

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2019

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File No. **000-53078**

Bone Biologics Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or formation)

42-1743430

(I.R.S. employer
identification number)

2 Burlington Woods Drive, Ste 100, Burlington, MA 01803

(Address of principal executive offices and Zip Code)

(781) 552-4452

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the issuer was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input checked="" type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

Securities registered pursuant to Section 12(b) of the Act: None

As of August 8, 2019, there were 30,682,590 shares of the issuer's common stock, \$0.001 par value, outstanding.

Bone Biologics Corporation
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NOTE ON FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (this “Form 10-Q”) contains forward-looking statements. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements. These forward-looking statements are subject to a number of risks, uncertainties and assumptions. For a more detailed listing of some of the risks and uncertainties facing the Company, please see our Current Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the Securities and Exchange Commission (“SEC”) on March 29, 2019.

All statements other than historical facts contained in this report, including statements regarding our future financial position, capital expenditures, cash flows, business strategy and plans and objectives of management for future operations are forward-looking statements. The words “anticipated,” “believe,” “expect,” “plan,” “intend,” “seek,” “estimate,” “project,” “could,” “may,” and similar expressions are intended to identify forward-looking statements. These statements include, among others, information regarding future operations, future capital expenditures, and future net cash flow. Such statements reflect our management’s current views with respect to future events and financial performance and involve risks and uncertainties, including, without limitation, our ability to raise additional capital to fund our operations, obtaining Food and Drug Administration (“FDA”) and other regulatory authorization to market our drug and biological products, successful completion of our clinical trials, our ability to achieve regulatory authorization to market our lead product NELL-1, our reliance on third party manufacturers for our drug products, market acceptance of our products, our dependence on licenses for certain of our products, our reliance on the expected growth in demand for our products, exposure to product liability and defect claims, development of a public trading market for our securities, and various other matters, many of which are beyond our control.

Should one or more of these risks or uncertainties occur, or should underlying assumptions prove to be incorrect, actual results may vary materially and adversely from those anticipated, believed, estimated or otherwise indicated. Consequently, all of the forward-looking statements made in this Annual Report are qualified by these cautionary statements and accordingly there can be no assurances made with respect to the actual results or developments. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

Unless expressly indicated or the context requires otherwise, the terms “Company,” “we,” “us,” and “our” in this document refer to Bone Biologics Corporation, a Delaware corporation, and, its wholly owned subsidiary as defined under the heading “Management’s Discussion and Analysis” in this Form 10-Q.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

Bone Biologics Corporation

Condensed Consolidated Balance Sheets

	<u>June 30, 2019</u> (unaudited)	<u>December 31, 2018</u>
Assets		
Current assets		
Cash	\$ 176,372	\$ 955,374
Prepaid expenses	90,023	85,288
Total current assets	<u>266,395</u>	<u>1,040,662</u>
Property and equipment, net	-	50
Total assets	<u>\$ 266,395</u>	<u>\$ 1,040,712</u>
Liabilities and Stockholders' Deficit		
Current liabilities		
Accounts payable and accrued expenses	\$ 259,003	\$ 197,220
Notes payable – related party	10,700,000	9,000,000
Deferred compensation	162,500	441,667
Total current liabilities	<u>11,121,503</u>	<u>9,638,887</u>
Commitments and Contingencies		
Stockholders' deficit		
Preferred Stock, \$0.001 par value per share; 20,000,000 shares authorized; none issued or outstanding at June 30, 2019 and December 31, 2018	-	-
Common stock, \$0.001 par value per share; 100,000,000 shares authorized; 30,065,903 and 26,448,881 shares issued and outstanding at June 30, 2019 and December 31, 2018, respectively	30,066	26,449
Additional paid-in capital	55,062,492	54,990,797
Accumulated deficit	(65,947,666)	(63,615,421)
Total stockholders' deficit	<u>(10,855,108)</u>	<u>(8,598,175)</u>
Total liabilities and stockholders' deficit	<u>\$ 266,395</u>	<u>\$ 1,040,712</u>

See accompanying notes to unaudited condensed consolidated financial statements.

Bone Biologics Corporation

Condensed Consolidated Statements of Operations

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
	(unaudited)	(unaudited)	(unaudited)	(unaudited)
Revenues	\$ -	\$ -	\$ -	\$ -
Cost of revenues	-	-	-	-
Gross profit	-	-	-	-
Operating expenses				
Research and development	417,565	187,460	981,898	556,469
General and administrative	261,692	672,690	886,597	1,400,404
Total operating expenses	679,257	860,150	1,868,495	1,956,873
Loss from operations	(679,257)	(860,150)	(1,868,495)	(1,956,873)
Other expenses				
Interest expense, net – related party	(244,695)	(401,576)	(462,150)	(759,493)
Loss before provision for income taxes	(923,952)	(1,261,726)	(2,330,645)	(2,716,366)
Provision for income taxes	1,600	1,600	1,600	1,600
Net Income (Loss)	\$ (925,552)	\$ (1,263,326)	\$ (2,332,245)	\$ (2,717,966)
Weighted average shares outstanding – basic and diluted	7,299,944	4,421,247	7,299,944	4,384,330
Loss per share – basic and diluted	\$ (0.13)	\$ (0.29)	\$ (0.32)	\$ (0.62)

See accompanying notes to unaudited condensed consolidated financial statements.

Bone Biologics Corporation

Consolidated Statement of Stockholders' Deficit
For the three and six months ended June 30, 2019
(unaudited)

	<i>Common Stock</i>		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount			
Balance at December 31, 2018	26,448,881	\$ 26,449	\$ 54,990,797	\$ (63,615,421)	\$ (8,598,175)
Fair value of vested stock options issued to employees and directors	-	-	25,724	-	25,724
Fair value of unvested stock options issued to consultant	-	-	5,965	-	5,965
Shares issued to related party for collateral pursuant to secured convertible note agreement	1,489,362	1,489	-	-	1,489
Net Loss	-	-	-	(1,406,693)	(1,406,693)
Balance at March 31, 2019	27,938,243	27,938	55,022,486	(65,022,114)	(9,971,690)
Fair value of vested stock options issued to employees and directors	-	-	13,548	-	13,548
Fair value of unvested stock options issued to consultant	-	-	26,458	-	26,458
Shares issued to related party for collateral pursuant to secured convertible note agreement	2,127,660	2,128	-	-	2,128
Net Loss	-	-	-	(925,552)	(925,552)
Balance at June 30, 2019	30,065,903	\$ 30,066	\$ 55,062,492	\$ (65,947,666)	\$ (10,855,108)

See accompanying notes to unaudited condensed consolidated financial statements.

Bone Biologics Corporation

Consolidated Statement of Stockholders' Deficit
For the three and six months ended June 30, 2018
(unaudited)

	<i>Common Stock</i>		Additional Paid-in Capital	Common Stock to be Issued	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount				
Balance at December 31, 2017	4,328,080	\$ 4,328	\$ 48,961,794	\$ 1,823,077	\$ (59,185,022)	\$ (8,395,823)
Fair value of vested stock options issued to employees and directors	-	-	195,795	-	-	195,795
Fair value of unvested stock options issued to consultant	-	-	171,891	-	-	171,891
Shares issued for cash	25,000	25	492,475	-	-	492,500
Fair value of shares issued in settlement of bonus Payable	23,147	23	455,977	-	-	456,000
Shares issued to related party upon net settlement of warrants	16,706	17	(17)	-	-	-
Net Loss	-	-	-	-	(1,454,640)	(1,454,640)
Balance at March 31, 2018	4,392,933	4,393	50,277,915	1,823,077	(60,639,662)	(8,534,277)
Fair value of vested stock options issued to employees and directors	-	-	195,795	-	-	195,795
Fair value of unvested stock options issued to consultant	-	-	146,014	-	-	146,014
Shares issued to related party upon net settlement of warrants	14,140	14	(14)	-	-	-
Shares issued to related party under anti-dilution provision	46,667	47	(47)	-	-	-
Net Loss	-	-	-	-	(1,263,326)	(1,263,326)
Balance at June 30, 2018	4,453,740	\$ 4,454	\$ 50,619,663	\$ 1,823,077	\$ (61,902,988)	\$ (9,455,794)

See accompanying notes to unaudited condensed consolidated financial statements.

