

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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended **June 30, 2019**

or

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

For the transition period from _____ to _____

Commission File Number: **000-55136**

Emerald Bioscience, Inc.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction
of incorporation or organization)

45-0692882

(I.R.S. Employer
Identification No.)

130 North Marina Drive, Long Beach, CA 90803

(Address of principal executive offices) (Zip Code)

(949) 336-3443

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---------------------|-------------------|--|
| None | None | None |

Securities registered pursuant to Section 12(g) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---------------------------------|-------------------|--|
| Common Stock, par value \$0.001 | EMBI | OTCQB |

Indicate by check mark whether the issuer (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the registrant 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 (§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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

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

As of August 7, 2019, there were 134,095,247 shares of the issuer’s \$0.001 par value common stock issued and outstanding.

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FORWARD-LOOKING STATEMENTS

Statements in this Quarterly Report on Form 10-Q that are not descriptions of historical facts are forward-looking statements that are based on management's current expectations and assumptions and are subject to risks and uncertainties. If such risks or uncertainties materialize or such assumptions prove incorrect, our business, operating results, financial condition and stock price could be materially negatively affected. In some cases, you can identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should," "will," "would" or the negative of these terms or other comparable terminology. Factors that could cause actual results to differ materially from those currently anticipated include those set forth in the section titled "Risk Factors" including, without limitation, risks relating to:

- the results of our research and development activities, including uncertainties relating to the discovery of potential product candidates and the preclinical and clinical testing of our product candidates;
- the early stage of our product candidates presently under development;
- our need for substantial additional funds in order to continue our operations, and the uncertainty of whether we will be able to obtain the funding we need;
- our ability to obtain and, if obtained, maintain regulatory approval of our current product candidates, and any of our other future product candidates, and any related restrictions, limitations, and/or warnings in the label of any approved product candidate;
- our ability to retain or hire key scientific or management personnel;
- our ability to protect our intellectual property rights that are valuable to our business, including patent and other intellectual property rights;
- our dependence on UM, third-party manufacturers, suppliers, research organizations, testing laboratories and other potential collaborators;
- our ability to develop successful sales and marketing capabilities in the future as needed;
- the size and growth of the potential markets for any of our approved product candidates, and the rate and degree of market acceptance of any of our approved product candidates;
- competition in our industry; and
- regulatory developments in the United States and foreign countries.

We operate in a rapidly-changing environment and new risks emerge from time to time. As a result, it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. The forward-looking statements included in this report speak only as of the date hereof, and except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in our expectations.

PART I - FINANCIAL INFORMATION**Item 1. Financial Statements****EMERALD BIOSCIENCE, INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED BALANCE SHEETS**

| | June 30, 2019 (Unaudited) | December 31, 2018 (Note 1) |
|---|--|---|
| ASSETS | | |
| Current assets | | |
| Cash | \$ 2,807,826 | \$ 1,853,373 |
| Restricted cash | 4,512 | 4,512 |
| Prepaid expenses | 262,272 | 93,193 |
| Other current assets | 2,609 | 2,609 |
| Total current assets | <u>3,077,219</u> | <u>1,953,687</u> |
| Property and equipment, net | 2,714 | 3,445 |
| Total assets | <u>\$ 3,079,933</u> | <u>\$ 1,957,132</u> |
| LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT) | | |
| Current liabilities | | |
| Accounts payable | \$ 73,459 | \$ 15,597 |
| Other current liabilities | 366,955 | 184,461 |
| Derivative liabilities | 10,662,548 | 15,738,913 |
| Total current liabilities | <u>11,102,962</u> | <u>15,938,971</u> |
| Noncurrent liabilities | | |
| Convertible multi-draw credit agreement - related party, net of discount | 3,102,036 | 1,360,960 |
| Derivative liabilities, non-current | 516,377 | 219,453 |
| Total liabilities | <u>14,721,375</u> | <u>17,519,384</u> |
| Commitments and contingencies | - | - |
| Stockholders' deficit | | |
| Convertible preferred stock, \$0.001 par value; 20,000,000 shares authorized; none issued and outstanding at June 30, 2019 and December 31, 2018 | - | - |
| Common stock, \$0.001 par value; 500,000,000 shares authorized; 134,095,247 issued and outstanding at June 30, 2019 and December 31, 2018 | 134,095 | 133,908 |
| Additional paid-in-capital | 20,318,672 | 17,528,947 |
| Accumulated deficit | (32,094,209) | (33,225,107) |
| Total stockholders' deficit | <u>(11,641,442)</u> | <u>(15,562,252)</u> |
| Total liabilities and stockholders' deficit | <u>\$ 3,079,933</u> | <u>\$ 1,957,132</u> |

See accompanying notes to the condensed consolidated financial statements.

EMERALD BIOSCIENCE, INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(UNAUDITED)

| | For the Three Months Ended June 30, | | For the Six Months Ended June 30, | |
|--|--|----------------|--------------------------------------|-----------------|
| | 2019 | 2018 | 2019 | 2018 |
| Operating expenses | | | | |
| Research and development | \$ 688,041 | \$ - | \$ 1,009,026 | \$ 25,000 |
| General and administrative | 1,082,846 | 1,080,190 | 2,276,928 | 2,306,551 |
| Total operating expenses | 1,770,887 | 1,080,190 | 3,285,954 | 2,331,551 |
| Operating loss | (1,770,887) | (1,080,190) | (3,285,954) | (2,331,551) |
| Other expense (income) | | | | |
| Change in fair value of derivative liabilities | (17,971,742) | 1,580,242 | (5,151,124) | 602,749 |
| Fair value of derivative liabilities in excess of proceeds | - | - | 322,644 | 7,174,634 |
| Financing transaction costs | - | - | - | 137,191 |
| Loss on extinguishment of secured convertible promissory note - related party | - | - | - | 590,392 |
| Interest expense | 293,965 | - | 410,028 | 37,708 |
| Interest income | - | (74) | - | (74) |
| | (17,677,777) | 1,580,168 | (4,418,452) | 8,542,600 |
| Income (loss) before income taxes | 15,906,890 | (2,660,358) | 1,132,498 | (10,874,151) |
| Provision for income taxes | 1,600 | 1,642 | 1,600 | 1,642 |
| Net income (loss) and comprehensive income (loss) | \$ 15,905,290 | \$ (2,662,000) | \$ 1,130,898 | \$ (10,875,793) |
| Earnings (loss) per common share: | | | | |
| Basic | \$ 0.12 | \$ (0.02) | \$ 0.01 | \$ (0.10) |
| Diluted | \$ 0.08 | \$ (0.02) | \$ 0.01 | \$ (0.10) |
| Weighted average shares of common stock outstanding used to compute earnings per share: | | | | |
| Basic | 132,923,037 | 130,668,887 | 132,826,677 | 109,767,054 |
| Diluted | 189,094,958 | 130,668,887 | 172,058,053 | 109,767,054 |

See accompanying notes to the condensed consolidated financial statements.

EMERALD BIOSCIENCE, INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

| | For the Six Months Ended June 30, | |
|--|--|---------------------|
| | 2019 | 2018 |
| Cash flows from operating activities: | | |
| Net income (loss) | \$ 1,130,898 | \$ (10,875,793) |
| Adjustments to reconcile net income (loss) to net cash used in operating activities: | | |
| Depreciation | 731 | 813 |
| Stock-based compensation expense | 344,577 | 330,212 |
| Change in fair value of derivative liabilities | (5,151,124) | 602,749 |
| Fair value of derivative liabilities in excess of proceeds | 322,644 | 7,174,634 |
| Loss on extinguishment of secured convertible promissory note - related party | - | 590,392 |
| Amortization of debt discount | 244,751 | 34,608 |
| Changes in assets and liabilities: | | |
| Prepaid expenses | (169,079) | 135,907 |
| Other current assets | - | (2,609) |
| Accounts payable | 57,862 | (89,001) |
| Accounts payable to related party | - | 65,000 |
| Other current liabilities | 182,494 | (79,487) |
| Net cash used in operating activities | <u>(3,036,246)</u> | <u>(2,112,575)</u> |
| Cash flows from investing activities: | | |
| Purchases of property and equipment | - | (4,385) |
| Net cash used in investing activities | <u>-</u> | <u>(4,385)</u> |
| Cash flows from financing activities: | | |
| Proceeds from Common stock issuance, net of \$16,901 issuance costs | - | 3,233,099 |
| Proceeds from Series B warrant exercises | - | 98,700 |
| Proceeds from secured convertible promissory note - related party | - | 400,000 |
| Proceeds from convertible multi-draw credit agreement, net of \$9,301 issuance costs | 3,990,699 | - |
| Net cash provided by financing activities | <u>3,990,699</u> | <u>3,731,799</u> |
| Net increase in cash and restricted cash | 954,453 | 1,614,839 |
| Cash and restricted cash , beginning of period | \$ 1,857,885 | \$ 264,383 |
| Cash and restricted cash, end of period | \$ 2,812,338 | \$ 1,879,222 |
| <i>Supplemental disclosures of cash-flow information:</i> | | |
| Reconciliation of cash and restricted cash: | | |
| Cash | \$ 2,807,826 | \$ 1,874,720 |
| Restricted cash | 4,512 | 4,502 |
| Total cash and restricted cash shown in the consolidated statements of cash flows | <u>\$ 2,812,338</u> | <u>\$ 1,879,222</u> |
| Cash paid during the period for: | | |
| Interest | \$ 165,277 | \$ - |
| Income taxes | 1,600 | 1,600 |
| <i>Supplemental disclosures of non-cash financing activities:</i> | | |
| Conversion of outstanding preferred stock into common stock | \$ - | \$ 1,947,227 |
| Conversion of outstanding preferred stock subject to redemption into common stock | - | 828,916 |
| Reclassification of warrant liabilities to equity from exercise of warrants | 144,375 | 1,301,866 |
| Fair value of common stock issued in extinguishment of convertible debt | - | 1,710,000 |
| Fair value of warrants issued in connection with financings | - | 10,424,634 |
| Proceeds allocated to equity classified warrants issued with convertible multi-draw credit agreement | 716,110 | - |
| Fair value of compound derivative liability bifurcated from convertible multi-draw credit agreement | 193,414 | - |
| Beneficial conversion feature on convertible multi-draw credit agreement | 1,584,850 | - |

See accompanying notes to the condensed consolidated financial statements.

