SECURITIES & EXCHANGE COMMISSION EDGAR FILING

DYADIC INTERNATIONAL INC

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

FORM 10-Q

(Mark One)

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

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

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

For the transition period from _____ to _____

Commission File Number: **000-55264**

DYADIC®

DYADIC INTERNATIONAL, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**45-0486747**
State or Other Jurisdiction of Incorporation or Organization	I.R.S. Employer Identification No.
140 Intracoastal Pointe Drive, Suite 404 Jupiter, Florida	**33477**
Address of Principal Executive Offices	Zip Code

(561) 743-8333

Registrant's Telephone Number, Including Area Code

N/A

Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 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 ý No ❑

Indicate by check mark whether the registrant has submitted electronically, every Interactive Data File required to be submitted 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 such files). Yes ý No ❑

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

Large accelerated filer ❑ Accelerated filer ❑

Non-accelerated filer ý Smaller reporting company ý

Emerging growth company ❑

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 Act). Yes o No ý

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	DYAI	The NASDAQ Stock Market LLC

The number of shares outstanding of each of the registrant's Common Stock as of August 12, 2019 was 27,111,157.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Information (other than historical facts) set forth in this Quarterly Report contains forward-looking statements within the meaning of the Federal securities laws, which involve many risks and uncertainties that could cause our actual results to differ materially from those reflected in the forward-looking statements. Forward-looking statements generally can be identified by use of the words “expect,” “should,” “intend,” “anticipate,” “will,” “project,” “may,” “might,” “potential,” or “continue” and other similar terms or variations of them or similar terminology. Such forward-looking statements are included under Item 2 “Management’s Discussion and Analysis”. Dyadic International, Inc., and its subsidiaries cautions readers that any forward-looking information is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking information. Such statements reflect the current views of our management with respect to our operations, results of operations and future financial performance. Forward-looking statements involve many risks, uncertainties or other factors within and/or beyond Dyadic’s control. These factors include, but are not limited to, (1) general economic, political and market conditions; (2) our ability to generate the required productivity, stability, purity, performance, cost, safety and other data necessary to carry out and implement our biopharmaceutical research and business plans and strategic initiatives; (3) our ability to retain and attract employees, consultants, directors and advisors; (4) our ability to implement and successfully carry out Dyadic’s and third parties’ research and development efforts; (5) our ability to obtain new license and research agreements; (6) our ability to maintain our existing access to, and/or expand access to third party contract research organizations in order to carry out our research projects for ourselves and third parties; (7) competitive pressures and reliance on our key customers and collaborators; (8) the pharmaceutical and biotech industry, governmental regulatory and other agencies’ willingness to adopt, utilize and approve the use of the C1 gene expression platform; (9) speculative nature and illiquidity of equity securities received as consideration from sub-licenses; and (10) other factors discussed in Dyadic’s publicly available filings, including information set forth under the caption “Risk Factors” in our Form 10-K filed with the Securities and Exchange Commission (“SEC”) on March 27, 2019 and our Form 10-Q filed with the SEC on May 9, 2019. We caution you that the foregoing list of important factors is not exclusive. The forward-looking statements are based on our beliefs, assumptions and expectations of future performance, considering the information currently available to us. These statements are only predictions based upon our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. Moreover, we operate in a highly regulated, competitive and rapidly changing environment. Our competitors have far greater resources, infrastructure and market presence than we do which makes it difficult for us to enter certain markets, and/or to gain or maintain customers. New risks emerge from time to time and 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. Before investing in our common stock, investors should carefully read the information set forth under the caption “Risk Factors” and elsewhere on our Form 10-K filed with the SEC on March 27, 2019 and our Form 10-Q filed with the SEC on May 9, 2019 which could have a material adverse effect on our business, results of operations and financial condition.

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 and events and circumstances reflected in the forward-looking statements will be achieved or occur. Except as required by law, we undertake no obligation to publicly update any forward-looking statements for any reason after the date of this Quarterly Report to conform these statements to actual results or to changes in our expectations.