Bone Biologics Corporation

Condensed Consolidated Statements of Cash Flows

	Six Months Ended June 30, 2019 (unaudited)	Six Months Ended June 30, 2018 (unaudited)
Cash flows from operating activities		
Net loss	\$ (2,332,245)	\$ (2,717,966)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	50	48
Debt discount amortization	-	313,745
Debt issuance costs amortization	-	19,589
Stock-based compensation	39,272	391,590
Options issued to consultants	32,423	317,905
Issuance costs of shares issued to related party for collateral pursuant to convertible secured note agreement	3,617	-
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(4,735)	24,652
Accounts payable and accrued expenses	61,783	64,722
Deferred compensation	(279,167)	100,000
Net cash used in operating activities	(2,479,002)	(1,485,715)
Cash flows from financing activities		
Proceeds from issuance of common stock	-	500,000
Proceeds from issuance of notes payable	1,700,000	600,000
Net cash provided by financing activities	1,700,000	1,100,000
Net decrease in cash	(779,002)	(385,715)
Cash, beginning of period	955,374	690,279
Cash, end of period	\$ 176,372	\$ 304,564
Supplemental non-cash information		
Interest paid	\$ 458,533	\$ 392,000
Taxes paid	\$ 1,600	\$ 1,600
Supplemental non-cash investing and finance activities:		
Prepaid offering costs netted against proceeds from issuance of common stock	\$ -	\$ 7,500
Shares issued in settlement of bonus payable	\$ -	\$ 456,000

See accompanying notes to unaudited condensed consolidated financial statements.

Bone Biologics Corporation
Notes to Unaudited Condensed Consolidated Financial Statements
For the six months ended June 30, 2019

1. The Company

Bone Biologics Corporation (the “Company”) was incorporated under the laws of the State of Delaware on October 18, 2007 as AFH Acquisition X, Inc. Pursuant to a Merger Agreement, dated September 19, 2014, by and among the Company, its wholly-owned subsidiary, Bone Biologics Acquisition Corp., a Delaware corporation (“Merger Sub”), and Bone Biologics, Inc. Merger Sub merged with and into Bone Biologics Inc., with Bone Biologics Inc. remaining as the surviving corporation in the merger. Upon the consummation of the merger, the separate existence of Merger Sub ceased. On September 22, 2014, the Company officially changed its name to “Bone Biologics Corporation” to more accurately reflect the nature of its business and Bone Biologics, Inc. became a wholly owned subsidiary of the Company. Bone Biologics, Inc. was incorporated in California on September 9, 2004.

On July 16, 2018, the Company closed a rights offering in which Hankey Capital purchased 3,539,654 shares of the Company’s Common Stock and executed amendments (the “Amendments”) to the convertible promissory notes (the “Existing Convertible Notes”) payable to Hankey Capital and dated October 24, 2014, May 4, 2015 and February 24, 2016. The Amendments reduced the conversion price of the Existing Convertible Notes from \$15.80 per share to \$1.00 per share and extended the maturity date of the February 24, 2016 convertible promissory note from February 24, 2019 to December 31, 2019. As a result of the share issuance and Amendments, Hankey Capital and Don Hankey, the Chairman of the Company’s Board of Directors, acquired a majority of the voting common shares issued and outstanding and thus effective control of the Company.

We are a medical device company that is currently focused on bone regeneration in spinal fusion using the recombinant human protein, known as NELL-1/DBX®. The NELL-1/DBX® combination product is an osteostimulative recombinant protein that provides target specific control over bone regeneration. The protein, as part of the UCB-1 technology platform, has been licensed exclusively for worldwide applications to us through a technology transfer from UCLA Technology Development Group on behalf of UC Regents (“UCLA TDG”). UCLA TDG and the Company received guidance from the FDA that NELL-1/DBX® will be classified as a combination product with a device lead.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, which we refer to as the JOBS Act. We would cease to be an emerging growth company upon the earliest of: (i) the last day of the first fiscal year in which our annual gross revenues are \$1.07 billion or more; (ii) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the end of the second quarter of that fiscal year; or (iii) the date on which we have, during the previous three-year period, issued more than \$1.07 billion in non-convertible debt securities. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. We have elected to take advantage of these reduced disclosure obligations, and may elect to take advantage of other reduced reporting obligations in the future.

The JOBS Act permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are choosing to irrevocably “opt out” of this provision and, as a result, we will comply with new or revised accounting standards as required when they are adopted.

The production and marketing of the Company’s products and its ongoing research and development activities will be subject to extensive regulation by numerous governmental authorities in the United States. Prior to marketing in the United States, any combination product developed by the Company must undergo rigorous preclinical (animal) and clinical (human) testing and an extensive regulatory approval process implemented by the FDA under the Food, Drug and Cosmetic Act. There can be no assurance that the Company will not encounter problems in clinical trials that will cause the Company or the FDA to delay or suspend clinical trials.

The Company's success will depend in part on its ability to obtain patents and product license rights, maintain trade secrets, and operate without infringing on the proprietary rights of others, both in the United States and other countries. There can be no assurance that patents issued to or licensed by the Company will not be challenged, invalidated, or circumvented, or that the rights granted thereunder will provide proprietary protection or competitive advantages to the Company.

Going Concern and Liquidity

The Company has no significant operating history and since inception to June 30, 2019 has incurred accumulated losses of approximately \$66.0 million. The Company will continue to incur significant expenses for development activities for their lead product NELL-1/DBX®. Operating expenditures for the next twelve months are estimated at \$4.6 million. The accompanying consolidated financial statements for the period ended June 30, 2019 have been prepared assuming the Company will continue as a going concern. As reflected in the financial statements, the Company had a stockholders' deficit of \$10,855,108 at June 30, 2019, and incurred a net loss of \$2,332,245, and used net cash in operating activities of \$2,479,002 during the six months ended June 30, 2019. These factors raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued. In addition, our independent accounting firm, in its audit report to the financial statements included in our Annual Report for the year ended December 31, 2018, expressed substantial doubt about our ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

The Company will continue to attempt to raise additional debt and/or equity financing to fund future operations and to provide additional working capital. However, there is no assurance that such financing will be consummated or obtained in sufficient amounts necessary to meet the Company's needs. If cash resources are insufficient to satisfy the Company's on-going cash requirements, the Company will be required to scale back or discontinue its product development programs, or obtain funds if available (although there can be no certainties) through strategic alliances that may require the Company to relinquish rights to its technology, substantially reduce or discontinue its operations entirely. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing, or cause substantial dilution for our stockholders, in the case of equity financing.

For the past several years, we have depended on our relationship with Hankey Capital for working capital to fund our operations, which has been raised in the form of both debt and equity capital. Hankey Capital, directly and indirectly, controls approximately 88% of our issued and outstanding shares of common stock (including collateral shares) and has been issued convertible notes payable with an aggregate principal balance of \$10,700,000 at June 30, 2019. Representatives of Hankey Capital also currently serve as directors of the Company. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing, or cause substantial dilution for our stockholders, in the case of equity financing.

At June 30, 2019, the Company had \$300,000 available under a credit facility with Hankey Capital.

Pursuant to the October 2016 Note Purchase Agreement, the Company's management has agreed to defer 20% of earned compensation and the Board of Directors has authorized a change in director compensation to defer 50% of the directors' cash compensation until at least \$5,000,000 has been received in cumulative funding from non-current stockholders.