EMERALD BIOSCIENCE, INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
(UNAUDITED)

| | Convertible Series F Preferred Stock | | Convertible Series D Preferred Stock | | Redeemable Convertible Series B Preferred Stock | | Common Stock | | Stockholders' Deficit | | |
|---|--|---------------------|--|-------------------|--|-------------------|-------------------|------------------|-----------------------------------|------------------------|----------------------------------|
| | Shares | Amounts | Shares | Amounts | Shares | Amounts | Shares | Amounts | Additional Paid -In Capital | Accumulated Deficit | Total Stockholders Deficit |
| | <u>2,000</u> | <u>\$ 1,777,781</u> | <u>200</u> | <u>\$ 169,447</u> | <u>2,833.55</u> | <u>\$ 822,201</u> | <u>33,622,829</u> | <u>\$ 33,623</u> | <u>\$ 10,427,742</u> | <u>\$ (14,030,871)</u> | <u>\$ (3,569,506)</u> |
| Balance, January 1, 2018 | | | | | | | | | | | |
| Stock based compensation expense | - | - | - | - | - | - | 2,500,000 | 2,500 | 227,109 | - | 229,609 |
| Issuance of common stock net of issuance costs of \$16,900 | - | - | - | - | - | - | 32,500,000 | 32,500 | (32,500) | - | - |
| Conversion of Series B Preferred Stock and conversion liability into common stock at \$0.10 and \$0.001 per share | - | - | - | - | (2,834) | (822,201) | 28,385,000 | 28,385 | 800,530 | - | 828,915 |
| Conversion of Series D Preferred Stock to common stock at \$0.10 per share | - | - | (200) | (169,447) | - | - | 2,000,000 | 2,000 | 167,447 | - | 169,447 |
| Conversion of Series F Preferred Stock to common stock at \$0.10 per share | (2,000) | (1,777,781) | - | - | - | - | 20,000,000 | 20,000 | 1,757,781 | - | 1,777,781 |
| Conversion of secured convertible promissory note - related party and accrued interest | - | - | - | - | - | - | 9,000,000 | 9,000 | 1,691,878 | - | 1,700,878 |
| Series B warrant exercises | - | - | - | - | - | - | 4,406,250 | 4,406 | 1,318,284 | - | 1,322,690 |
| Net loss for the three months ended March 31, 2018 | - | - | - | - | - | - | - | - | - | (8,213,793) | (8,213,793) |
| Balance, March 31, 2018 | - | \$ - | - | \$ - | - | \$ - | 132,414,079 | \$ 132,414 | \$ 16,358,271 | \$ (22,244,664) | \$ (5,753,979) |
| Stock based compensation expense | - | - | - | - | - | - | - | - | 100,603 | - | 100,603 |
| Common stock issuance costs paid of \$7,778 | - | - | - | - | - | - | - | - | (7,778) | - | (7,778) |
| Series B warrant exercises | - | - | - | - | - | - | 287,500 | 288 | 77,587 | - | 77,875 |
| Net loss for the three months ended June 30, 2018 | - | - | - | - | - | - | - | - | - | (2,662,000) | (2,662,000) |
| Balance, June 30, 2018 | - | \$ - | - | \$ - | - | \$ - | 132,701,579 | \$ 132,702 | \$ 16,528,683 | \$ (24,906,664) | \$ (8,245,279) |

See accompanying notes to the condensed consolidated financial statements.

EMERALD BIOSCIENCE, INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
(UNAUDITED)

| | Convertible Series F Preferred Stock | | Convertible Series D Preferred Stock | | Redeemable Convertible Series B Preferred Stock | | Stockholders' Deficit | | | | |
|---|--|-------------|--|-------------|--|-------------|-----------------------|-------------------|------------------------|------------------------|-------------------------|
| | | | | | | | Common Stock | | Additional Paid -In | Accumulated | Total |
| | Shares | Amounts | Shares | Amounts | Shares | Amounts | Shares | Amounts | Capital | Deficit | Stockholders Deficit |
| Balance, January 1, 2019 | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>133,907,747</u> | <u>\$ 133,908</u> | <u>\$ 17,528,947</u> | <u>\$ (33,225,107)</u> | <u>\$ (15,562,252)</u> |
| Stock based compensation expense | - | - | - | - | - | - | - | - | 171,493 | - | 171,493 |
| Warrants issued in connection with convertible multi-draw credit agreement, related party | - | - | - | - | - | - | - | - | 716,110 | - | 716,110 |
| Beneficial conversion feature in connection with convertible multi-draw credit agreement - related party | - | - | - | - | - | - | - | - | 1,584,850 | - | 1,584,850 |
| Net loss for the three months ended March 31, 2019 | - | - | - | - | - | - | - | - | - | (14,774,392) | (14,774,392) |
| Balance, March 31, 2019 | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>133,907,747</u> | <u>\$ 133,908</u> | <u>\$ 20,001,400</u> | <u>\$ (47,999,499)</u> | <u>\$ (27,864,191)</u> |
| Stock based compensation expense | - | - | - | - | - | - | - | - | 173,084 | - | 173,084 |
| Series B warrant exercises | - | - | - | - | - | - | 187,500 | 187 | 144,188 | - | 144,375 |
| Net income for the three months ended June 30, 2019 | - | - | - | - | - | - | - | - | - | 15,905,290 | 15,905,290 |
| Balance, June 30, 2019 | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>-</u> | <u>\$ -</u> | <u>134,095,247</u> | <u>\$ 134,095</u> | <u>\$ 20,318,672</u> | <u>\$ (32,094,209)</u> | <u>\$ (11,641,442)</u> |

See accompanying notes to the condensed consolidated financial statements.

EMERALD BIOSCIENCE, INC. AND SUBSIDIARY

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(UNAUDITED)

1. Nature of Operations and Business Activities

Nature of Operations

Emerald Bioscience, Inc. (the “Company”) was initially incorporated in Nevada on March 16, 2011 as Load Guard Logistics, Inc. On October 31, 2014, the Company closed a reverse merger transaction (the “Merger”) pursuant to which Nemus, a California corporation (“Nemus Sub”), became the Company’s wholly-owned subsidiary, and the Company assumed the operations of Nemus Sub. Nemus Sub was incorporated in the State of California on July 17, 2012. On November 3, 2014, the Company changed its name to Nemus Bioscience, Inc. by merging with Nemus Sub.

On February 11, 2019, the Company’s Board of Directors (the “Board”) and majority stockholder unanimously approved an amendment to the Company’s articles of incorporation to change the name of the Company to Emerald Bioscience, Inc. Effective March 25, 2019, we filed a Certificate of Amendment with the Nevada Secretary of State changing the Company’s name to Emerald Bioscience, Inc.

Emerald Bioscience, Inc. is a biopharmaceutical company located in Long Beach, California that plans to research, develop and commercialize therapeutics derived from cannabinoids through several license agreements with the University of Mississippi (“UM”). UM is the only entity federally permitted and licensed to cultivate cannabis for research purposes in the United States.

In January 2018, the Company entered into a securities purchase agreement with Emerald Health Sciences, Inc. (“Emerald Health Sciences”) discussed in Note 5, pursuant to which Emerald Health Sciences purchased a majority of the equity interest in the Company, resulting in a change in control. As part of the transaction, the Company’s Board members, with the exception of Dr. Brian Murphy, the Company’s CEO/CMO, tendered their resignation and Emerald Health Sciences appointed two new nominees to the Board. Later, in October 2018, the Board appointed Dr. Avtar Dhillon, the Chairman, Chief Executive Officer and President of Emerald Health Sciences, as the Executive Chairman of the Company’s Board.

As of June 30, 2019, the Company has devoted substantially all its efforts to securing product licenses, carrying out research and development, building infrastructure and raising capital. The Company has not yet realized revenue from its planned principal operations and is a number of years from potentially being able to do so.

Liquidity and Going Concern

The Company has incurred operating losses and negative cash flows from operations since inception and as of June 30, 2019, had an accumulated deficit of \$32,094,209, a stockholders’ deficit of \$11,641,442 and a working capital deficit of \$8,025,743. The Company anticipates that it will continue to incur net losses into the foreseeable future in order to advance and develop a number of potential drug candidates into preclinical and clinical development activities and support its corporate infrastructure which includes the costs associated with being a public company. As of June 30, 2019, the Company had cash in the amount of \$2,807,826, as compared to \$1,853,373 in cash as of December 31, 2018. This increase is primarily attributable to the proceeds of \$4,000,000 from the Credit Agreement (defined below) with Emerald Health Sciences during the first quarter of 2019. However, without additional funding management believes that the Company will not have enough funds to meet its obligations within one year from the date the Condensed Consolidated Financial Statements are issued. These conditions give rise to substantial doubt as to the Company’s ability to continue as a going concern. The accompanying Condensed Consolidated Financial Statements do not include any adjustments that might result from the outcome of this uncertainty.

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The Company's continued existence is dependent on its ability to raise additional sufficient funding to cover operating expenses and to invest in research and development activities. On October 5, 2018, the Company entered into a Multi Draw Credit Agreement (the "Credit Agreement") with Emerald Health Sciences (See Note 4). Under the Credit Agreement the Company can draw down up to \$20,000,000 from time to time in principal amounts of at least \$250,000. The drawdowns are subject to approval by the Company's Board, which is controlled by the directors and principal executive officer of Emerald Health Sciences.

The Company plans to continue to pursue funding through public or private equity or debt financings, licensing arrangements, asset sales, government grants or other arrangements. However, the Company cannot provide any assurances that such additional funds will be available on reasonable terms, or at all. If the Company raises additional funds by issuing equity securities, substantial dilution to existing stockholders would result. If the Company is unable to secure adequate additional funding, the Company may be forced to reduce spending, extend payment terms with suppliers, liquidate assets where possible, suspend or curtail planned programs or cease operations.

2. Summary of Significant Accounting Policies

Basis of Presentation

In the opinion of management, the accompanying Unaudited Condensed Consolidated Financial Statements have been prepared on a consistent basis with the Company's Audited Consolidated Financial Statements for the fiscal year ended December 31, 2018, and include all adjustments, consisting of only normal recurring adjustments, necessary to fairly state the information set forth herein. The Condensed Consolidated Financial Statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") and therefore, omit certain information and footnote disclosure necessary to present the financial statements in accordance with generally accepted accounting principles in the United States ("GAAP").

The results of operations for the three and six months ended June 30, 2019 are not necessarily indicative of the results to be expected for the year ended December 31, 2019 or any future periods. The Condensed Consolidated Balance sheet as of December 31, 2018 was derived from the Company's audited financial statements as of December 31, 2018, which are included in the Company's Annual Report on Form 10-K filed with the SEC on March 14, 2019. The unaudited financial statements included in this Quarterly Report on Form 10-Q should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018 filed with the SEC on March 14, 2019, which includes a broader discussion of the Company's business and the risks inherent therein.

Certain reclassifications have been made to prior year amounts to conform to the current period's presentation. Such reclassifications had no net effect on total assets, total liabilities, total stockholders' deficit, net losses and cash flows.

Use of Estimates

The preparation of the Unaudited Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the Condensed Consolidated Financial Statements and the reported amounts of income and expense during the reporting period. Actual results could differ from those estimates. The most significant accounting estimates inherent in the preparation of our financial statements include estimates as to the appropriate carrying value of certain assets and liabilities which are not readily apparent from other sources. Such estimates and judgments are utilized for stock-based compensation expense and equity securities, derivative liabilities and debt with embedded features.

Risks and Uncertainties

The Company's operations are subject to a number of risks and uncertainties, including but not limited to, changes in the general economy, the size and growth of the potential markets for any of the Company's product candidates, results of research and development activities, uncertainties surrounding regulatory developments in the United States and the Company's ability to attract new funding.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (the "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. A fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last is considered unobservable, is used to measure fair value:

- Level 1: Valuations for assets and liabilities traded in active markets from readily available pricing sources such as quoted prices in active markets for identical assets or liabilities.
- Level 2: Observable inputs (other than Level 1 quoted prices) such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The carrying values of our financial instruments, with the exception of the convertible multi draw credit agreement - related party and derivative liabilities, including, cash, prepaid expenses, accounts payable, and other current liabilities approximate their fair value due to the short maturities of these financial instruments. The derivative liabilities were valued on a recurring basis utilizing Level 3 inputs.