We qualify all our forward-looking statements by these cautionary statements. In addition, with respect to all our forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

PART I

Item 1. Financial Statements

DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	June 30, 2019	December 31, 2018
	(Unaudited)	(Audited)
Assets		
Current assets:		
Cash and cash equivalents	$ 4,781,520	$ 2,386,314
Short-term investment securities	32,104,149	38,816,441
Interest receivable	399,242	294,240
Accounts receivable	504,510	318,744
Income tax receivable	—	506,866
Prepaid research and development	98,924	253,446
Prepaid expenses and other current assets	112,136	172,001
Total current assets	38,000,481	42,748,052
Non-current assets:		
Long-term investment securities	1,516,670	—
Long-term income tax receivable	500,616	500,616
Other assets	51,575	52,139
Total assets	$ 40,069,342	$ 43,300,807
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 963,264	$ 309,060
Accrued expenses	396,041	399,576
Deferred research and development obligations	90,572	141,002
Total current liabilities	1,449,877	849,638
Commitments and contingencies (See Note 4)		
Stockholders' equity:		
Preferred stock, $.0001 par value:		
Authorized shares - 5,000,000; none issued and outstanding	—	—
Common stock, $.001 par value:		
Authorized shares - 100,000,000; issued shares - 39,364,659 and 38,966,988, outstanding shares - 27,111,157 and 26,713,486 as of June 30, 2019 and December 31, 2018	39,365	38,967
Additional paid-in capital	95,424,178	94,385,230
Treasury stock, shares held at cost - 12,253,502	(18,929,915)	(18,929,915)
Accumulated deficit	(37,914,163)	(33,043,113)
Total stockholders' equity	38,619,465	42,451,169
Total liabilities and stockholders' equity	$ 40,069,342	$ 43,300,807

The accompanying notes are an integral part of these unaudited consolidated financial statements.

DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Revenues:				
Research and development revenue	$ 390,874	$ 161,286	$ 793,401	$ 345,616
Costs and expenses:				
Costs of research and development revenue	322,228	129,116	650,131	275,925
Research and development	818,240	601,199	1,510,610	1,178,083
Research and development - related party	336,310	340,849	725,783	733,398
General and administrative	1,870,678	921,542	3,298,745	2,214,539
Foreign currency exchange loss (gain), net	4,932	(15,198)	10,966	(10,358)
Total costs and expenses	3,352,388	1,977,508	6,196,235	4,391,587
Loss from operations	(2,961,514)	(1,816,222)	(5,402,834)	(4,045,971)
Interest income	265,722	219,585	532,684	406,042
Loss before income taxes	(2,695,792)	(1,596,637)	(4,870,150)	(3,639,929)
Provision for income taxes	—	—	900	—
Net loss	$ (2,695,792)	$ (1,596,637)	$ (4,871,050)	$ (3,639,929)
Basic and diluted net loss per common share	$ (0.10)	$ (0.06)	$ (0.18)	$ (0.13)
Basic and diluted weighted-average common shares outstanding	26,828,754	28,060,811	26,771,439	28,109,756

The accompanying notes are an integral part of these unaudited consolidated financial statements.

DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(Unaudited)

	Common Stock		Treasury Stock		Additional	Accumulated	
	Shares	Amount	Shares	Amount	Paid-in Capital	Deficit	Total
Balance at December 31, 2018	38,966,988	$ 38,967	(12,253,502)	$ (18,929,915)	$ 94,385,230	$ (33,043,113)	$ 42,451,169
Stock-based compensation	—	—	—	—	890,166	—	890,166
Exercise of stock options	397,671	398	—	—	148,782	—	149,180
Net loss	—	—	—	—	—	(4,871,050)	(4,871,050)
Balance at June 30, 2019	39,364,659	$ 39,365	(12,253,502)	$ (18,929,915)	$ 95,424,178	$ (37,914,163)	$ 38,619,465

The accompanying notes are an integral part of these unaudited consolidated financial statements.

DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	Six Months Ended June 30,	
	2019	**2018**
Cash flows from operating activities		
Net loss	$ (4,871,050)	$ (3,639,929)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	890,166	343,021
Amortization of held-to-maturity securities, net	90,785	492,398
Foreign currency exchange loss (gain), net	10,966	(10,358)
Changes in operating assets and liabilities:		
Interest receivable	(105,002)	30,360
Accounts receivable	(189,246)	265,121
Income tax receivable	506,866	—
Prepaid research and development	154,522	448,785
Prepaid expenses and other current assets	59,867	(14,973)
Accounts payable	665,126	(275,745)
Accrued expenses	(3,535)	44,491
Deferred research and development obligation	(50,430)	41,815
Income taxes payable	—	(102,000)
Net cash used in operating activities	**(2,840,965)**	**(2,377,014)**
Cash flows from investing activities		
Purchases of held-to-maturity investment securities	(23,571,163)	(30,320,705)
Proceeds from maturities of investment securities	28,676,000	30,507,000
Net cash provided by investing activities	**5,104,837**	**186,295**
Cash flows from financing activities		
Repurchases of common stock	—	(374,820)
Proceeds from exercise of options	149,180	—
Net cash provided by (used in) financing activities	**149,180**	**(374,820)**
Effect of exchange rate changes on cash	(17,846)	(1,989)
Net increase (decrease) in cash and cash equivalents	**2,395,206**	**(2,567,528)**
Cash and cash equivalents at beginning of period	2,386,314	5,786,348
Cash and cash equivalents at end of period	**$ 4,781,520**	**$ 3,218,820**
Supplemental cash flow information		
Cash received from income tax refund	$ 506,866	$ 102,000

The accompanying notes are an integral part of these unaudited consolidated financial statements.

Note 1: Organization and Summary of Significant Accounting Policies

Description of Business

Dyadic International, Inc. ("Dyadic", "we", "us", "our" or the "Company") is a global biotechnology platform company based in Jupiter, Florida with operations in the United States, a satellite office in the Netherlands and research organizations performing services under contract to Dyadic in Finland and Spain. Over the past two decades, the Company has developed a gene expression platform for producing commercial quantities of industrial enzymes and other proteins, and has previously licensed this technology to third parties, such as Abengoa Bioenergy, BASF, Codexis and others, for use in industrial (non-pharmaceutical) applications. This technology is based on the *Myceliophthora thermophila* fungus, which the Company named C1. The C1 technology is a robust and versatile fungal expression system for the development and production of enzymes and other proteins.

On December 31, 2015, the Company sold its industrial technology business to DuPont Danisco ("DuPont"), the industrial biosciences business of DuPont (NYSE: DD) for $75 million (the "DuPont Transaction"). As part of the DuPont Transaction, Dyadic retained co-exclusive rights to the C1 technology for use in all human and animal pharmaceutical applications, and currently has the exclusive ability to enter into sub-license agreements (subject to the terms of the license and to certain exceptions). DuPont retained certain rights to utilize the C1 technology in pharmaceutical applications, including the development and production of pharmaceutical products, for which it will be required to make royalty payments to Dyadic upon commercialization. In certain circumstances, Dyadic may owe a royalty to either DuPont or certain licensors of DuPont, depending upon whether Dyadic elects to utilize certain patents either owned by DuPont or licensed in by DuPont.

After the DuPont Transaction, the Company has been focused on the biopharmaceutical industry, specifically in further improving and applying the proprietary C1 technology into a safe and efficient gene expression platform to help accelerate the development, lower production costs and improve the performance of biologic vaccines and drugs at flexible commercial scales. We believe that the C1 technology could be beneficial in the development and manufacturing of human and animal vaccines (such as virus-like particles (VLPs) and antigens), monoclonal antibodies (mAbs), Bi-Specific antibodies, Fab antibody fragments, Fc-Fusion proteins, metabolites, and other therapeutic enzymes and proteins.

Effective April 17, 2019, our common stock began trading on the NASDAQ Stock Market LLC's NASDAQ Capital Market, under the symbol "DYAI". Prior to the Company's uplisting to the NASDAQ, the Company's common stock traded on the OTCQX market.

Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements, including the accounts of the Company and its wholly owned subsidiaries, have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and applicable rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Certain information and footnote disclosures normally included in consolidated financial statements have been condensed or omitted pursuant to such rules and regulations. All significant intra-entity transactions and balances have been eliminated in consolidation. The Company has reclassified certain 2018 amounts previously reported to conform to the 2019 consolidated financial statement presentation. As such, the information included in this Quarterly Report on Form 10-Q should be read in conjunction with the audited consolidated financial statements and footnotes as of and for the year ended December 31, 2018, included in our Form 10-K which was filed with the SEC on March 27, 2019.