Reverse Stock Split

Effective July 24, 2018, the directors of the Company approved a resolution to undertake a reverse split of the common stock of the Company on a basis of 1 new common share for 10 old common shares. All references in these financial statements to number of common shares, price per share and weighted average number of shares outstanding prior to the 1 for 10 reverse split have been adjusted to reflect the stock split on a retroactive basis as of the earliest period presented, unless otherwise noted.

2. Summary of Significant Accounting Policies

Basis of Presentation

The interim condensed consolidated financial statements included herein reflect all material adjustments (consisting of normal recurring adjustments and reclassifications and non-recurring adjustments) which, in the opinion of management, are ordinary and necessary for a fair presentation of results for the interim periods. Certain information and footnote disclosures required under the accounting principles generally accepted in the United States of America (“GAAP”) have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). The Company believes that the disclosures are adequate to make the information presented not misleading. The condensed consolidated balance sheet information as of December 31, 2018 was derived from the audited consolidated financial statements included in the Company’s Annual Report on Form 10-K filed with the SEC on March 29, 2019 (the “2018 Annual Report”). These condensed consolidated financial statements should be read in conjunction with the Company’s audited financial statements for the year ended December 31, 2018 and notes thereto included in the 2018 Annual Report.

The results of operations for the six months ended June 30, 2019 are not necessarily indicative of the results to be expected for the entire fiscal year ended December 31, 2019 or for any other period.

Reclassification

Certain accounts totaling \$47,840 previously reflected in the prior-period financial statements as research and development expense have been reclassified to general and administrative expense to conform to the presentation in the current-period financial statements.

Use of Estimates

The preparation of the accompanying consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and reported amounts of expenses during the reporting period. Significant estimates include the assumptions used in the accrual for potential liabilities, the valuation of stock options and warrants issued for services, and deferred tax valuation allowances. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The Company’s consolidated financial instruments are cash, accounts payable and notes payable. The recorded values of cash and accounts payable approximate their values based on their short-term nature. The fair value of convertible notes payable approximate their fair value since the current interest rates and terms on these obligations are the same as prevailing market rates.

The Company 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. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs that may be used to measure fair value, of which the first two are considered observable and the last is considered unobservable:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 assumptions: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities including liabilities resulting from embedded derivatives associated with certain warrants to purchase common stock.

An “established trading market” for the Company’s common stock does not exist. The fair value of the shares was determined based on the then most recent price per share at which we sold common stock to unrelated parties in a private placement during the periods then ended.

During the period January 1, 2018 through June 30, 2018, the Company utilized \$20.00 (post reverse split) per share as the fair value of its common stock for accounting purposes based on one common stock transaction with an investor during March 2018. Subsequently, based on the analysis as described below, management determined that the fair value of the Company’s common stock for accounting purposes was \$0.94 per share.

In drawing its conclusions, management considered various relevant factors, including the work of an independent third party valuation firm engaged to provide a valuation analysis as of July 24, 2018, which indicated a valuation of \$0.94 per common share. Management also took into account the recent cash transaction price for the Company’s common stock pursuant to a July 2018 Rights Offering to all common stockholders, which resulted in the sale of common shares to an affiliate of the Company and parties related to such affiliate at a slightly higher price of \$1.00 per share. The Company entered into a series of interrelated transactions with such affiliate at the same \$1.00 price per share during the year ended December 31, 2018.

The July 24, 2018 valuation analysis employed the discounted future value method and utilized financial metrics observed in the marketplace. Management ultimately determined, and the valuation firm concurred, that the discounted future value method was the most appropriate valuation methodology under the circumstances.

The utilization of the discounted future value method involved the estimation of a business enterprise value (“BEV”)/revenue multiple, the probability of approval of the Company’s technology, the estimation of the Company’s cost of equity and weighted average cost of capital, the estimation of a required rate of return appropriate for discounting projected revenues to calculate the present value of the business enterprise, and an appropriate discount period. This method involved projecting revenues through 2028 and applying an appropriate BEV/revenue multiple.

Stock Based Compensation

ASC 718, *Compensation – Stock Compensation*, prescribes accounting and reporting standards for all share-based payment transactions in which employee services are acquired. Transactions include incurring liabilities, or issuing or offering to issue shares, options, and other equity instruments such as employee stock ownership plans and stock appreciation rights. Share-based payments to employees, including grants of employee stock options, are recognized as compensation expense in the consolidated financial statements based on their fair values. That expense is recognized over the period during which an employee is required to provide services in exchange for the award, known as the requisite service period (usually the vesting period). The Company adopted ASU 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting*, effective January 1, 2019, which aligns the accounting treatment of nonemployee awards with employee awards.

In light of the lack of an “established trading market”, the fair value of the shares was determined based on the discounted future value valuation methodology. Pursuant to ASU No. 2016-09 – *Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, the Company accounts for forfeitures when they occur.

Prior to January 1, 2019, the Company accounted for stock-based compensation issued to non-employees and consultants in accordance with the provisions of ASC 505-50, *Equity – based Payments to Non-Employees*. Measurement of share-based payment transactions with non-employees was based on the fair value of whichever is more reliably measurable: (a) the goods or services received; or (b) the equity instruments issued. The fair value of the share-based payment transaction was determined at the earlier of the performance commitment date or the performance completion date. Stock options issued to non-employees and consultants were revalued each reporting period to determine the amount to be recorded in the statement of operations in the respective period. As stock options vest, they were valued on each vesting date and an adjustment was recorded for the difference between the value already recorded and the value on the date of vesting. Forfeitures of the unvested portion of stock option grants were recorded when the underlying event occurs, and were recorded as a reversal of the related expense. An increase in the Company’s stock price during a reporting period would generally result in an increase in the fair value of unvested stock options and thus the related expense, and a decrease in the Company’s stock price during a reporting period would generally result in a decrease in the fair value of unvested stock options and thus the related expense. Accordingly, depending on various factors, the recording of forfeitures and a decrease in the price of the Company’s common stock during a reporting period could have resulted in a credit balance in an operating account in the statement of operations.

Collateral Shares

The Company accounts for the common shares issued as collateral for convertible promissory notes, whether upon original issuance or upon the required annual adjustment, as debt issuance costs in the form of a loan processing fee, which is determined by reference to the par value of the Company's common stock, with a corresponding charge to operations when such collateral shares are issued. The collateral shares are subject to significant contractual restrictions limiting their sale or transfer. As these common shares have been issued to and are held by the lender, and are contingently returnable to the Company under certain conditions, such shares are considered as issued and outstanding on the Company's balance sheet, but are not included in earnings per share calculations for all periods presented.

In the event of an uncured event of default, the Company will record a charge to operations to recognize that the collateral shares are no longer owned or controlled by the Company, and such prospective charge to operations would be based on the fair market value of the collateral shares at that time, and which would be classified as a cost of debt capital and recognized as a charge to operations. As of June 30, 2019 and December 31, 2019, there are 22,765,958 and 19,148,936 shares outstanding that have been issued for collateral.

Loss per Common Share

The Company utilizes FASB ASC Topic No. 260, *Earnings per Share*. Basic loss per share is computed by dividing loss available to common shareholders by the weighted-average number of common shares outstanding. At June 30, 2019 and 2018 there were 22,765,958 and 1,139,240 shares issued for collateral for outstanding loans are excluded from weighted average shares outstanding. Diluted loss per share is computed similar to basic loss per share except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potential common shares had been issued and if the additional common shares were dilutive. Diluted loss per common share reflects the potential dilution that could occur if convertible debentures, options and warrants were to be exercised or converted or otherwise resulted in the issuance of common stock that then shared in the earnings of the entity.

Since the effects of outstanding options, warrants, and the conversion of convertible debt are anti-dilutive for the period ended June 30, 2019 and 2018, shares of common stock underlying these instruments have been excluded from the computation of loss per common share.