Advances under the convertible multi draw credit agreement - related party, noncurrent are not recorded at fair value. However, fair value can be approximated and disclosed utilizing Level 3 inputs and independent third-party valuation techniques (See Note 3). At June 30, 2019, the fair value of the advances under the Credit Agreement were estimated at \$7,419,463. The carrying amount of the liability at June 30, 2019 is \$3,102,036 and is included in Convertible multi draw credit agreement - related party, net of discount in the Company's balance sheets.

Convertible Instruments

The Company accounts for hybrid contracts with embedded conversion features in accordance with GAAP. ASC 815, *Derivatives and Hedging Activities* ("ASC 815") requires companies to bifurcate conversion options from their host instruments and account for them as free standing derivative financial instruments according to certain criteria. The criteria includes 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.

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The Company accounts for convertible debt instruments with embedded conversion features in accordance with ASC 470-20, *Debt with Conversion and Other Options* (“ASC 470-20”) if it’s determined that the conversion feature should not be bifurcated from their host instruments. Under ASC 470-20, the Company records, when necessary, discounts to convertible notes for the intrinsic value of conversion options embedded in debt instruments based upon the difference between the fair value of the underlying common stock at the commitment date and the embedded effective conversion price. When the Company determines that the embedded conversion option should be bifurcated from its host instrument, the embedded feature is accounted for in accordance with ASC 815. Under ASC 815, a portion of the proceeds received upon the issuance of the hybrid contract is allocated to the fair value of the derivative. The derivative is subsequently marked to market at each reporting date based on current fair value, with the changes in fair value reported in results of operations.

The Company also follows ASC 480-10, *Distinguishing Liabilities from Equity* (“ASC 480-10”) when evaluating the accounting for its hybrid instruments. A financial instrument that embodies an unconditional obligation, or a financial instrument other than an outstanding share that embodies a conditional obligation, that the issuer must or may settle by issuing a variable number of its equity shares shall be classified as a liability (or an asset in some circumstances) if, at inception, the monetary value of the obligation is based solely or predominantly on any one of the following: (a) a fixed monetary amount known at inception (for example, a payable settled with a variable number of the issuer’s equity shares); (b) variations in something other than the fair value of the issuer’s equity shares (for example, a financial instrument indexed to the Standard and Poor’s S&P 500 Index and settled with a variable number of the issuer’s equity shares); or (c) variations inversely related to changes in the fair value of the issuer’s equity shares (for example, a written put option that could be net share settled). Hybrid instruments meeting these criteria are not further evaluated for any embedded derivatives and are carried as a liability at fair value at each balance sheet date with a re-measurement reported other (income) expense in the accompanying Condensed Consolidated Statements of Comprehensive Income (Loss).

When determining short-term vs. long-term classification of derivative liabilities, the Company first evaluates the instruments’ exercise provisions. Generally, if a derivative is a liability and exercisable within one year, it will be classified as short-term. However, because of the unique provisions and circumstances that may impact the accounting for derivative instruments, the Company carefully evaluates all factors that could potentially restrict the instrument from being exercised or create a situation where exercise would be considered remote. The Company re-evaluates its derivative liabilities at each reporting period end and makes updates for any changes in facts and circumstances that may impact classification.

Warrants Issued in Connection with Financings

The Company generally accounts for warrants issued in connection with debt and equity financings as a component of equity, unless the warrants include a conditional obligation to issue a variable number of shares or there is a deemed possibility that the Company may need to settle the warrants in cash. For warrants issued with a conditional obligation to issue a variable number of shares or the deemed possibility of a cash settlement, the Company records the fair value of the warrants as a liability at each balance sheet date and records changes in fair value in other (income) expense in the Condensed Consolidated Statements of Comprehensive Income (Loss).

Debt Issuance Costs and Interest

Discounts related to bifurcated derivatives, freestanding instruments issued in bundled transactions and issuance costs are recorded as a reduction to the carrying value of the debt and amortized over the life of the debt using the effective interest method. The Company makes changes to the effective interest rate, as necessary, on a prospective basis. For debt facilities that provide for multiple advances, the Company initially defers any issuance costs until the first advance is made and then amortizes the costs over the life of the facility.

Research and Development Expenses and Licensed Technology

Research and development costs are expensed when incurred. These costs may consist of external research and development expenses incurred under agreements with third-party contract research organizations and investigative sites, third-party manufacturing organizations and consultants; license fees; employee-related expenses, which include salaries and benefits for the personnel involved in our preclinical and clinical drug development activities; and facilities expense, depreciation and other allocated expenses; and equipment and laboratory supplies.

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Costs incurred for the rights to use licensed technologies in the research and development process, including licensing fees and milestone payments, are charged to research and development expense as incurred in situations where the Company has not identified an alternative future use for the acquired rights, and are capitalized in situations where there is an identified alternative future use. No cost associated with the use of licensed technologies has been capitalized to date.

Stock-Based Compensation for Employees

Stock-based compensation cost is estimated at the grant date based on the fair value of the award, and the cost is recognized as expense ratably over the vesting period with forfeitures accounted for as they occur. The Company uses the Black-Scholes Merton option pricing model for estimating the grant date fair value of stock options using the following assumptions:

- Volatility - Stock price volatility is estimated over the expected term based on a blended rate of industry peers and the Company's actual stock volatility adjusted for periods in which significant financial variability was identified.
- Expected term - The expected term is based on a simplified method which defines the life as the weighted average of the contractual term of the options and the vesting period for each award.
- Risk-free rate - The risk-free interest rate for the expected term of the option is based on the average market rate on U.S. treasury securities in effect during the period in which the awards were granted.
- Dividends - The dividend yield assumption is based on our history and expectation of paying no dividends in the foreseeable future.

Earnings/ Loss Per Share of Common Stock

The Company applies FASB ASC No. 260, *Earnings per Share*. The basic earnings or net loss per share of common stock is computed by dividing loss available to common stockholders by the weighted-average number of shares of common stock outstanding for the period. The diluted earnings or net loss per share of common stock is computed by giving effect to all potential common stock equivalents outstanding for the period determined using the treasury stock method. For purposes of this calculation, convertible preferred stock, options to purchase common stock, restricted stock subject to vesting, warrants to purchase common stock and common shares underlying convertible debt instruments were considered to be common stock equivalents. The following outstanding shares of common stock equivalents were excluded from the computation of diluted earnings per share of common stock for the periods presented because including them would have been antidilutive:

| | Three Months Ended June 30, (Unaudited) | | Six Months Ended June 30, (Unaudited) | |
|---|--|-------------|--|-------------|
| | 2019 | 2018 | 2019 | 2018 |
| Stock options | 2,411,846 | 1,850,073 | 2,814,505 | 1,850,073 |
| Unvested restricted stock | 209,055 | 1,918,501 | 237,798 | 1,918,501 |
| Common shares underlying convertible debt | - | - | 11,722,222 | - |
| Warrants | 18,844,002 | 51,155,750 | 20,353,145 | 51,155,750 |

Recent Accounting Pronouncements

In November 2018, the FASB issued ASU No. 2018-08 *Collaborative Arrangements* (Topic 808) intended to improve financial reporting around collaborative arrangements and align the current guidance under ASC 808 with ASC 606 *Revenue from Contracts with Customers*. The ASU affects all companies that enter into collaborative arrangements. The ASU clarifies when certain transactions between collaborative arrangement participants should be accounted for as revenue under Topic 606 and changes certain presentation requirements for transactions with collaborative arrangement participants that are not directly related to sales to third parties. For public companies, the standard is effective for fiscal years beginning after December 15, 2019 and interim periods therein. Earlier adoption is permitted for any annual or interim period for which consolidated financial statements have not yet been issued. The Company has not entered into any collaborative arrangements and therefore does not currently expect the adoption of this standard to have a material effect on its Condensed Consolidated Financial Statements. The Company plans to adopt this ASU either on the effective date of January 1, 2020 or possibly in an earlier period if a collaborative arrangement is entered. Upon adoption, the Company will utilize the retrospective transition approach, as prescribed within this ASU.

Recently Adopted Accounting Standards

In February 2016, the FASB issued ASU No. 2016-02 *Leases* (Topic 842). In January, July and December 2018, and in March 2019, the FASB issued additional amendments to the new lease guidance relating to, transition, and clarification. This ASU requires most lessees to recognize right of use assets and lease liabilities and recognize expenses in a manner similar to current accounting standards. For public companies, the standard is effective for fiscal years beginning after December 15, 2018 and interim periods therein. The Company adopted this ASU on the effective date of January 1, 2019. Pursuant to ASU 2018-11, issued in July 2018, the Company elected to use the effective date as of the date of application for transition. Upon adoption there was no cumulative effect recorded to the accumulated deficit, as the Company has no lease terms in excess of one year. The Company has elected the short-term lease practical expedient under the ASU which resulted in no change to the current recognition accounting under ASC 840.

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260), Distinguishing Liabilities from Equity (Topic 480) and Derivatives and Hedging (Topic 815): I. Accounting for Certain Financial Instruments with Down Round Features; 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"). Part I of this update addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. Part II of this update addresses the difficulty of navigating *Topic 480, Distinguishing Liabilities from Equity*, because of the existence of extensive pending content in the FASB Accounting Standards Codification. This pending content is the result of the indefinite deferral of accounting requirements about mandatorily redeemable financial instruments of certain nonpublic entities and certain mandatorily redeemable non-controlling interests. The amendments in Part II of this update do not have an accounting effect. The Company adopted this ASU on the effective date of January 1, 2019. The adoption of this standard using a retrospective cumulative-effect adjustment approach had no impact to the Company's accumulated deficit. The outstanding warrants issued in the Emerald Financing contain a down-round provision. However, in the absence of the down-round these warrants would require liability accounting and be considered derivatives due to the presence of a put option (See Note 3). As such, the adoption of ASU 2017-11 on January 1, 2019 did not have an impact on the Company's Condensed Consolidated Financial Statements and Notes thereto.

3. Warrants and Derivative Liabilities

Warrants

There are significant judgments and estimates inherent in the determination of the fair value of the Company's warrants. These judgments and estimates included the assumptions regarding its future operating performance, the time to completing a liquidity event and the determination of the appropriate valuation methods. If the Company had made different assumptions, the fair value of the warrants could have been significantly different (See Note 2).

