on the change in fair value of these derivative liabilities of \$310,710 for the year ended December 31, 2018.

#### Notes to Consolidated Financial Statements

#### Note 11 - Derivative Liabilities - Continued

On December 31, 2018, the Company recomputed the fair value of the derivative liabilities related to outstanding warrants to be \$120,284. These warrants are either redeemable for cash equal to the Black-Scholes value, as defined, at the election of the warrant holder upon a fundamental transaction pursuant to the warrant terms or were issued subsequent to the commencement of sequencing. The Company recorded a gain on the change in fair value of these derivative liabilities of \$81,387 for the year ended December 31, 2018.

On December 31, 2018, the Company recomputed the fair value of the derivative liabilities related to outstanding consultant stock options to be \$121,869. The stock options were issued subsequent to the commencement of sequencing and the fair value of the options are being recorded in consulting expenses in the consolidated statements of operations over the respective expected vesting period with a corresponding credit to derivative liabilities. See Note 10 – Stockholders' Deficiency -Stock Options for additional details.

Note 12 - Subsequent Events

#### Stock Options

Subsequent to December 31, 2018, the Company issued a ten-year option to a certain Scientific Advisory Board member of the Company to purchase 70,000 shares of common stock of the Company at an exercise price of \$1.00 per share. The option vests as follows: (i) an option for the purchase of 23,334 shares vested immediately, (ii) an option for the purchase of 23,333 shares will vest on the one-year anniversary of the issuance date, and (iii) an option for the purchase of 23,333 shares will vest on the two-year anniversary of the issuance date. The fair value of the option will be recognized over the vesting period.

Subsequent to December 31, 2018, the Board of Directors reduced the exercise price of outstanding stock options for the purchase of an aggregate of 4,631,700 shares of common stock of the Company (with exercise prices ranging between \$1.00 and \$4.70 per share) to \$0.75 per share, which was the closing price for the Company's common stock

on the day prior to determination, as reported by the OTCQB market. The exercise price reduction related to options held by, among others, the Company's directors, advisors and employees. The incremental value of the modified options compared to the original options, both valued as of the respective modification date, will be recognized over the vesting term of the options.

#### Consulting Agreement

Subsequent to December 31, 2018, the Company and a consultant agreed to further extend a previously expired consulting agreement from January 2019 to December 2019. In connection with the extension, the Company issued to the consultant a five-year, immediately vested warrant for the purchase of 100,000 shares of the Company's common stock at an exercise price of \$1.00 per share.

#### Settlement Agreement

Subsequent to December 31, 2018, the Company entered into a settlement agreement with a certain consultant, pursuant to which \$46,500 of previously recorded consulting fees were exchanged for 10,000 shares of the Company's common stock and a \$10,000 cash payment.

#### Common Stock and Warrant Offering

Subsequent to December 31, 2018, the Company issued 1,000,000 shares of common stock of the Company, a five-year immediately vested warrant to purchase 500,000 shares of common stock of the Company at an exercise price of \$0.85 per share and a one-year immediately vested warrant to purchase 500,000 shares of common stock of the Company at an exercise price of \$0.70 per share to an investor for gross proceeds of \$600,000.

#### Notes to Consolidated Financial Statements

Note 12 - Subsequent Events - Continued

Notes Payable

Subsequent to December 31, 2018, the Company issued a convertible promissory note in the principal amount of \$450,000 to certain related parties. The convertible note bears interest at the rate of 15% per annum, payable at maturity, with an original maturity date in August 2019. The note is convertible, at the option of the lenders, into shares of common stock of the Company at a conversion price of \$0.60 per share, subject to adjustment, and a five-year warrant for the purchase of a number of shares equal to the number of shares issued upon the conversion of the principal amount of the note. The warrant provides for an exercise price of \$0.80 per share, subject to adjustment.

Subsequent to December 31, 2018, the Company issued convertible promissory notes in the aggregate principal amount of \$575,000 to certain lenders for aggregate cash proceeds of \$575,000. The convertible notes bear interest at the rate of 15% per annum, payable at maturity, with original maturity dates in July 2019. Each note is convertible, at the option of the lender, into shares of common stock of the Company at a conversion price of \$0.60 per share, subject to adjustment, and a five-year warrant for the purchase of a number of shares equal to the number of shares issued upon the conversion of the principal amount of the respective note. The warrant provides for an exercise price of \$0.80 per share, subject to adjustment.

Subsequent to December 31, 2018, the Company issued convertible promissory notes in the aggregate principal amount of \$2,205,000 for aggregate cash proceeds of \$2,048,918. The convertible notes bear interest at rates ranging from 8% to 12% per annum, payable at maturity, with original maturity dates ranging between July 2019 to March 2020. The convertible notes are convertible as follows: (i) \$805,000 of aggregate principal and the respective accrued interest is convertible into shares of the Company's common stock at the election of the holder after the 180th day following the issue date at a conversion price generally equal to 58% of the fair value of the Company's common stock, (ii) \$170,000 of aggregate principal and the respective accrued interest is convertible into shares of the holder at any time immediately on or after the issue date until the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share or after the 180<sup>th</sup> day following issuance at a conversion price equal to \$0.25 per share of the Company's common stock at the election of the holder for the first six months at a fixed conversion price ranging from \$1.00 to \$2.00 per share, and thereafter, at a conversion price gen

issuance of a certain convertible promissory note, the Company issued to the lender a five-year, immediately vested warrant for the purchase of 40,000 shares of the Company's common stock at an exercise price of \$1.00 per share. The grant date fair value of the warrant will be recorded as a debt discount and will be amortized over the term of the note. In the event that the Company elects to prepay any of the respective notes during the first ninety-day period following the issue date, the holder is entitled to receive a prepayment premium of up to 30%, depending on the note, of the then outstanding principal balance plus accrued interest. In the event that the Company elects to prepay any of the issue date, the holder is entitled to receive a prepayment premium of up to 30%, depending on the notes during the second ninety-day period following the issue date, the holder is entitled to receive a prepayment premium of up to 35%, depending on the note, of the then outstanding principal balance plus accrued interest.

Subsequent to December 31, 2018, a certain lender to the Company acquired another promissory note issued by the Company in the outstanding amount of \$148,014 (inclusive of accreted interest of \$23,014) from a different lender to the Company. The Company exchanged the acquired note for a new convertible note in the principal amount of \$148,014 which accrues interest at a rate of 12% per annum, payable on the maturity date in March 2020.

Subsequent to December 31, 2018, the Company and a certain related party agreed to extend the maturity date of a certain promissory note with a principal balance of \$30,000 that was past maturity from December 2018 to December 2019.

Subsequent to December 31, 2018, the Company and a certain lender agreed to extend the maturity date of a certain promissory note with a principal balance of \$125,000 that was past maturity from January 2019 to December 2019. In connection with the extension, the Company issued the lender 10,000 shares of the Company's common stock. The issuance date fair value of the common stock will be recorded as debt discount and will be amortized over the term of the note.

Subsequent to December 31, 2018, the Company and certain lenders agreed to exchange an aggregate principal amount of \$619,391 and aggregate accrued interest of \$24,509 of certain convertible notes payable for an aggregate of 1,928,400 shares of the Company's common stock at exchange prices ranging from \$0.28 to \$0.42 per share.

Subsequent to December 31, 2018, the Company repaid an aggregate principal amount of \$1,065,000 of notes payable, \$55,169 of the respective aggregate accrued interest and an aggregate of \$134,636 of prepayment premiums.