The following sets forth the number of shares of common stock underlying outstanding options, warrants, and convertible debt as of June 30, 2019 and 2018:

	June 30,	
	2019	2018
Warrants	833,257	862,182
Stock options	898,557	844,954
Convertible promissory notes	10,700,000	569,620
	<u>12,431,814</u>	<u>2,276,756</u>

New Accounting Standards

In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Topic 842). ASU 2016-02 requires a lessee to record a right-of-use asset and a corresponding lease liability, initially measured at the present value of the lease payments, on the balance sheet for all leases with terms longer than 12 months, as well as the disclosure of key information about leasing arrangements. ASU 2016-02 requires recognition in the statement of operations of a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. ASU 2016-02 requires classification of all cash payments within operating activities in the statement of cash flows. Disclosures are required to provide the amount, timing and uncertainty of cash flows arising from leases. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company has evaluated the impact of the adoption of ASU 2016-02 on the Company's financial statement presentation or disclosures and determined no effect since we have no leases with terms longer than 12 months.

Other recent accounting pronouncements issued by the FASB, including its Emerging Issues Task Force, the American Institute of Certified Public Accountants, and the Securities and Exchange Commission did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statements.

3. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	<u>June 30, 2019</u>	<u>December 31, 2018</u>
Accounts payable	\$ 178,236	\$ 125,203
Deferred Directors' fees	80,767	72,017
	<u>\$ 259,003</u>	<u>\$ 197,220</u>

4. Notes Payable - Related Party

Hankey Capital LLC (Hankey Capital)

Hankey Capital holds certain convertible notes of the Company as discussed below. Don Hankey, the CEO and Chairman of Hankey Group, is our non-independent Chairman of the Board and a significant shareholder. Bret Hankey, the president of Hankey Capital, is a non-independent board member. The Hankey Group is an affiliate of Hankey Capital.

Note Type	Issue Date	Maturity Date	Interest Rate	<u>March 31, 2019</u>	<u>December 31, 2018</u>
<i>(A) First Secured Convertible Note</i>	10/24/14	12/31/19	9.50%	\$ 5,000,000	\$ 5,000,000
<i>(A) Second Secured Convertible Note</i>	5/4/15	12/31/19	9.50%	2,000,000	2,000,000
<i>(B) Third Secured Convertible Note</i>	2/24/16	12/31/19	9.50%	2,000,000	2,000,000
<i>(C) Credit Facility</i>	3/19/19	12/31/19	9.50%	1,700,000	-
Notes payable				<u>\$ 10,700,000</u>	<u>\$ 9,000,000</u>

First and Second Secured Convertible Notes and Warrants

(A) On October 24, 2014 and May 4, 2015, the Company issued two convertible promissory notes in the aggregate amount of \$7,000,000 to Hankey Capital. Don Hankey, the CEO and Chairman of Hankey Group, is our non-independent Chairman of the Board and a significant shareholder. Bret Hankey, the president of Hankey Capital, is a non-independent board member. The Convertible Notes mature on December 31, 2019 and bear interest at an annual rate of interest of the “prime rate” plus 4.0%, with a minimum rate of 8.5% per annum until maturity, with interest payable monthly in arrears. Prior to the Maturity Date, Hankey Capital has a right, in its sole discretion, to convert the Convertible Notes into shares of the Company’s Common Stock, at a conversion rate equal to \$1.00 per share. The Company also issued warrants to Hankey Capital for an aggregate of 585,443 shares of Common Stock at an exercise price per share of \$15.80 that expire five years from the dates of issuance. In connection with the Convertible Notes, the Company paid commitment fees in the amount of \$210,000 (3.0% of the original principal amount of the loans) to Hankey Capital and other aggregate offering costs of \$594,550. The aggregate value of the warrants and offering costs totaling \$2,891,409 was considered to be a debt discount upon issuance of the notes and was fully amortized as of December 31, 2018.

Third Convertible Secured Term Note and Warrants

(B) On February 24, 2016, the Company issued a convertible promissory note in the amount of \$2,000,000 to Hankey Capital. The Third Convertible Note matures on December 31, 2019 (the “Maturity Date”) and bears interest at an annual rate of interest at the “prime rate” plus 4.0%, with a minimum rate of 8.5% per annum until maturity, with interest payable monthly in arrears. Prior to the Maturity Date, Hankey Capital has a right, in its sole discretion, to convert the Convertible Note into shares of the Company’s common stock (the “Conversion Shares”), at a conversion rate equal to \$1.00 per share and issued a warrant to Hankey Capital for 146,342 shares of Common Stock at an exercise price per share of \$20.50. The Warrant will expire on February 23, 2021. In connection with the Convertible Note, the Company paid a commitment fee in the amount of \$40,000 (2.0% of the original principal amount of the Loan) and other offering costs totaling \$77,532. The aggregate value of the warrant, beneficial conversion feature and offering costs of \$2,000,000 was considered a debt discount upon issuance of the note and was fully amortized as of December 31, 2018.

Credit Facility Convertible Secured Term Note

(C) On July 24, 2018, the Company and Hankey Capital entered into an agreement under which Hankey Capital will provide a credit facility of \$2,000,000 to the Company to be drawn down by the Company upon notice to Hankey Capital. The credit facility is evidenced by a convertible secured note convertible prior to the maturity date at \$1.00 per share and due on December 31, 2019. Draws bear interest at an annual rate of interest at the “prime rate” (as quoted in the “Money Rates” section of The Wall Street Journal) plus 4.0%, with a minimum rate of 8.5% per annum until maturity, with interest payable monthly in arrears. At June 30, 2019, the Company had \$300,000 available under the facility. At December 31, 2018, the Company had \$2,000,000 available under the facility.

On March 19, 2019, the Company drew \$700,000 on the credit facility. The Company issued 1,489,362 Collateral Shares pursuant to the agreement.

On May 2, 2019, the Company drew \$500,000 on the credit facility. The Company issued 1,063,830 Collateral Shares pursuant to the agreement.

On June 18, 2019, the Company drew \$500,000 on the credit facility. The Company issued 1,063,830 Collateral Shares pursuant to the agreement.

Collateral

The Convertible Notes are secured by an aggregate of 22,765,958 and 19,148,936 collateral shares of Common Stock issued by the Company in the name of Hankey Capital, in such amount so as to maintain a loan to value ratio equal to 50% (the "Collateral Shares"). The number of shares as of June 30, 2019 and December 31, 2018, respectively, in the Collateral Shares shall be adjusted on a yearly basis. The principal amount of the loans are pre-payable in whole or in part at any time, without premium or penalty. Upon any voluntary partial prepayment of outstanding principal, Hankey Capital will return Collateral shares to the Company in the amount necessary, if any, to maintain the loan to value ratio at no less than 50%. Upon a full payment of the outstanding principal, all Collateral Shares shall be returned and cancelled. Hankey Capital will also return Collateral Shares under the same terms in case of partial or full conversion of the Convertible Notes. All of the Company's personal property further secure the aggregate Convertible Notes, including collateral assignments of all the Company's license agreements and the MTF Signal Option Agreement.

Debt Amendments

On February 24, 2016, the First and Second Secured Convertible Notes were modified to extend the maturity date to December 31, 2019, fix the conversion price at \$15.80 and the warrants were amended to extend their expiration date by two years. The Company determined that the extension of the convertible notes' maturity dates and the warrants' expiration dates resulted in a debt extinguishment for accounting purposes since the change in fair value of the warrants as a result of the extension of their expiration dates was more than 10% of the original value of the convertible notes. As such, the Company recorded the notes at their aggregate fair value of \$7,000,000.