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Warrants vested and outstanding as of June 30, 2019 are summarized as follows:

| Source | Exercise Price | Term (Years) | Amount Vested and Outstanding |
|--|----------------|--------------|-------------------------------|
| Pre 2015 Common Stock Warrants | \$ 1.00 | 6-10 | 4,000,000 |
| 2015 Common Stock Warrants | \$ 1.15-\$5.00 | 5-10 | 442,000 |
| 2015 Series B Financing | | | |
| Common Stock Warrants to Series B Stockholders | \$ 0.00 | 5 | 1,031,250 |
| 2016 Common Stock Warrants to Service Providers | \$ 1.15 | 10 | 40,000 |
| 2016 Series C Common Stock Warrants to Placement Agent | \$ 0.40 | 5 | 125,000 |
| 2017 Series D Common Stock Warrants to Placement Agent | \$ 0.25 | 5 | 480,000 |
| 2017 Common Stock Warrants to Service Provider | \$ 0.41 | 5 | 125,000 |
| 2018 Emerald Financing Warrants | \$ 0.10 | 5 | 44,200,000 |
| Emerald Multi Draw Credit Agreement Warrants | \$ 0.50 | 5 | 7,500,000 |
| Total warrants vested and outstanding as of June 30, 2019 | | | 57,943,250 |

Emerald Multi Draw Credit Agreement Warrants

During the six months ended June 30, 2019, the Company issued 5,000,000 fully vested common stock warrants to Emerald Health Sciences, in conjunction with advances under the Credit Agreement discussed below (See Note 4). The warrants are equity classified at issuance and the Company allocated an aggregate of \$716,110 of the gross proceeds to the warrants on a relative fair value basis. The proceeds allocated to the warrants were recorded as discounts to each advance and are being amortized over the term of the debt. The warrants vested immediately and had an estimated aggregate fair value of \$1,830,573 utilizing the Black-Scholes option pricing model with the following assumptions:

| | At Issuance |
|-------------------------------|--------------|
| Dividend yield | 0.00% |
| Volatility factor | 91.6-92.1% |
| Risk-free interest rate | 2.23-2.51% |
| Expected term (years) | 5.0 |
| Underlying common stock price | \$ 0.33-0.69 |

2018 Emerald Financing Warrants

In January and February 2018, the Company issued an aggregate of 40,800,000 and 3,400,000 fully vested common stock warrants to Emerald Health Sciences and an accredited investor, respectively, in conjunction with the Emerald Financing discussed below (See Note 5). The Company reviewed the warrants for liability or equity classification under the guidance of ASC 480-10, *Distinguishing Liabilities from Equity*, and concluded that these warrants should be classified as liabilities. See additional discussion below, *Derivative Liabilities- Emerald Financing Warrant Liability*.

Derivative Liabilities

The following tables summarize the activity of derivative liabilities for the periods indicated:

| Six Months Ended June 30, 2019 | | | | | |
|---|---|--|---|---|--|
| | December 31, 2018, Fair Value of Derivative Liabilities | Fair Value of Derivative Liabilities Issued | Change in Fair value of Derivative Liabilities | Reclassification of Derivatives to Equity | June 30, 2019, Fair Value of Derivative Liabilities |
| Emerald Multi Draw Credit Agreement - compound derivative liability (1) | \$ 219,453 | \$ 516,058 | \$ (219,134) | \$ - | \$ 516,377 |
| Emerald Financing - warrant liability (2) | 15,251,413 | - | (4,887,929) | - | 10,363,484 |
| Series B - warrant liability (3) | 487,500 | - | (44,061) | (144,375) | 299,064 |
| Total derivative liabilities | \$ 15,958,366 | \$ 516,058 | \$ (5,151,124) | \$ (144,375) | \$ 11,178,925 |
| Less, noncurrent portion of derivative liabilities | (219,453) | | | | (516,377) |
| Current balance of derivative liabilities | \$ 15,738,913 | | | | \$ 10,662,548 |

| Six Months Ended June 30, 2018 | | | | | |
|--|---|--|---|---|--|
| | December 31, 2017, Fair Value of Derivative Liabilities | Fair Value of Derivative Liabilities Issued | Change in Fair value of Derivative Liabilities | Reclassification of Derivatives to Equity | June 30, 2018, Fair Value of Derivative Liabilities |
| Emerald Financing - warrant liability (2) | \$ - | \$ 10,424,634 | \$ (814,071) | \$ - | \$ 9,610,563 |
| Series B - warrant liability (3) | 551,322 | - | 1,231,820 | (1,301,866) | 481,276 |
| Emerald Convertible Promissory Note - conversion liability (4) | 265,000 | 360,000 | 185,000 | (810,000) | - |
| Series B Preferred Stock - conversion liability (5) | 6,715 | - | - | (6,715) | - |
| Total derivative liabilities | \$ 823,037 | \$ 10,784,634 | \$ 602,749 | \$ (2,118,581) | \$ 10,091,839 |
| Less, noncurrent portion of derivative liabilities | (551,322) | | | | - |
| Current balance of derivative liabilities | \$ 271,715 | | | | \$ 10,091,839 |

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Emerald Multi Draw Credit Agreement Compound Derivative Liability (1)

In connection with the advances under the Credit Agreement (See Note 4), the Company bifurcated a compound derivative liability related to a contingent interest feature and acceleration upon default provision (contingent put option) provided to Emerald Health Sciences. The Company's estimate of fair value of the compound derivative liability was determined by using a differential cash flows valuation model, wherein the fair value of the underlying debt facility and its conversion right are estimated both with and without the presence of the contingent interest feature, holding all other assumptions constant. The resulting difference between the estimated fair values in both scenarios is the estimated fair value of the compound derivative. The fair value of the underlying debt facility is estimated by calculating the expected cash flows with consideration of the estimated probability of a change in control transaction, defined as an event of default by the agreement, and applying the expected default interest rate from the date of such default through maturity. The expected cash flows are then discounted back to the reporting date using a benchmark market yield. The conversion right component of the compound derivative is measured using a standard Black-Scholes model for each payment period. Because Emerald Health Sciences would forgo the contingent interest if the contingent put option was exercised upon an event of default, the value ascribed to the contingent put option within the compound derivative is de minimis.

Emerald Financing Warrant Liability (2)

In January and February 2018, the Company issued 44,200,000 warrants to purchase common stock in conjunction with the Emerald Financing discussed above. The warrants vest immediately and have an exercise price of \$0.10 per share with a term of five years and are exercisable in cash or through a cashless exercise provision. The warrants contain an anti-dilution protection feature provided to the investors if the Company subsequently issues or sells any shares of common stock, stock options, or convertible securities at a price less than the exercise price of \$0.10. The exercise price is automatically adjusted down to the price of the instrument being issued. In addition, the warrants contain a contingent put option if the Company undergoes a subsequent financing that results in a change in control. The warrant holders also have the right to participate in subsequent financing transactions on an as-if converted basis.

The Company reviewed the warrants for liability or equity classification under the guidance of ASC 480-10, *Distinguishing Liabilities from Equity*, and concluded that the warrants should be classified as a liability and re-measured to fair value at the end of each reporting period. The Company also reviewed the warrants under ASC 815, *Derivatives and Hedging/Contracts in Entity's Own Equity*, and determined that the warrants also meet the definition of a derivative. With the assistance of a third-party valuation specialist, the Company valued the warrant liabilities utilizing the Monte Carlo valuation method pursuant to the accounting guidance of ASC 820-10, *Fair Value Measurement*s. On the closing dates, the Company estimated that the fair value of the warrants issued on January 19, 2018 and February 16, 2018 was \$4,700,000 and \$5,700,000, respectively.

The warrant liabilities have been valued using Monte Carlo simulations conducted at the closing dates of January 19, 2018 and February 16, 2018 and at the balance sheet dates using the following assumptions:

| | June 30, 2019 | December 31, 2018 | At Issuance |
|-------------------------------|----------------------|--------------------------|--------------------|
| Dividend yield | 0.00% | 0.00% | 0.00% |
| Volatility factor | 90.4-90.8% | 92.1-92.4% | 70.0% |
| Risk-free interest rate | 1.70 % | 2.49% | 2.45-2.6 0% |
| Expected term (years) | 3.56-3.64 | 4.05-4.13 | 5.0 |
| Underlying common stock price | \$ 0.29 | \$ 0.40 | \$ 0.29-0.30 |

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Because fair value assigned to the warrants exceeded the proceeds received in the Emerald Financing, none of the consideration was allocated to common stock and the Company recorded an adjustment for the difference between the fair value of the warrant liabilities and the total proceeds received to other expense in the Condensed Consolidated Statements Comprehensive Income (Loss) for the six months ended June 30, 2018 as follows:

| | Closing | | |
|---|---------------------|---------------------|---------------------|
| | January | February | Total |
| | 2018 | 2018 | |
| Initial Fair Value of Emerald Financing Warrant Liability | \$ 4,717,211 | \$ 5,707,423 | \$ 10,424,634 |
| Less: Proceeds from Emerald Financing | 1,500,000 | 1,750,000 | 3,250,000 |
| Excess over proceeds adjustment | \$ 3,217,211 | \$ 3,957,423 | \$ 7,174,634 |

In addition, because the aggregate proceeds were allocated to the fair value of the Emerald Financing warrant liability, issuance costs totaling \$137,192 were charged to other expense during the six months ended June 30, 2018.

Series B Warrant Liability (3)

In conjunction with the Redeemable Convertible Series B Preferred Stock financing, the Company issued the 2015 Series B Financing Warrants originally exercisable at a price of \$1.15 per share. The warrants are exercisable in cash or through a cashless exercise provision and contain certain cash redemption rights. The Series B warrants also had a “down-round” protection feature if the Company subsequently issued or sold any shares of common stock, stock options, or convertible securities at a price less than the current exercise price. The down round provision was triggered and automatically adjusted down to \$0.10 on December 28, 2017, after the Company entered into the Convertible Promissory Note (See Note 4) and again to \$0.00 on January 19, 2018, as a result of the Emerald Financing (See Note 5). The strike price for these warrants is now permanently reset. However, because the remaining warrant holders still have certain cash redemption rights upon the occurrence of certain fundamental transactions, as defined in the Series B warrant agreements, the warrants continue to require liability classification. Subsequent to the repricing that occurred as a result of the Emerald Financing, the warrants have been valued using a Black Scholes Merton Option Pricing Model.

The Company reviewed the classification of the warrants as liabilities or equity under the guidance of ASC 480-10, *Distinguishing Liabilities from Equity*, and concluded that the Series B warrants should be classified as a liability. The Company then applied the fair value allocation methodology for allocating the proceeds of \$5,000,000 received from the Series B financing between the conversion liability and the warrants with the residual amount being allocated to the Series B Preferred Stock.

To compute the fair value of the warrants, the Company utilized the following assumptions in the Black Scholes Merton Option Pricing Model for the periods indicated:

| | As of June 30, 2019 | As of December 31, 2018 |
|---|---------------------------|-------------------------------|
| Dividend yield | 0.00% | 0.00% |
| Volatility factor | 93.1% | 93.0% |
| Risk-free interest rate | 1.90% | 2.79% |
| Expected term (years) | 1.14 | 1.64-1.65 |
| Weighted average fair value of warrants | \$ 0.29 | \$ 0.40 |

Emerald Convertible Promissory Note Conversion Liability (4)

In connection with the Convertible Promissory Note (See Note 4), the Company bifurcated a conversion liability related to an embedded conversion feature with a down-round protection provision. The Company valued the conversion liability pursuant to the accounting guidance of ASC 820-10, *Fair Value Measurements*, as of the financing date of each closing utilizing the Black Scholes valuation model and the following assumptions:

| | January 19, 2018 | December 28, 2017 |
|-------------------------------|---------------------|----------------------|
| Dividend yield | 0.00% | 0.00% |
| Volatility factor | 70.0% | 70.0% |
| Risk-free interest rate | 1.29% | 1.39% |
| Expected term (years) | 0.003 | 0.25 |
| Underlying common stock price | \$ 0.19 | \$ 0.15 |

The fair values of the conversion liabilities on December 28, 2017 and January 19, 2018 were \$265,000 and \$360,000, respectively. The change in value related to the conversion liability at December 31, 2017 was deemed immaterial due to no substantial change in the assumptions from issuance until year end. In connection with the Emerald Financing discussed in Note 5 below, the Convertible Promissory Note was converted, and the conversion liability was extinguished with the debt.