In connection with the financing that closed on July 16, 2018, the Company and Hankey Capital executed amendments (the "Amendments") to the First, Second and Third convertible secured term notes (the "Existing Convertible Notes"). The Amendments change Hankey Capital's conversion price from \$15.80 per share to \$1.00 per share on a post reverse stock split basis on the Existing Convertible Notes and extends the maturity date of the Third Convertible Note from February 24, 2019 to December 31, 2019. The Amendments became effective on the closing of the rights offering, July 16, 2018. The Company determined that the change in the conversion prices of the Existing Convertible Notes and extension of the Third Convertible Note's maturity date resulted in debt extinguishments for accounting purposes since the change in fair value of the conversion options was more than 10% of the original value of the Existing Convertible Notes. During the year ended December 31, 2018, the Company recorded a loss on extinguishment of debt totaling \$408,294 for the remaining unamortized debt discount.

The total debt discount amortization related to our outstanding debt for the periods ended June 30, 2019 and 2018, was \$-0- and \$158,873, respectively. The unamortized debt discount at June 30, 2019 and December 31, 2018 was \$-0-. During 2018, \$383,861 of debt discount was written off as a result of the debt extinguishment.

The total debt issuance amortization related to our outstanding debt for the periods ended June 30, 2019 and 2018, was \$-0- and \$9,794, respectively. The unamortized debt discount at June 30, 2019 and December 31, 2018 was \$-0-. During 2018, \$24,433 of debt issuance costs were written off as a result of the debt extinguishment.

5. Stockholders' Deficit

Preferred Stock

The Company's amended and restated certificate of incorporation authorizes the Company to issue a total of 20,000,000 shares of preferred stock. No shares have been issued.

Common Stock

The Company's amended and restated certificate of incorporation authorizes the Company to issue a total of 100,000,000 shares of common stock. As of June 30, 2019 and December 31, 2018, the Company had an aggregate of 30,065,903 and 26,448,881 shares of common stock outstanding, respectively.

On March 19, 2019, the Company issued 1,489,362 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4).

On May 7, 2019, the Company issued 1,063,830 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4).

On June 20, 2019, the Company issued 1,063,830 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4).

Common Stock Warrants

A summary of warrant activity for the period ended June 30, 2019 is presented below:

Subject to Exercise	Number of Warrants	Weighted Average Exercise Price	Weighted Average Life (Years)
Outstanding as of December 31, 2018	845,096	\$ 4.94	1.40
Granted – 2019	-	-	-
Forfeited/Expired – 2019	(11,839)	-	-
Exercised – 2019	-	-	-
Outstanding as of June 30, 2019	<u>833,257</u>	<u>\$ 4.95</u>	<u>0.92</u>

As of June 30, 2019, the Company had outstanding vested and unexercised Common Stock Warrants as follows:

Date Issued	Exercise Price	Number of Warrants	Expiration date
2010	\$ 4.40	22,659	February 4, 2020
April 2013	\$ 10.00	5,000	April 28, 2020
September 2013	\$ 10.00	5,000	September 4, 2020
September 2013	\$ 10.00	2,500	September 20, 2020
November 2013	\$ 10.00	7,500	November 14, 2020
July 2014	\$ 10.00	50,000	June 30, 2020
July 2014	\$ 10.00	4,667	July 2, 2019
September 2014	\$ 16.20	62,500	August 31, 2021
September 2014	\$ 10.00	11,800	September 18, 2021
September 2014	\$ 10.00	8,959	September 29, 2021
October 2014	\$ 15.80	316,456	October 23, 2019
May 2015	\$ 15.80	189,874	May 4, 2020
February 2016	\$ 20.50	146,342	February 23, 2021
Total outstanding warrants at June 30, 2019		<u><u>833,257</u></u>	

There were no common stock warrants exercised and 11,839 warrants expired during the period ended June 30, 2019. The intrinsic value of the outstanding warrants on June 30, 2019 is \$-0-.

6. Stock-based Compensation

2015 Equity Incentive Plan

The Company has 1,400,000 shares of Common Stock authorized and reserved for issuance under our 2015 Equity Incentive Plan for option awards. This reserve may be increased by the Board each year by up to the number of shares of stock equal to 5% of the number of shares of stock issued and outstanding on the immediately preceding December 31. Appropriate adjustments will be made in the number of authorized shares and other numerical limits in our 2015 Equity Incentive Plan and in outstanding awards to prevent dilution or enlargement of participants' rights in the event of a stock split or other change in our capital structure. Shares subject to awards granted under our 2015 Equity Incentive Plan which expire, are repurchased or are cancelled or forfeited will again become available for issuance under our 2015 Equity Incentive Plan. The shares available will not be reduced by awards settled in cash. Shares withheld to satisfy tax withholding obligations will not again become available for grant. The gross number of shares issued upon the exercise of stock appreciation rights or options exercised by means of a net exercise or by tender of previously owned shares will be deducted from the shares available under our 2015 Equity Incentive Plan.

Awards may be granted under our 2015 Equity Incentive Plan to our employees, including officers, director or consultants, and our present or future affiliated entities. While we may grant incentive stock options only to employees, we may grant non-statutory stock options, stock appreciation rights, restricted stock purchase rights or bonuses, restricted stock units, performance shares, performance units and cash-based awards or other stock based awards to any eligible participant.

The 2015 Equity Incentive Plan is administered by our compensation committee. Subject to the provisions of our 2015 Equity Incentive Plan, the compensation committee determines, in its discretion, the persons to whom, and the times at which, awards are granted, as well as the size, terms and conditions of each award. All awards are evidenced by a written agreement between us and the holder of the award. The compensation committee has the authority to construe and interpret the terms of our 2015 Equity Incentive Plan and awards granted under our 2015 Equity Incentive Plan.

A summary of stock option activity for the period ended June 30, 2019, is presented below:

Subject to Exercise	Number of Options	Weighted Average Exercise Price	Weighted Average Life (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2018	843,648	\$ 16.43	6.56	\$ -
Granted – 2019	54,909	\$ 0.94	10.00	-
Forfeited – 2019	-	-	-	-
Exercised – 2019	-	-	-	-
Outstanding as of June 30, 2019	898,557	\$ 15.48	6.28	\$ -

As of June 30, 2019, the Company had outstanding stock options as follows:

Date Issued	Exercise Price	Number of Options	Expiration date
September 2014	\$ 15.90	58,307	December 27, 2025
November 2014	\$ 15.90	17,492	December 27, 2025
August 2015	\$ 15.90	312,180	December 27, 2025
September 2015	\$ 15.90	20,000	December 27, 2025
November 2015	\$ 15.90	122,464	December 27, 2025
December 2015	\$ 15.90	80,275	December 27, 2025
January 2016	\$ 15.90	127,581	January 9, 2026
March 2016	\$ 20.50	5,400	February 24, 2021
May 2016	\$ 20.50	80,744	May 26, 2026
September 2016	\$ 20.50	9,933	May 31, 2026
January 2017	\$ 20.50	5,356	January 1, 2027
January 2018	\$ 19.70	3,916	January 1, 2028
January 2019	\$ 0.94	54,909	January 1, 2029
Total outstanding options at June 30, 2019		898,557	

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (*i.e.*, the difference between our closing stock price on the respective date and the exercise price, times the number of shares) that would have been received by the option holders had all option holders exercised their options. No options were exercised and none cancelled during the period ended June 30, 2019.

There were 54,909 options granted with a fair value of \$50,000 during the period ended June 30, 2019. Vesting of options differs based on the terms of each option. The Company has valued the options at their date of grant utilizing the Black-Scholes option pricing model. As of the issuance of these condensed consolidated financial statements, there was no active public market for the Company's shares. Accordingly, the fair value of the options was determined based on the historical volatility data of similar companies, considering the industry, products and market capitalization of such other entities. The risk-free interest rate used in the calculations is based on the implied yield available on U.S. Treasury issues with an equivalent term approximating the expected life of the options as calculated using the simplified method. The expected life of the options used was based on the contractual life of the option granted. Stock-based compensation is a non-cash expense because we settle these obligations by issuing shares of our common stock from our authorized shares instead of settling such obligations with cash payments.