Series B Preferred Stock Conversion Liability (5)

On August 20, 2015, in connection with the Redeemable Convertible Series B Preferred Stock financing, the Company bifurcated a conversion liability related to a down-round protection provided to the Series B investors. The value of this embedded derivative was determined utilizing a “with and without” method by valuing the Series B Preferred Stock with and without the down round protection. During the first fiscal quarter of 2018, all the remaining Series B Preferred Stock was converted to common stock and as a result, the Series B conversion liability was reduced to zero. The reduction of this liability totaling \$6,715 was recorded to equity during the six months ended June 30, 2018.

4. Convertible Debt - Related Party

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The Company's Convertible Debt with Emerald Health Sciences consists of the following:

| | As of June 30, 2019 | As of December 31, 2018 |
|---|---------------------------|-------------------------------|
| Total principal value | \$ 6,000,000 | \$ 2,000,000 |
| Unamortized debt discount | (2,843,217) | (587,617) |
| Unamortized debt issuance costs | (54,747) | (51,423) |
| Carrying value of total convertible debt - related party | \$ 3,102,036 | \$ 1,360,960 |
| Less, noncurrent portion | (3,102,036) | (1,360,960) |
| Current convertible debt - related party | \$ - | \$ - |

For the three and six months ended June 30, 2019 and 2018, the Company's interest expense consists of the following:

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|-----------------------------------|--------------------------------|-------------|------------------------------|------------------|
| | 2019 | 2018 | 2019 | 2018 |
| Interest expense – stated rate | \$ 106,167 | \$ - | \$ 165,277 | \$ 3,100 |
| Non-cash interest expense: | | | | |
| Amortization of debt discount | 184,313 | - | 238,293 | 34,608 |
| Amortization of transaction costs | 3,485 | - | 6,458 | - |
| | \$ 293,965 | \$ - | \$ 410,028 | \$ 37,708 |

Multi Draw Credit Agreement

On October 5, 2018, the Company entered into the Credit Agreement with Emerald Health Sciences, a related party (See Note 8). The Credit Agreement provides for a credit facility to the Company of up to \$20,000,000 and is unsecured. Advances under the Credit Agreement bear interest at an annual rate of 7% (payable quarterly in arrears) and mature on October 5, 2022. At Emerald Health Sciences' election, advances and unpaid interest may be converted into common stock at a fixed conversion price of \$0.40, subject to customary adjustments for stock splits, stock dividends, recapitalizations, etc. As of June 30, 2019, the unused portion of the credit facility is \$14,000,000.

The Credit Agreement provides for customary events of default which may result in the acceleration of the maturity of the advances in addition to, but not limited to, cross acceleration to certain other indebtedness of the Company or a change in control. In the case of an event of default arising from specified events of bankruptcy or insolvency or reorganization, all outstanding advances will become due and payable immediately without further action or notice. If any other event of default under the Credit Agreement occurs or is continuing, Emerald Health Sciences may, by written notice, terminate its commitment to make any advances and/or declare all the advances with any other amounts payable due immediately. If any amount under the Credit Agreement is not paid when due, such overdue amount shall bear interest at an annual default interest rate of the applicable rate plus 10%, until such amount is paid in full.

In connection with each advance under the Credit Agreement, the Company agreed to issue to Emerald Health Sciences warrants to purchase shares of common stock in an amount equal to 50% of the number of shares of common stock that each advance may be converted into. The warrants have an exercise price of \$0.50 per share, a term of five years and are immediately exercisable upon issuance. The exercise price is subject to adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events or upon any distributions of assets, including cash, stock or other property to the Company's stockholders (See Note 3).

In accounting for each convertible advance and the warrants issued under the Credit Agreement, the Company allocates the proceeds between the debt host and the freestanding warrants on a relative fair value basis for each advance. On the date of each advance if the effective conversion rate of the debt is less than the market value of the Company's common stock the Company records a beneficial conversion feature as a discount to the debt and an increase to additional paid in capital. The debt discounts related to the warrants, beneficial conversion features and compound derivatives, if any, are being amortized over the term of the Credit Agreement using the effective interest rate method. Amortization of the debt discount is recognized as non-cash interest expense and the compound derivatives related to the contingent interest feature and acceleration upon default provision are remeasured at fair value in subsequent periods in the Company's Condensed Consolidated Balance Sheets.

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On November 1, 2018, the initial advance under Credit Agreement was made for \$2,000,000 and the Company issued 2,500,000 warrants (See Note 3). In accounting for the convertible advances and warrants under the Credit Agreement \$1,684,920 of the proceeds was allocated to the debt and \$315,080 was allocated to equity classified warrants. A beneficial conversion feature of \$90,080 and a compound derivative liability of \$204,102 were also recorded.

During the six months ended June 30, 2019, the Company initiated two advances under Credit Agreement, each in the amount of \$2,000,000, for an aggregate principal amount of \$4,000,000, and the Company issued an aggregate of 5,000,000 warrants to Emerald Health Sciences (See Note 3). In accounting for the convertible advances and warrants issued under the Credit Agreement, an aggregate amount of \$3,283,890 was allocated to the debt and \$716,110 was allocated to equity classified warrants. A beneficial conversion feature of \$1,584,850 and compound derivative liabilities of an aggregate of \$516,058 have been recorded (See Note 3). Of the \$516,058 in compound derivatives, \$322,644 was recorded as other expense in the Condensed Consolidated Statements of Comprehensive Income (Loss) for the six months ended June 30, 2019 as value of the beneficial conversion feature exceeded the proceeds allocated to the third draw.

Aggregate financing costs of \$63,007 incurred in connection with the Credit Agreement have been recorded as a discount to the debt host and are being amortized using the effective interest rate method and recognized as non-cash interest expense over the term of the Credit Agreement.

As of June 30, 2019, the unamortized debt discount will be amortized over a remaining period of approximately 3.27 years. The fair value of the underlying shares of the convertible multi draw credit agreement was \$4,350,000 at June 30, 2019. As of June 30, 2019, the if-converted value did not exceed the principal balance.

Secured Convertible Promissory Note

On December 28, 2017, the Company entered into a convertible Secured Promissory Note and Security Agreement with Emerald Health Sciences (the "Convertible Promissory Note"). The Convertible Promissory Note provided for aggregate gross proceeds to the Company of up to \$900,000 and was secured by all the Company's assets. Drawdowns on the Convertible Promissory Note were interest bearing at an annual rate of 12% (compounding semi-annually), payable at maturity. The Convertible Promissory Note matured upon the earlier of June 30, 2018 or upon a default event, as defined, and elected by Emerald Health Sciences. At Emerald Health Sciences' election, drawdowns and unpaid interest were convertible into common stock at a conversion price of \$0.10, subject to a full-ratchet antidilution right. The Convertible Promissory Note was automatically converted upon the occurrence of the private placement transaction with Emerald Health Sciences (the Emerald Financing) in January 2018.

The Company received proceeds of \$500,000 on December 28, 2017, and on January 19, 2018 the Company received the remaining \$400,000 in funding as it had satisfied the conditions required. These conditions required receipt of conversion notices from all the existing Series B stockholders to convert their preferred shares to common stock. Such conversions occurred in January and February of 2018. On each financing date, the Company bifurcated a conversion liability from the Convertible Promissory Note related to the embedded conversion feature with a down-round protection provision (See Note 3). This resulted in a conversion liability of \$265,000 at the first financing date which was one trading day prior to December 31, 2017. The second funding in January 2018 resulted in an additional conversion liability of \$360,000. The conversion liabilities were recorded as a discount to the debt at each draw down date and were being amortized to interest expense.

On January 19, 2018, in conjunction with the Emerald Financing (See Note 5), the Convertible Promissory Note was automatically converted into common stock at a conversion price of \$0.10 per share for 9,000,000 shares of common stock. Upon conversion, the debt and associated conversion liability were extinguished resulting in a loss on extinguishment of \$590,392 which was recorded as other expense for the six months ended June 30, 2018. For the six months ended June 30, 2018, the effective interest rate related to the Convertible Promissory Note was 13.94%.

5. Stockholders' Deficit and Capitalization

Common Stock

On November 14, 2018, the Company amended its articles of incorporation to increase the number of authorized shares of common stock available for issuance to 500,000,000.

Emerald Financing

On January 19, 2018, the Company entered into a Securities Purchase Agreement pursuant to which the Company sold to Emerald Health Sciences 15,000,000 shares of common stock and a warrant to purchase 20,400,000 shares of common stock at an exercise price of \$0.10 for aggregate gross proceeds of \$1,500,000 (the "Emerald Financing"). This transaction also resulted in the conversion of the \$900,000 Convertible Promissory Note (See Note 4). As part of the transaction, the Company's Board members, with the exception of Dr. Brian Murphy, the Company's CEO/CMO, tendered their resignation and Emerald Health Sciences appointed two new nominees to the Board. The Securities Purchase Agreement also provides that in the case of a subsequent financing in which the purchase price is less than \$0.10 per share, Emerald Health Sciences shall be issued additional shares in order to protect against anti-dilution.

The second closing under the Emerald Financing occurred on February 16, 2018, pursuant to which the Company issued and sold to Emerald Health Sciences 15,000,000 shares of the Company's common stock, and a warrant to purchase 20,400,000 shares of common stock at an exercise price of \$0.10 per share for a term of five years. In addition, an accredited investor purchased 2,500,000 shares of common stock and a warrant to purchase 3,400,000 shares of common stock at an exercise price of \$0.10 per share for a term of five years. The Company received aggregate gross proceeds of \$1,750,000 from the second closing. In connection with the private placement, the Company incurred issuance costs of \$154,092, of which \$137,192 was allocated to the warrant liability and expensed during the period and \$16,900 was recorded as a reduction to additional paid in capital from the issuance of common stock.

Preferred Stock

The Company has 20,000,000 authorized shares of preferred stock, with a par value of \$0.001 per share. As of June 30, 2019, there were no shares of preferred stock issued and outstanding.

During the six months ended June 30, 2018, all remaining Preferred Series B, D, and F shares that were previously issued and outstanding were converted to common stock.

6. Stock-Based Compensation

Stock Incentive Plan

On October 31, 2014, after the closing of the Merger, the Board approved the Company's 2014 Omnibus Incentive Plan (the "2014 Plan"). The 2014 Plan initially reserved 3,200,000 shares for future grants, and in October 2018, the Company increased the share reserve under the 2014 Plan to equal 10% of the number of issued and outstanding shares of common stock of the Company. The 2014 Plan authorizes the issuance of awards including stock options, stock appreciation rights, restricted stock, stock units and performance units to employees, directors, and consultants of the Company. As of June 30, 2019, the Company had 9,161,023 shares available for future grant under the 2014 Plan.

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Stock Options

There was no option activity under the Company's 2014 Plan during the three and six months ended June 30, 2019.

Restricted Stock Awards

There was no restricted stock award ("RSA") activity under the Company's 2014 Plan during the three and six months ended June 30, 2019.

On February 28, 2018, in conjunction with the signing of the K2C separation agreement discussed in Note 8 below, Mr. Lykos' RSAs amounting to 325,000 shares vested immediately resulting in a Type III award modification and a credit to stock compensation of \$98,042 for the three months ended March 31, 2018 due to a lower fair value of those shares as of the modification date.

On May 25, 2018, in conjunction with the signing of her separation agreement, the former Nemus CFO, Ms. Elizabeth Berecz's RSA's amounting to 350,000 shares vested immediately resulting in a Type III award modification and a credit to stock compensation of \$97,183 for the three and six months ended June 30, 2018 due to a lower fair market value of those shares as of the modification date as compared to the fair value immediately prior to acceleration.