During the periods ended June 30, 2019 and 2018, the Company had stock-based compensation expense of \$39,272 and \$391,590, respectively, related to the vesting of stock options granted to the Company's employees and directors included in our reported net loss. Stock compensation expense for stock options granted to consultants recognized in the statement of operations amounted to \$32,423 and \$317,905 during the periods ended June 30, 2019 and 2018, respectively. Our policy is to account for forfeitures of the unvested portion of option grants when they occur; therefore, these forfeitures are recorded as a reversal to expense, which can result in a credit balance in the statement of operations.

The Company utilized the Black-Scholes option pricing model. The assumptions used for the periods ended June 30, 2019 and 2018 are as follows:

	June 30, 2019	June 30, 2018
Risk free interest rate	2.554%	2.302%-2.790%
Expected life (in years)	6.24	6.24-7.75
Expected Volatility	169.87%	169.33%-173.79%
Expected dividend yield	0%	0%

A summary of the changes in the Company's non-vested options during the period ended June 30, 2019, is as follows:

	Number of Non-vested Options	Weighted Average Fair Value at Grant Date
Non-vested at December 31, 2018	117,464	\$ 14.61
Granted in 2019	54,909	\$ 0.91
Forfeited – 2019	-	\$ -
Vested in 2019	27,455	\$ 0.91
Non-vested at June 30, 2019	144,918	\$ 13.41
Exercisable at June 30, 2019	753,639	\$ 13.84
Outstanding at June 30, 2019	898,557	\$ 13.77

As of June 30, 2019, total unrecognized compensation cost related to unvested stock options was \$58,927. The cost is expected to be recognized over a weighted average period of 0.5 years.

7. Commitments and Contingencies

Contingencies

The Company is subject to claims and assessments from time to time in the ordinary course of business. The Company's management does not believe that any such matters, individually or in the aggregate, will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

In July 2019, Dr. Bessie (Chia) Soo and Dr. Kang (Eric) Ting (“Plaintiffs”) filed a complaint (the “Complaint”) in federal court in Massachusetts against the Company, Bruce Stroever (“Stroever”), John Booth (“Booth”), Stephen LaNeve (“LaNeve”, and together with Stroever and Booth, the “Individual Defendants”), and MTF Biologics (f/k/a The Musculoskeletal Transplant Foundation, Inc.) (“MTF”). The Complaint alleges claims for breach of contract against the Company and tortious interference with contract against the Individual Defendants and MTF arising from the termination of the Professional Service Agreements, dated as of January 8, 2016, between the Company and each of the Plaintiffs. The Individual Defendants have been sued for actions taken by them in connection with their service to the Company as directors and/or officers of the Company. As such, the Company has certain indemnification obligations to the Individual Defendants. The Company and the Individual Defendants intend to vigorously defend against the allegations in the Complaint. Based on the very early stage of the litigation, it is not possible to estimate the amount or range of any possible loss arising from the expenditure of defense fees, a judgment or settlement of the matter.

In July 2018, AFH Holding & Advisory, LLC, Amir Heshmatpour, Steve Richards, and Bessie (Chia) Soo (“Plaintiffs”) filed a verified shareholder derivative complaint (the “Complaint”) in Massachusetts federal court against Bruce Stroever, John Booth, Stephen LaNeve, Bret Hankey, James Delshad (the “Initial Defendants”), and The Musculoskeletal Transplant Foundation, Inc. (“MTF”), and also named the Company as a nominal defendant. The Complaint alleged claims for violation of Section 14(c) of the Securities Exchange Act of 1934, breach of fiduciary duties, rescission of a reverse stock split, and in the alternative rescissory damages. The Complaint focused on the financing transaction that the Company completed with Hankey Capital in July 2018. The Initial Defendants and the Company filed motions to dismiss on September 28, 2018. After changing counsel and obtaining several extensions of time, instead of responding to the motions to dismiss, Plaintiffs filed an Amended Complaint (the “Amended Complaint”) on February 8, 2019 as a direct, instead of derivative complaint, and added two additional defendants, Don Hankey and Hankey Capital LLC (the “Added Defendants” and together with the Initial Defendants, MTF and the Company, the “Current Defendants”). The Amended Complaint asserted claims for violation of Section 14(c) of the Securities Exchange Act of 1934, breach of fiduciary duties, aiding and abetting breach of fiduciary duties, rescission of a reverse stock split, and in the alternative rescissory damages. On February 22, 2019, the Company and the Initial Defendants filed a Motion to Dismiss the Amended Complaint. The Motion to Dismiss the Amended Complaint was granted in its entirety on July 29, 2019, with the court dismissing the claims for violation of Section 14(c) of the Securities Exchange Act of 1934 with prejudice, and dismissing the remaining claims for lack of jurisdiction.

8. Subsequent Events

On July 11, 2019, the Company drew \$40,000 of working capital under our secured credit facility secured by 85,106 collateral shares of Common Stock issued by the Company in the name of Hankey Capital (see Note 4).

On August 2, 2019, the Company drew \$260,000 of working capital under our secured credit facility secured by 553,191 collateral shares of Common Stock issued by the Company in the name of Hankey Capital (see Note 4).

Item 2. Management’s Discussion and Analysis.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and the notes thereto included elsewhere in this Quarterly Report on Form 10-Q and audited consolidated financial statements for the years ended December 31, 2018 and 2017 and the related notes included in our Annual Report on Form 10-K filed for the fiscal year ended December 31, 2018, with the SEC on March 29, 2019. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. See “Note Regarding Forward-Looking Statements” for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors.

Overview

We are a medical device company that is currently focused on bone regeneration in spinal fusion using the recombinant human protein, known as NELL-1/DBX®. The NELL-1/DBX® combination product is an osteostimulative recombinant protein that provides target specific control over bone regeneration. The protein, as part of the UCB-1 technology platform has been licensed exclusively for worldwide applications to us through a technology transfer from UCLA Technology Development Group on behalf of UC Regents (“UCLA TDG”). UCLA TDG and the Company received guidance from the FDA that NELL-1/DBX® will be classified as a combination product with a device lead.

The Company was founded by University of California professors in collaboration with an Osaka University professor and a University of Southern California surgeon in 2004 as a privately-held company with proprietary, patented technology that has been validated in sheep and non-human primate models to facilitate bone growth. Our platform technology has application in delivering improved outcomes in the surgical specialties of spinal, orthopedic, general orthopedic, plastic reconstruction, neurosurgery, interventional radiology, and sports medicine. Lead product development and clinical studies are targeted on spinal fusion surgery, one of the larger segments in the orthopedic market.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, which we refer to as the JOBS Act. We would cease to be an emerging growth company upon the earliest of: (i) the last day of the first fiscal year in which our annual gross revenues are \$1.07 billion or more; (ii) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeded \$700.0 million as of the end of the second quarter of that fiscal year; or (iii) the date on which we have, during the previous three-year period, issued more than \$1.07 billion in non-convertible debt securities. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. We have elected to take advantage of these reduced disclosure obligations, and may elect to take advantage of other reduced reporting obligations in the future.

The JOBS Act permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are choosing to irrevocably “opt out” of this provision and, as a result, we will comply with new or revised accounting standards as required when they are adopted.

Our success will depend in part on our ability to obtain patents and product license rights, maintain trade secrets, and operate without infringing on the proprietary rights of others, both in the United States and other countries. There can be no assurance that patents issued to or licensed by us will not be challenged, invalidated, or circumvented, or that the rights granted thereunder will provide proprietary protection or competitive advantages to us.

UCLA TDG Exclusive License Agreement

Effective April 9, 2019, the Company entered into an Amended and Restated Exclusive License Agreement dated as of March 21, 2019 (the “Amended License Agreement”) with the UCLA Technology Development Group on behalf of UC Regents (“UCLA TDG”). The Amended License Agreement amends and restates the Amended and Restated Exclusive License Agreement, dated as of June 19, 2017 (the “2017 Agreement”). The 2017 Agreement amended and restated the Exclusive License Agreement, effective March 15, 2006, between the Company and UCLA TDG, as amended by ten amendments. Under the terms of the Amended License Agreement, the Regents have continued to grant the Company exclusive rights to develop and commercialize NELL-1 (the “Licensed Product”) for spinal fusion, osteoporosis and trauma applications. The Licensed Product is a recombinant human protein growth factor that is essential for normal bone development.

We have agreed to pay an annual maintenance fee to UCLA TDG of \$10,000 as well as to pay certain royalties to UCLA TDG under the Amended License Agreement at the rate of 3.0% of net sales of licensed products. We must pay the royalties to UCLA TDG on a quarterly basis. Upon a first commercial sale, we also must pay between \$50,000 and \$250,000, depending on the calendar year which is after the first commercial sale. If we are required to pay any third party any royalties as a result of us making use of UCLA TDG patents, then we may reduce the royalty owed to UCLA TDG by 0.333% for every percentage point paid to a third party. If we grant sublicense rights to a third party to use the UCLA TDG patent, then we will pay to UCLA TDG 10% to 20% of the sublicensing income we receive from such sublicense.

We are obligated to make the following milestone payments to UCLA TDG for each Licensed Product or Licensed Method:

- \$100,000 upon enrollment of the first subject in a Feasibility Study;
- \$250,000 upon enrollment of the first subject in a Pivotal Study;
- \$500,000 upon Pre-Market Approval of a Licensed Product or Licensed Method; and
- \$1,000,000 upon the First Commercial Sale of a Licensed Product or Licensed Method.

We are also obligated to pay UCLA TDG a cash milestone payment within thirty (30) days of a Liquidity Event (including a Change of Control Transaction and a payment election by UCLA TDG exercisable after December 22, 2017), such payment to equal the greater of:

- \$500,000; or
- 2% of all proceeds in connection with a Change of Control Transaction.

We are obligated to diligently proceed with developing and commercializing licensed products under UCLA patents set forth in the Amended License Agreement. UCLA TDG has the right to either terminate the license or reduce the license to a non-exclusive license if we do not meet certain diligence milestone deadlines set forth in the Amended License Agreement.

We must reimburse or pre-pay UCLA TDG for patent prosecution and maintenance costs incurred during the term of the Amended License Agreement. We have the right to bring infringement actions against third party infringers of the Amended License Agreement, UCLA TDG may join voluntarily, at its own expense, or, at our expense, be joined involuntarily to the action. We are required to indemnify UCLA TDG against any third party claims arising out of our exercise of the rights under the Amended License Agreement or any sublicense.

The Amended License Agreement provided a PEGylated Licensed Product/Licensed Method (“Newly Added Patent Rights”) for which Company has agreed to assume a series of new development obligations, which conclude with a First Commercial Sale of such PEGylated Licensed Product/Licensed Method by the end of 2031.

The Amended License Agreement added the following financial terms with respect to Newly Added Patent Rights:

- 30% sharing of any Sublicense Income received by the Company and attributable to those Newly Added Patent Rights;
- Four new Development Milestones corresponding to a PEGylated Licensed Product/Licensed Method that is covered by the Newly Added Patent Rights and
- 3% royalty on Net Sales of such a Licensed Product/Licensed Method covered by the Newly Added Patent Rights

Results of Operations

Since our inception, we devoted substantially all of our efforts and funding to the development of the NELL-1 protein and raising capital. We have not yet generated revenues from our planned operations.

Three months ended June 30, 2019 compared to the Three months ended June 30, 2018

	Three-months ended June 30, 2019	Three-months ended June 30, 2018	% Change
Operating expenses			
Research and development	417,565	187,460	122.75%
General and administrative	261,692	672,690	(61.10)%
Total operating expenses	679,257	860,150	(21.03)%
Loss from operations	(679,257)	(860,150)	(21.03)%
Interest expense, related party	(244,695)	(401,576)	(39.07)%
Provision for income taxes	(1,600)	(1,600)	-%
Net loss	\$ (925,552)	\$ (1,263,326)	(26.74)%

Research and Development

Our research and development increased from \$187,460 during the three months ended June 30, 2018 to \$417,565 during the three months ended June 30, 2019. The \$230,105 increase was due to costs related to the our large animal pivotal study. We will continue to incur significant expenses for development activities for NELL-1.

General and Administrative

Our general and administrative expenses decreased from \$672,690 during the three months ended June 30, 2018 to \$261,692 during the three months ended June 30, 2019. The \$410,998 decrease was primarily due to \$379,167 of deferred compensation written off and a decrease in the required amortization of the fair value of management options.

Effective June 28, 2019, the Letter Agreement dated June 8, 2015 between the Company and Stephen LaNeve, the Company's President and Chief Executive Officer, and the Letter Agreement dated October 13, 2015 between the Company and Deina Walsh, the Company's Chief Financial Officer, each relating to such individual's employment with the Company, were not renewed by those employees.

Interest Expense

Our interest expense decreased from \$401,576 for the three months ended June 30, 2018 to \$244,695 during the three months ended June 30, 2019. The decrease in interest of \$156,881 resulted from decreased amortization of debt discount costs due to the 2018 debt modification accounted for as a debt extinguishment.

Six months ended June 30, 2019 compared to the Six months ended June 30, 2018

	Six-months ended June 30, 2019	Six-months ended June 30, 2018	% Change
Operating expenses			
Research and development	981,898	556,469	76.45%
General and administrative	886,597	1,400,404	(36.69)%
Total operating expenses	1,868,495	1,956,873	(4.52)%
Loss from operations	(1,868,495)	(1,956,873)	(4.52)%
Interest expense, related party	(462,150)	(759,493)	(39.15)%
Provision for income taxes	(1,600)	(1,600)	-%
Net loss	<u>\$ (2,332,245)</u>	<u>\$ (2,717,966)</u>	<u>(14.19)%</u>

Research and Development

Our research and development increased from \$556,469 during the six months ended June 30, 2018 to \$981,898 during the six months ended June 30, 2019. The \$425,429 increase was due to costs related to our large animal pivotal study. We will continue to incur significant expenses for development activities for NELL-1.

General and Administrative

Our general and administrative expenses decreased from \$1,400,404 during the six months ended June 30, 2018 to \$886,597 during the six months ended June 30, 2019. The \$513,807 decrease was primarily due to \$379,167 of deferred compensation written off and a decrease in the required amortization of the fair value of management options.

Effective June 28, 2019, the Letter Agreement dated June 8, 2015 between the Company and Stephen LaNeve, the Company's President and Chief Executive Officer (the "LaNeve Letter Agreement"), and the Letter Agreement dated October 13, 2015 between the Company and Deina Walsh, the Company's Chief Financial Officer, each relating to such individual's employment with the Company, were not renewed by those employees.

Interest Expense

Our interest expense decreased from \$759,493 for the six months ended June 30, 2018 to \$462,150 during the six months ended June 30, 2019. The decrease in interest of \$297,343 resulted from decreased amortization of debt discount costs due to the 2018 debt modification accounted for as a debt extinguishment.

Liquidity and Capital Resources

The Company has no significant operating history and since inception to June 30, 2019 has incurred accumulated losses of approximately \$66.0 million. The Company will continue to incur significant expenses for development activities for their lead product NELL-1/DBX®. Operating expenditures for the next twelve months are estimated at \$4.6 million. The accompanying consolidated financial statements for the period ended June 30, 2019 have been prepared assuming the Company will continue as a going concern. As reflected in the financial statements, the Company had a stockholders' deficit of \$10,855,108 at June 30, 2019, and incurred a net loss of \$2,332,245, and used net cash in operating activities of \$2,479,002 during the six months ended June 30, 2019. These factors raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued. In addition, our independent accounting firm, in its audit report to the financial statements included in our Annual Report for the year ended December 31, 2018, expressed substantial doubt about our ability to continue as a going concern. The consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

The Company will continue to attempt to raise additional debt and/or equity financing to fund future operations and to provide additional working capital. However, there is no assurance that such financing will be consummated or obtained in sufficient amounts necessary to meet the Company's needs. If cash resources are insufficient to satisfy the Company's on-going cash requirements, the Company will be required to scale back or discontinue its product development programs, or obtain funds if available (although there can be no certainties) through strategic alliances that may require the Company to relinquish rights to its technology, substantially reduce or discontinue its operations entirely. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing, or cause substantial dilution for our stockholders, in the case of equity financing.