Awards Granted Outside the 2014 Plan

Options

There was no option activity outside of the 2014 Plan during the three and six months ended June 30, 2019.

On May 25, 2018, the Company entered into Stock Option Agreement with Douglas Cesario, CFO, granting 1,195,073, stock options with an exercise price equal to \$0.25 and a grant date fair market value of \$200,172. The options vest 25% on July 23, 2018, and the remaining 75% vest 1/33 on each of the next 33 months thereafter. Options will fully vest upon a Triggering Event, including a Sale of the Company or a Merger that results in change of control.

Restricted Stock Awards

The following is a summary of RSA activity outside of the Company's 2014 Plan during the six months ended June 30, 2019:

| | Number of Shares | Weighted Average Grant Date Fair Value |
|------------------------------------|-----------------------------|---|
| Unvested, December 31, 2018 | 900,000 | \$ 0.19 |
| Granted | - | - |
| Released | (450,000) | 0.19 |
| Unvested, June 30, 2019 | 450,000 | \$ 0.19 |

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On February 28, 2018, in conjunction with the signing of the K2C separation agreement discussed in Note 8 below, Mr. Lykos' Restricted stock awards amounting to 900,000 shares became immediately vested resulting in a Type III award modification and stock compensation expense of \$216,000 for the three months ended March 31, 2018, due to an increase in the fair value of the award immediately before and after the modification date.

On May 25, 2018, in conjunction with the signing of her separation agreement discussed above, the former Nemus CFO, Ms. Elizabeth Berecz's Restricted stock awards amounting to 700,000 shares became immediately vested resulting in the recording of compensation expense of \$184,800 for the three and six months ended June 30, 2018, due to an increase in the fair value of the award immediately before and after the modification date.

Stock-Based Compensation Expense

The Company recognizes stock-based compensation expense using the straight-line method over the requisite service period. For the three months ended June 30, 2019 and 2018, the Company recognized stock-based compensation expense of \$173,084 and \$100,603, respectively (including compensation expense for RSAs discussed above), which was recorded as a general and administrative expense in the Condensed Consolidated Statements of Comprehensive Income (Loss). For the six months ended June 30, 2019 and 2018, the Company recognized stock-based compensation expense of \$344,577 and \$330,212, respectively (including compensation expense for RSAs discussed above), which was recorded as a general and administrative expense in the Condensed Consolidated Statements of Comprehensive Income (Loss). The total amount of unrecognized compensation cost was \$404,304 as of June 30, 2019. This amount will be recognized over a weighted average period of 0.92 years.

7. Significant Contracts - University of Mississippi

UM 5050 Pro-Drug and UM 8930 Analog Agreements

In July 2018, the Company renewed its ocular licenses for UM 5050, related to the pro-drug formulation of tetrahydrocannabinol ("THC"), and UM 8930, related to an analog formulation of cannabidiol ("CBD"). On May 24, 2019, the ocular delivery licenses were replaced by "all fields of use" licenses for both UM 5050 and UM 8930 (the "License Agreements"). Pursuant to these license agreements, UM granted the Company an exclusive, perpetual license, including, with the prior written consent of UM, the right to sublicense, to intellectual property related to UM 5050 and UM 8930 for all fields of use.

The License Agreements contain certain milestone payments, royalty and sublicensing fees payable by the Company, as defined therein. Each License Agreement provides for an annual maintenance fee of \$75,000 payable on the anniversary of the effective date. The upfront payment for UM 5050 is \$100,000 and the upfront payment for UM 8930 is \$200,000. Additionally, there is also a \$200,000 fee due within 30 days upon receipt of the first United States Patent and Trademark Office Notice of Allowance for UM 8930. The milestone payments payable for each license are as follows:

- i) \$100,000 paid within 30 days following the submission of the first Investigational New Drug Application to the Food and Drug Administration or an equivalent application to a regulatory agency anywhere in the world, for a product;
- ii) \$200,000 paid within 30 days following the first submission of an NDA, or an equivalent application to a regulatory agency anywhere in the world, for each product that is administered in a different route of administration from that of the early submitted product(s); and
- iii) \$400,000 paid within 30 days following the approval of an NDA, or an equivalent application to a regulatory agency anywhere in the world, for each product that is administered in a different route of administration from that of the early approved product(s).

The royalty percentage due on net sales under each License Agreement is in the mid-single digits. The Company must also pay to UM a portion of all licensing fees received from any sublicensees, subject to a minimum royalty on net sales, and the Company is required to reimburse patent costs incurred by UM related to the licensed products. The royalty obligations apply by country and by licensed product, and end upon the later of the date that no valid claim of a licensed patent covers a licensed product in a given country, or 10 years after the first commercial sale of such licensed product in such country.

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Each License Agreement continues, unless terminated, until the later of the expiration of the last to expire of the patents or patent applications within the licensed technology or the expiration of our payment obligations under the License Agreement. UM may terminate each License Agreement, by giving written notice of termination, upon the Company's material breach of the License Agreement, including failure to make payments or satisfy covenants, representations or warranties without cure, noncompliance, a bankruptcy event, the Company's dissolution or cessation of operations, the Company's failure to make reasonable efforts to commercialize at least one product or failure to keep at least one product on the market after the first commercial sale for a continuous period of one year, other than for reasons outside the Company's control, or the Company's failure to meet certain pre-established development milestones. The Company may terminate each License Agreement upon 60 days' written notice to UM.

UM 5070 License Agreement

In January 2017, we entered into a license agreement with UM pursuant to which UM granted us an exclusive, perpetual license, including the right to sublicense, to intellectual property related to a platform of cannabinoid-based molecules ("UM 5070"), to research, develop and commercialize products for the treatment of infectious diseases. The license agreement culminates roughly one year of screening and target molecule identification studies especially focused on therapy-resistant infectious organisms like Methicillin-resistant *Staphylococcus aureus* ("MRSA").

We paid UM an upfront license fee under the license agreement. Under the license agreement, we are also responsible for annual maintenance fees that will be credited against royalties in the current fiscal year, contingent milestone payments upon achievement of development and regulatory milestones, and royalties on net sales of licensed products sold for commercial use. The aggregate milestone payments due under the license agreement if all the milestones are achieved is \$700,000 and the royalty percentage due on net sales is in the mid-single digits. We must also pay UM a percentage of all licensing fees we receive from any sublicensees, subject to a minimum royalty on net sales by such sublicensees. Our royalty obligations apply on a country by country and licensed product by licensed product basis, and end upon the later of the date that no valid claim of a licensed patent covers a licensed product in a given country, or ten years after first commercial sale of such licensed product in such country.

The license agreement continues, unless terminated, until the later of the expiration of the last to expire of the patents or patent applications within the licensed technology or expiration of our payment obligations under the license. UM may terminate the license agreement, effective upon giving notice, if: (a) we fail to pay any material amount payable to UM under the license agreement and do not cure such failure within 60 days after UM notifies us of such failure, (b) we materially breach any covenant, representation or warranty in the license agreement and do not cure such breach within 60 days after UM notifies us of such breach, (c) we fail to comply in any material respect with the terms of the license and do not cure such noncompliance within 60 days after UM notifies us of such failure, (d) we are subject to a bankruptcy event, (e) we dissolve or cease operations or (f) if after the first commercial sale of a product during the term of the license agreement, we materially fail to make reasonable efforts to commercialize at least one product or fail to keep at least one product on the market after the first commercial sale for a continuous period of one year, other than for reasons outside our control. We may terminate the license agreement upon 60 days' written notice to UM.

8. Related Party Matters

K2C, Inc.

In June 2014, our subsidiary entered into an independent contractor agreement with K2C, Inc. ("K2C"), which is wholly owned by the Company's former Executive Chairman and Co-Founder, Mr. Cosmas N. Lykos, pursuant to which the Company paid K2C a monthly fee for services performed by Mr. Lykos for the Company. The agreement expired on June 1, 2017 and was automatically renewed for one year pursuant to the terms of the agreement. The monthly fee under the agreement was \$10,000 and increased to \$20,000 effective April 1, 2017.

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In February 2018, the Company entered into a separation and release agreement with K2C, which provided for a lump sum payment of \$180,000 and the immediate vesting of 900,000 shares of restricted common stock granted on January 18, 2018, 325,000 shares of restricted common stock granted on October 20, 2015, and 125,000 options granted on November 21, 2014, in exchange for a release of claims and certain other agreements. During the six months ended June 30, 2018, the Company recognized additional stock-based compensation expense of \$112,270 for these restricted stock and option awards.

For the three and six months ended June 30, 2018, total expense incurred under this agreement was \$-0- and \$220,000 (including the previously discussed lump sum payment), respectively. For the three and six months ended June 30, 2019, no expense was incurred under this agreement. Under the separation agreement, Mr. Lykos was allowed to participate in the Company's health, death and disability insurance plans for six months subsequent to K2C's separation.

Emerald Health Sciences

On February 1, 2018, the Company entered into an Independent Contractor Agreement with Emerald Health Sciences, pursuant to which Emerald Health Sciences agreed to provide such services as are mutually agreed between the Company and Emerald Health Sciences, including reimbursement for reasonable expenses incurred in the performance of the Independent Contractor Agreement. These services can include, but are not limited to, corporate advisory services and technical expertise in the areas of business development, marketing, investor relations, information technology and product development. The Independent Contractor Agreement has an initial term of 10 years and specifies compensation which is agreed upon between the Company's Chief Executive Officer and Emerald Health Sciences' Chairman, CEO and President on a month-to-month basis. The fee due under this agreement is payable on a monthly basis; however, if the Company is unable to make payments due to insufficient funds, then interest on the outstanding balance will accrue at a rate of 12% per annum, calculated semi-annually. Under this agreement, for the three months ended June 30, 2019 and 2018, the Company incurred expenses of \$150,000 in each period. For the six months ended June 30, 2019 and 2018, the Company incurred expenses of \$300,000 and \$250,000, respectively.

On February 6, 2018, the Company entered into a Consulting Agreement with Dr. Avtar Dhillon, the Chairman, Chief Executive Officer and President of Emerald Health Sciences. The services under the Consulting Agreement included corporate finance and strategic business advisory services. The Consulting Agreement had an initial term of one year and was renewable automatically unless terminated by either party. The agreement specified an annual fee of \$60,000, payable semi-monthly in installments, and included reimbursement for reasonable expenses incurred in the performance of the services. Under the agreement, Dr. Avtar Dhillon was also entitled to a discretionary annual bonus, payable 120 days after each fiscal year end, to be determined by the Board upon its annual review. Under this agreement, for the three and six months ended June 30, 2018, the Company incurred \$15,000 and \$30,000, respectively. The Consulting Agreement was canceled on October 5, 2018 in connection with the Company's entry into the Credit Agreement with Emerald Health Sciences (See Note 4), and Dr. Avtar Dhillon was appointed as the Executive Chairman of the Company's Board.

9. Subsequent Events

Contract Manufacturer Change for THCVHS

The Company previously entered into a letter agreement with Albany Molecular Research, Inc. ("AMRI"), dated as of July 31, 2018, for the manufacture of THCVHS. On July 8, 2019, the Company notified AMRI of its intent to terminate the letter agreement, effective on August 7, 2019.