For the past several years, we have depended on our relationship with Hankey Capital for working capital to fund our operations, which has been raised in the form of both debt and equity capital. Hankey Capital, directly and indirectly, controls approximately 88% of our issued and outstanding shares of common stock (including collateral shares) and as of August 8, 2019 has been issued convertible notes payable with an aggregate principal balance of \$11,000,000. Representatives of Hankey Capital also currently serve as directors of the Company. No assurance can be given that any future financing will be available or, if available, that it will be on terms that are satisfactory to the Company. Even if the Company is able to obtain additional financing, it may contain undue restrictions on our operations, in the case of debt financing, or cause substantial dilution for our stockholders, in the case of equity financing.

Pursuant to the October 2016 Note Purchase Agreement, the Company's management has agreed to defer 20% of earned compensation and the Board of Directors has authorized a change in director compensation to defer 50% of the directors' cash compensation until at least \$5,000,000 has been received in cumulative funding from non-current stockholders.

As of June 30, 2019 and December 31, 2018, we had cash of \$176,372 and \$955,374, respectively.

Cash Flows

Operating activities

During the six months ended June 30, 2019 and 2018, cash used in operating activities was \$2,479,002 and \$1,485,715 respectively. Cash expenditures the six months ended June 30, 2019 increased primarily due to the timing of our development activities with our Contracted Manufacturing Organization (“CMO”). Cash expenditures the six months ended June 30, 2018 were primarily due to the timing of our development activities with our Contracted Manufacturing Organization (“CMO”) and management’s cash conservation efforts including a 20% deferral of wages and the Board’s 50% deferral of cash compensation.

Financing activities

During the six months ended June 30, 2019, cash provided by financing activities of \$1,700,000 resulted from draws on our credit facility with Hankey Capital. Cash provided by financing activities during the six months ended June 30, 2018 of \$1,100,000 resulted from the March 2018 issuance of common stock for \$500,000 and a \$600,000 term note in May 2018.

Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the Company’s financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not applicable.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Financial Officer and Chief Executive Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (Exchange Act)) as of June 30, 2019. Based upon that evaluation, our Chief Financial Officer and Chief Executive Officer concluded that as of June 30, 2019, our disclosure controls and procedures were effective.

Changes in Internal Controls

There were no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

In July 2019, Dr. Bessie (Chia) Soo and Dr. Kang (Eric) Ting (“Plaintiffs”) filed a complaint (the “Complaint”) in federal court in Massachusetts against the Company, Bruce Stroeve (“Stroeve”), John Booth (“Booth”), Stephen LaNeve (“LaNeve”, and together with Stroeve and Booth, the “Individual Defendants”), and MTF Biologics (f/k/a The Musculoskeletal Transplant Foundation, Inc.) (“MTF”). The Complaint alleges claims for breach of contract against the Company and tortious interference with contract against the Individual Defendants and MTF arising from the termination of the Professional Service Agreements, dated as of January 8, 2016, between the Company and each of the Plaintiffs. The Individual Defendants have been sued for actions taken by them in connection with their service to the Company as directors and/or officers of the Company. As such, the Company has certain indemnification obligations to the Individual Defendants. The Company and the Individual Defendants intend to vigorously defend against the allegations in the Complaint. Based on the very early stage of the litigation, it is not possible to estimate the amount or range of any possible loss arising from the expenditure of defense fees, a judgment or settlement of the matter.

In July 2018, AFH Holding & Advisory, LLC, Amir Heshmatpour, Steve Richards, and Bessie (Chia) Soo (“Plaintiffs”) filed a verified shareholder derivative complaint (the “Complaint”) in Massachusetts federal court against Bruce Stroeve, John Booth, Stephen LaNeve, Bret Hankey, James Delshad (the “Initial Defendants”), and The Musculoskeletal Transplant Foundation, Inc. (“MTF”), and also named the Company as a nominal defendant. The Complaint alleged claims for violation of Section 14(c) of the Securities Exchange Act of 1934, breach of fiduciary duties, rescission of a reverse stock split, and in the alternative rescissory damages. The Complaint focused on the financing transaction that the Company completed with Hankey Capital in July 2018. The Initial Defendants and the Company filed motions to dismiss on September 28, 2018. After changing counsel and obtaining several extensions of time, instead of responding to the motions to dismiss, Plaintiffs filed an Amended Complaint (the “Amended Complaint”) on February 8, 2019 as a direct, instead of derivative complaint, and added two additional defendants, Don Hankey and Hankey Capital LLC (the “Added Defendants” and together with the Initial Defendants, MTF and the Company, the “Current Defendants”). The Amended Complaint asserted claims for violation of Section 14(c) of the Securities Exchange Act of 1934, breach of fiduciary duties, aiding and abetting breach of fiduciary duties, rescission of a reverse stock split, and in the alternative rescissory damages. On February 22, 2019, the Company and the Initial Defendants filed a Motion to Dismiss the Amended Complaint. The Motion to Dismiss the Amended Complaint was granted in its entirety on July 29, 2019, with the court dismissing the claims for violation of Section 14(c) of the Securities Exchange Act of 1934 with prejudice, and dismissing the remaining claims for lack of jurisdiction.

In the normal course of our business, we may periodically become subjected to various lawsuits. However, there are currently no legal actions pending against us or, to our knowledge, are any such proceedings contemplated.

Item 1A. Risk Factors.

Not applicable.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

On March 19, 2019, the Company issued 1,489,362 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4 to the condensed consolidated financial statements).

On May 7, 2019, the Company issued 1,063,830 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4 to the condensed consolidated financial statements).

On June 20, 2019, the Company issued 1,063,830 Collateral Shares pursuant to a convertible secured note payable agreement (see Note 4 to the condensed consolidated financial statements).

Item 3. Defaults Upon Senior Securities.

None

Item 4. Mine Safety Disclosures.

Not Applicable

Item 5. Other Information.

None

Item 6. Exhibits.

(a) Exhibits required by Item 601 of Regulation S-K.

Exhibit	Description
10.1	<u>Amended and Restated Exclusive License Agreement, dated as of March 21, 2019, by and between the Company and The Regents of the University of California (incorporated herein by reference to Exhibit 10.1 to current report on Form 8-K, File No. 000-53078, filed April 16, 2019)</u>
10.2	<u>Independent Contractor Agreement dated as of June 28, 2019 between the Company and Stephen LaNeve. (incorporated herein by reference to Exhibit 10.1 to current report on Form 8-K, File No. 000-53078, filed June 28, 2019)</u>
10.3	<u>Independent Contractor Agreement dated as of June 28, 2019 between the Company and Deina Walsh (incorporated herein by reference to Exhibit 10.2 to current report on Form 8-K, File No. 000-53078, filed June 28, 2019)</u>
31.1	<u>Certification of the Company's Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, with respect to the registrant's Report on Form 10-Q for the quarter ended June 30, 2019.*</u>
31.2	<u>Certification of the Company's Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, with respect to the registrant's Report on Form 10-Q for the quarter ended June 30, 2019.*</u>
32.1	<u>Certification of the Company's Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*</u>
32.2	<u>Certification of the Company's Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*</u>
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

* Filed Herewith

SIGNATURES

In accordance with Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BONE BIOLOGICS CORPORATION

Dated: August 14, 2019

By: /s/ Jeffrey Frelick

Name: Jeffrey Frelick

Title: Chief Executive Officer