On August 7, 2019, the Company entered into a first amendment to the master development and clinical supply agreement dated as of February 25, 2019 (the "Noramco Agreement"), by and between the Company and Noramco, Inc. ("Noramco") to manufacture THCVHS. CBDVHS was previously being manufactured pursuant to the Noramco Agreement. The Company will pay \$257,800 upfront to add the manufacture of THCVHS to the Noramco Agreement and additional payments will be made upon Noramco shipping of the GMP active pharmaceutical ingredient to the Company. All other material terms of the Noramco Agreement remain the same.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements for the three and six months ended June 30, 2019 and 2018 (unaudited) and the year ended December 31, 2018 together with notes thereto. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including, but not limited, to those set forth under "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q.

Unless otherwise provided in this Quarterly Report, references to "we," "us," "our" and "Emerald Bioscience" in this discussion and analysis refer to Emerald Bioscience, Inc., a Nevada corporation formerly known as Nemus Bioscience, Inc. and Load Guard Logistics, Inc., together with its wholly-owned subsidiary, Nemus, a California corporation.

Overview

We are a biopharmaceutical company targeting the discovery, development, and the commercialization of cannabinoid-based therapeutics, through several license agreements with the University of Mississippi ("UM"). UM holds the only contract to cultivate cannabis for research purposes on behalf of the Federal Government of the United States since 1968, and it has significant expertise in cannabis cultivation and the extraction, separation, process and manufacture of cannabis extracts as well as the chemistry and physiology of cannabinoid molecules. We strive to serve as UM's partner for the development and commercialization of cannabinoid-based therapeutics, and the realization of this partnership will depend on the successful development of these compounds through the regulatory requirements of drug approval agencies, like the FDA in the United States and the EMA in the European Union.

Effective March 25, 2019, we changed the Company's name from Nemus Bioscience, Inc. to Emerald Bioscience, Inc.

Recent Events and Significant Contracts.

Expansion of UM 5050 and UM 8930 Licenses from Ocular Delivery Only to All Fields of Use

On May 24, 2019, we executed two restated and amended license agreements with UM which expanded our use of UM 5050, a pro-drug of tetrahydrocannabinol ("THC"), and UM 8930, an analog of cannabidiol ("CBD"), from ocular delivery only to all fields of use. Pursuant to these license agreements, we have exclusive, perpetual, worldwide licenses related to UM 5050 and UM 8930. Additionally, with the prior written consent of UM, we have the right to sublicense the licensed intellectual property.

The all fields use for tetrahydrocannabinol-valine-hemisuccinate ("THCVHS"), the proprietary prodrug of THC, is expected to allow the Company to explore related uses for the active moiety of the prodrug, namely THC. Independent in vitro and in vivo studies have demonstrated the potential use of THC in a variety of potential indications based on the ability of the cannabinoid to act as an anti-inflammatory, anti-fibrotic, and/or inhibitor of neovascularization. The Company has generated data related to these effects using an ex vivo human tissue model of the eye. The prodrug technology employed in THCVHS is designed to enhance the bioavailability and pharmacokinetic predictability of the active part of the molecule, once introduced into the body through routes of administration currently being considered by the development team. Given the positive data accumulated to date in studies of the nervous system tissue of the eye, the Company will likely explore central nervous system applications for THCVHS and possibly anti-inflammatory uses associated with diseases of auto-immune etiology. The Company expects to develop strategic collaborations to identify and advance these applications.

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The all fields use of cannabinoid-valine-hemisuccinate (“CBDVHS”), the analog of CBD, is expected to permit the Company to expand research and development into organ systems outside of the ocular space. Potential disease targets over time could involve the central nervous system, the gastrointestinal tract, the endocrine/metabolic system, reproductive system diseases, or yet unrecognized opportunities. This bioengineered version of CBD is expected to enlarge the disease target pool by virtue of new routes of administration into the body, thereby enhancing bioavailability. The Company expects to develop strategic collaborations to identify and advance these applications.

NB1111

We continue to advance our lead drug candidate, NB1111, towards the first-in-human studies to be conducted in patients with glaucoma (Phase 1b-2a). In 2019, we achieved a number of milestones related to the research and development of NB1111, including:

- Albany Molecular Research Inc. (“AMRI”) worked toward closing the synthesis validation pathway to manufacture cGMP API of THCVHS with validation of drug product purity. In turn, on April 30, 2019, we entered into an additional agreement with AMRI related to non-GMP synthesis of a demonstration batch of our pro-drug of THC. In August 2019, subsequent to the end of second quarter of 2019, our manufacturing agreement with AMRI for THCVHS that was executed in July 2018 was replaced by the agreement with Noramco discussed below.
- On August 7, 2019, subsequent to the end of second quarter of 2019, the Company entered into a first amendment to the Noramco Agreement to manufacture THCVHS. CBDVHS was previously being manufactured pursuant to the Noramco Agreement. The Company will pay \$257,800 upfront to add the manufacture of THCVHS to the Noramco Agreement and additional payments will be made upon Noramco shipping of the GMP active pharmaceutical ingredient to the Company. All other material terms of the Noramco Agreement remain the same.
- In January 2019, we engaged RRD International, LLC (“RRD”) to provide strategic ophthalmic 505(b)(2) regulatory planning, prepare a Pre-IND meeting briefing book, and schedule and represent us at the Pre-IND meeting with the FDA. In May 2019, we executed a change order to extend our work with RRD as we continue to progress toward our Pre-IND meeting.
- UM completed experiments showing that NB1111 was statistically superior in lowering intraocular pressure (“IOP”) compared to the prostaglandin-based therapy, latanoprost, the current standard-of-care for treating glaucoma. Significance was reached across multiple timepoints during a seven-day course of dosing using a validated rabbit normotensive ocular model and NB1111 exerted pharmacologic activity consistent with twice-daily dosing.
- Glauconix Biosciences completed their pilot study to research the mechanism of action and IOP-lowering ability of THC when administered into an ex vivo model of a 3D-human trabecular meshwork using both healthy and glaucomatous-derived tissues. The Glauconix study validated the mechanism of action of NB1111 in lowering IOP, a defining disease process of hypertensive glaucoma. Additionally, biomarkers associated with inflammation and fibrosis in both normal and tissues affected by glaucoma were significantly decreased, pointing to anti-inflammatory and anti-fibrotic activities that are often associated with the cannabinoid class of molecules in other disease-states. Additionally, data revealed that biomarkers associated with neovascularization, a disease process of new blood vessel formation that can damage the retina in a variety of ocular diseases, was also inhibited by THC, prompting further study for the utility of this drug in diseases of the retina.
- In January 2019, we executed an agreement with Pharmaceuticals International, Inc. (“PII”) to conduct studies to determine options for producing a sterile dosage form which can be dosed in humans in a clinical study. PII will conduct appropriate formulation studies to determine storage and processing options. Pursuant to the terms of the agreement, the Company paid \$72,500 to initiate the project. After the initial evaluation, the Company has agreed to pay additional fees and expenses upon completion of certain milestones.

NB2222

NB2222 is the ocular formulation of our proprietary CBD analog. We have embarked on studies with UM exploring the utility of our drug candidate NB2222 as an eye drop nanoemulsion for the potential treatment and management of several eye diseases, including but not limited to, uveitis, dry eye syndrome, macular degeneration and diabetic retinopathy.

In February 2019, we entered into the Noramco Agreement to provide manufacturing and product development services for the Company's analog formulation of CBD. The Company paid \$146,386 upfront and additional payments will be made upon Noramco shipping of the active pharmaceutical ingredient to the Company.

Additionally, in the second quarter of 2019, UM also completed pre-clinical experiments showing that NB2222 exhibited an ability to penetrate multiple chambers of the eye and reach the optic nerve. These findings support the therapeutic potential to provide ocular neuroprotection of retinal ganglion cells, an important goal in treating diseases which lead to vision loss. The data were published in the peer-reviewed Journal of Ocular Pharmacology and Therapeutics in a paper titled, "Analog Derivatization of Cannabidiol for Improved Ocular Permeation".

NB3111

NB3111 is a proprietary cannabinoid cocktail currently undergoing testing as an anti-infective agent against multiple strains of antibiotic resistant bacteria, particularly methicillin-resistant *Staphylococcus aureus* ("MRSA"). These studies look to examine the utility of cannabinoid-based therapies against a variety of MRSA strains. We continue to plan to present data from these studies at an upcoming peer-reviewed scientific meeting focused on infectious diseases.

Critical Accounting Policy and Estimates.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations section discusses our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments, including those related to accrued expenses, financing operations, and contingencies and litigation. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. The most significant accounting estimates inherent in the preparation of our financial statements include estimates as to the appropriate carrying value of certain assets and liabilities which are not readily apparent from other sources. We consider certain accounting policies related to fair value measurements, convertible instruments, warrants issued in connection with financings, stock-based compensation expense, and earnings per share to be critical accounting policies that require the use of significant judgments and estimates relating to matters that are inherently uncertain and may result in materially different results under different assumptions and conditions.

Management assessed the critical accounting policies as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018 and determined that there were no changes to our critical accounting policies and estimates during the three and six months ended June 30, 2019.

Recently Issued and Adopted Accounting Pronouncements

See Note 2 to the accompanying condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for information on recently issued accounting pronouncements and recently adopted accounting pronouncements. While we expect certain recently adopted accounting pronouncements to impact our estimates in future periods, the impact upon adoption was not significant to our current estimates and operations.

Results of Operations

For the three months ended June 30, 2019 and 2018

Revenues. To date, we have not generated any revenues, and do not expect to generate any revenue from the sale of products in the near future.

Operating expenses. For the three months ended June 30, 2019, our total operating expenses were \$1,770,887 as compared to \$1,080,190 for the three months ended June 30, 2018. The increase in operating expenses was due to the items noted below:

Research and development. Research and development expenses for the three months ended June 30, 2019 were \$688,041, which consisted of the upfront payments for the all fields of use licenses for UM 5050 and UM 8930, contract research and development fees paid to UM, regulatory consulting fees paid to RRD, and fees related contract manufacturing paid to AMRI and Noramco. There were no research and development expenses for the three months ended June 30, 2018.

General and administrative. General and administrative expenses for the three months ended June 30, 2019 were \$1,082,846, which primarily consisted of salaries, stock compensation expense, general legal and patent related fees, consulting fees and professional fees related to the Company's capital raising efforts and regulatory filings. By comparison, general and administrative expenses for the three months ended June 30, 2018 were \$1,080,190, which primarily consisted of the same components. General and administrative expenses remained relatively constant period over period.

Other expense (income). For the three months ended June 30, 2019, the Company had other income of \$17,677,777 related primarily to the decrease in fair value of our derivative liabilities by \$17,971,742 which was driven by the decrease in our stock price. We also realized additional interest expense for the three months ended June 30, 2019 as compared to the three months ended June 30, 2018 due to the amortization of the debt discount and interest payments associated with the outstanding balance under the Credit Agreement which was entered during the fourth quarter of 2018.

For the three months ended June 30, 2018, the Company had other expense of \$1,580,168 which consisted of the change in fair value of derivative liabilities driven by an increase in our stock during that period.

Net income (loss) and comprehensive income (loss). For the three months ended June 30, 2019, we had net income of \$15,905,290 as compared to a net loss of \$2,662,000 for the three months ended June 30, 2018. The change from a net loss to net income was primarily attributable to a net increase in other income which was offset by an increase in our research and development expenses. We expect to incur net losses for the foreseeable future.

For the six months ended June 30, 2019 and 2018

Research and development. Research and development expenses for the six months ended June 30, 2019 were \$1,009,026, which consisted of the upfront payments for the all fields of use licenses for UM 5050 and UM 8930, the annual license maintenance fee for UM 5070, contract research and development fees paid to UM and Glauconix, regulatory consulting fees paid to RRD, and fees related contract manufacturing paid to AMRI, Noramco and ElSohly Laboratories.

Research and development expenses for the six months ended June 30, 2018 were \$25,000 which consisted of the annual license maintenance fee for UM 5070.

For the six months ended June 30, 2019, research and development expenses increased by \$984,026, as compared to the six months ended June 30, 2018. The increase is primarily due to an increase in license fees, contract manufacturing expenses and contract research and development expenses, as the procurement of the Credit Agreement has allowed us to continue to focus on ramping up our research and development efforts.

General and administrative. General and administrative expenses for the six months ended June 30, 2019 were \$2,276,928, which primarily consisted of salaries, stock compensation expense, general legal and patent related fees, consulting fees and professional fees related to the Company's capital raising efforts and regulatory filings. By comparison, general and administrative expenses for the six months ended June 30, 2018 were \$2,306,551, which primarily consisted of the same components. General and administrative expenses remained relatively constant period over period.

Other expense (income). For the six months ended June 30, 2019, the Company had other income of \$4,418,452 related primarily to the decrease in fair value of our derivative liabilities which was driven by the decrease in our stock price. In addition, we initiated drawdowns under the Credit Agreement which required us to bifurcate compound embedded derivatives and record an additional charge for the fair value of such instruments in excess of proceeds. We also realized additional interest expense for the six months ended June 30, 2019 as compared to the six months ended June 30, 2018 due to the amortization of the debt discount and interest payments associated with the outstanding balance under the Credit Agreement which was entered during the fourth quarter of 2018.

For the six months ended June 30, 2018, the Company had other expense of \$8,542,600 which consisted of the following primary components:

- \$602,749 represented a net increase in fair value of our derivative liabilities for the six-month period ended June 30, 2018.
- \$7,174,634 represented a loss from the excess of the fair value of the warrants on the date of issuance over the proceeds received in the Emerald Financing transaction.
- We recognized \$590,392 and \$34,608 from a loss on extinguishment and amortization of the discount, respectively, related to the Convertible debt – related party
- \$137,191 in financing costs related to the Emerald Financing transaction.

Net income (loss) and comprehensive income (loss). For the six months ended June 30, 2019, we had net income of \$1,130,898 as compared to a net loss of \$10,875,793 for the six months ended June 30, 2018. The change to net income from a net loss was primarily attributable to an increase in other income and offset by an increase in research and development expenses. We expect to incur net losses for the foreseeable future.

Liquidity and Capital Resources.

We have incurred operating losses and negative cash flows from operations since our inception and as of June 30, 2019, had an accumulated deficit of \$32,094,209, a stockholders' deficit of \$11,641,442 and a working capital deficit of \$8,025,743. We anticipate that we will continue to incur net losses into the foreseeable future in order to advance and develop several potential drug candidates into preclinical and clinical development activities and support our corporate infrastructure, which includes the costs associated with being a public company. We had cash of \$2,807,826 as of June 30, 2019, as compared to \$1,853,373 as of December 31, 2018. This increase is primarily attributable to the proceeds of \$4,000,000 from the Credit Agreement with Emerald Health Sciences, as discussed below and in the notes to our financial statements. Without additional funding, management believes that we will not have enough funds to meet our obligations beyond one year after the date the Condensed Consolidated Financial Statements are issued. These conditions give rise to substantial doubt as to our ability to continue as a going concern.

On October 5, 2018, we secured a Credit Agreement with Emerald Health Sciences, providing for a credit facility of up to \$20,000,000 to the Company. Under the Credit Agreement, we can draw up to \$20,000,000 in advances from Emerald Health Sciences from time to time, each in a principal amount of at least \$250,000. The advances are subject to approval by our Board, which is controlled by the directors and principal executive officer of Emerald Health Sciences. As of June 30, 2019, we have effected three drawdowns under the Credit Agreement, each in the amount of \$2,000,000, for an aggregate principal amount of \$6,000,000 in advances, and have issued to Emerald Health Sciences warrants to purchase an aggregate of 7,500,000 shares of common stock at an exercise price of \$0.50 per share.

We filed a registration statement on Form S-1 on June 4, 2019, which has not yet been declared effective as of the date of this filing. Subject to market conditions, we expect to commence the sale of securities under the Form S-1 as soon as practicable after the registration statement is declared effective. The specific terms of the offering under the registration statement, if it occurs, will be established at the time of such offering. We cannot assure you that this offering will result in our raising additional capital on terms favorable to us or at all.

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We intend to continue working toward identifying and obtaining new sources of financing. No assurances can be given that we will be successful in obtaining additional financing in the future. Any future financing that we may obtain may cause significant dilution to existing stockholders. Any debt financing or other financing of securities senior to common stock that we can obtain will likely include financial and other covenants that will restrict our flexibility. Any failure to comply with these covenants would have a negative impact on our business, prospects, financial condition, results of operations and cash flows.

If adequate funds are not available, we may be required to delay, scale back or eliminate portions of our operations, cease operations or obtain funds through arrangements with strategic partners or others that may require us to relinquish rights to certain of our assets. Accordingly, the inability to obtain such financing could result in a significant loss of ownership and/or control of our assets and could also adversely affect our ability to fund our continued operations and our expansion efforts.

During the next 12 months, we expect to incur significant research and development expenses with respect to our products. The majority of our research and development activity is focused on development of potential drug candidates and preclinical trials.

We also expect to incur significant legal and accounting costs in connection with being a public company. We expect those fees will be significant and will continue to impact our liquidity. Those fees will be higher as our business volume and activity increases.

We also anticipate that we will need to hire additional employees or independent contractors as the Company prepares to enter clinical studies.

Going Concern

Our independent registered public accounting firm has issued a report on our audited financial statements for the fiscal year ended December 31, 2018 that included an explanatory paragraph referring to our recurring operating losses and expressing substantial doubt in our ability to continue as a going concern. Our condensed consolidated financial statements have been prepared on a going concern basis, which assumes the realization of assets and settlement of liabilities in the normal course of business. Our ability to continue as a going concern is dependent upon our ability to generate profitable operations in the future and/or to obtain the necessary financing to meet our obligations and repay our liabilities arising from normal business operations when they become due. The outcome of these matters cannot be predicted with any certainty at this time and raise substantial doubt that we will be able to continue as a going concern. Our condensed consolidated financial statements do not include any adjustments to the amount and classification of assets and liabilities that may be necessary should we be unable to continue as a going concern.

Off-Balance Sheet Arrangements

There are no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our 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. We maintain controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any control and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

We conducted an evaluation, under the supervision and with the participation of our principal executive and financial officers, of the effectiveness of the design and operation of our disclosure controls and procedures as of June 30, 2019. Based upon their evaluation and subject to the foregoing, the principal executive and financial officers have concluded that, as of the end of the period covered by this report, the disclosure controls and procedures were effective at a reasonable assurance level.

Changes in internal controls. Management determined there were no changes in our internal control over financial reporting that occurred during the fiscal quarter covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceeding

There have been no other material developments with respect to previously reported legal proceedings discussed in our Annual Report on Form 10-K for the year ended December 31, 2018.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. Our Annual Report on Form 10-K for the year ended December 31, 2018 includes a detailed discussion of our risk factors under the heading “Part I, Item 1A-Risk Factors.” There are no changes from the risk factors previously disclosed in our Annual Report on Form 10-K. You should carefully consider the risk factors discussed in our Annual Report on Form 10-K as well as the other information in this report before deciding whether to invest in shares of our common stock. The occurrence of any of the risks discussed in the Annual Report on Form 10-K could harm our business, financial condition, results of operations or growth prospects. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

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

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

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| 10.1* | Restated and Amended License Agreement, dated as of May 24, 2019, by and between the Company and University of Mississippi, School of Pharmacy (1) |
| 10.2* | Restated and Amended License Agreement, dated as of May 24, 2019, by and between the Company and University of Mississippi, School of Pharmacy (1) |
| 10.3* | First Amendment to Master Development and Clinical Supply Agreement, dated as of August 7, 2019, by and between the Company and Noramco, Inc. (2) |
| 31.1 | Certification of Principal Executive Officer, pursuant to Rule 13a-14 and 15d-14 of the Securities Exchange Act of 1934 |
| 31.2 | Certification of Principal Financial Officer, pursuant to Rule 13a-14 and 15d-14 of the Securities Exchange Act of 1934 |
| 32.1+ | Certification of Principal Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 32.2+ | Certification of Principal Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 101.ins | Instance Document |
| 101.sch | XBRL Taxonomy Schema Document |
| 101.cal | XBRL Taxonomy Calculation Linkbase Document |
| 101.def | XBRL Taxonomy Definition Linkbase Document |
| 101.lab | XBRL Taxonomy Label Linkbase Document |
| 101.pre | XBRL Taxonomy Presentation Linkbase Document |

(1) Included as exhibit to our Current Report on Form 8-K filed on May 29, 2019.

(2) Included as exhibit to our Current Report on Form 8-K filed on August 8, 2019.

+ Furnished herewith and not “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

* Certain confidential portions of this Exhibit were omitted by means of marking such portions with brackets ("****") because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed.

SIGNATURES

In accordance with the requirements of the Securities Exchange Act of 1934, the registrant duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**Emerald Bioscience, Inc.,
a Nevada corporation**

August 9, 2019

By: /s/ Brian Murphy
Brian Murphy
Its: Chief Executive Officer
(Principal Executive Officer)

August 9, 2019

By: /s/ Doug Cesario
Doug Cesario
Its: Chief Financial Officer
(Principal Financial and Accounting Officer)

**Certification of Principal Executive Officer,
Required By Rule 13a-14(A) of the Securities Exchange Act of 1934, As Amended,
As Adopted Pursuant To Section 302 of the Sarbanes-Oxley Act of 2002**

I, Brian Murphy, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Emerald Bioscience, Inc. for the quarter ended June 30, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting, which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2019

/s/ Brian Murphy

Brian Murphy

Chief Executive Officer

**Certification of Principal Financial Officer,
Required By Rule 13a-14(A) of the Securities Exchange Act of 1934, As Amended,
As Adopted Pursuant To Section 302 of the Sarbanes-Oxley Act of 2002**

I, Doug Cesario, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Emerald Bioscience, Inc. for the quarter ended June 30, 2019;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2019

/s/ Doug Cesario

Doug Cesario
Chief Financial Officer

**Certification of Principal Executive Officer, pursuant to 18 U.S.C. Section 1350,
as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of Emerald Bioscience, Inc. a Nevada corporation (the “Company”) on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Brian Murphy, Chief Executive Officer of the Company, certifies to the best of his knowledge, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

/s/ Brian Murphy

Brian Murphy

Chief Executive Officer

August 9, 2019

**Certification of Principal Financial Officer, pursuant to 18 U.S.C. Section 1350,
as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report of Emerald Bioscience, Inc. a Nevada corporation (the “Company”) on Form 10-Q for the quarter ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), Doug Cesario, Chief Financial Officer of the Company, certifies to the best of her knowledge, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

/s/ Doug Cesario

Doug Cesario

Chief Financial Officer

August 9, 2019