In the opinion of management, the accompanying unaudited interim consolidated financial statements reflect all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation of all periods presented. The results of the Company's operations for any interim periods are not necessarily indicative of the results of operations for any other interim period or for a full fiscal year.

Since concluding the DuPont Transaction, the Company has conducted business in one operating segment, which is identified by the Company based on how resources are allocated, and operating decisions are made. Management evaluates performance and allocates resources based on the Company as a whole.

Use of Estimates

The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements.

Concentrations

The Company's financial instruments that are potentially subject to concentrations of credit risk consist primarily of cash and cash equivalents, and investment securities. At times, the Company has cash, cash equivalents, and investment securities at financial institutions exceeding the Federal Depository Insurance Company ("FDIC") and the Securities Investor Protection Corporation ("SIPC") insured limit on domestic currency and the Netherlands' FDIC counterpart for foreign currency. The Company only deals with reputable financial institutions and has not experienced any losses in such accounts.

For the three months ended June 30, 2019 and 2018, the Company's revenue was generated from four and two customers, respectively. For the six months ended June 30, 2019 and 2018, the Company's revenue was generated from seven and three customers, respectively. As of June 30, 2019 and December 31, 2018, the Company's accounts receivable was from three and four customers, respectively. The loss of business from one or a combination of the Company's customers could adversely affect its operations.

The Company conducts operations in the Netherlands through its foreign subsidiary and generates a portion of its revenues from customers that are located outside of the United States. For the three and six months ended June 30, 2019, the Company had two customers outside of the United States (i.e. European customers) that accounted for approximately 73.3% or $287,000 and 71.5% or $567,000 of total revenue, respectively. For the three and six months ended June 30, 2018, 100% of the Company's revenue was from the United States.

As of June 30, 2019, the Company had one customer outside of the United States that accounted for approximately 80.0% or $404,000 of accounts receivable. As of December 31, 2018, 100% of the Company's accounts receivable was from the United States.

Cash and Cash Equivalents

We treat highly liquid investments with original maturities of three months or less when purchased as cash equivalents, including money market funds, which are unrestricted for withdrawal or use.

Investment Securities

The Company invests excess cash balances in short-term and long-term investment grade securities. Short-term investment securities mature within 12 months or less, and long-term investment securities mature between 12 and 18 months from the applicable reporting date. Management determines the appropriate classification of its investments at the time of purchase and reevaluates the classifications at each balance sheet date. The Company's investments in debt securities have been classified and accounted for as held-to-maturity. Held-to-maturity securities are those securities that the Company has the ability and intent to hold until maturity. Held-to-maturity securities are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized over the life of the related held-to-maturity security. When a debt security is purchased at a premium, both the face value of the debt and premium amount are reflected as investing outflow. Other-than-temporary impairment charges, if incurred, will be included in other income (expense).

The Company's investments in money market funds have been classified and accounted for as available-for-sale securities and presented as cash equivalents on the consolidated balance sheets. As of June 30, 2019 and December 31, 2018, all of our money market funds were invested in U.S. Government money market funds. The Company did not have any investment securities classified as trading as of June 30, 2019 or December 31, 2018.

Accounts Receivable

Accounts receivable consist of billed receivables currently due from customers and unbilled receivables. Unbilled receivables represent the excess of contract revenue (or amounts reimbursable under contracts) over billings to date. Such amounts

become billable in accordance with the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project.

Outstanding account balances are reviewed individually for collectability. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable. Substantially all of our accounts receivable were current and include unbilled amounts that will be billed and collected over the next twelve months. There was no allowance for doubtful accounts as of June 30, 2019 and December 31, 2018.

Accounts receivable consist of the following:

	June 30, 2019	December 31, 2018
	(Unaudited)	(Audited)
Billed receivable	$ 360,512	$ 193,065
Unbilled receivable	143,998	125,679
	$ 504,510	$ 318,744

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following:

	June 30, 2019	December 31, 2018
	(Unaudited)	(Audited)
Prepaid expenses - various	$ 103,030	$ 91,725
Prepaid insurance	8,214	77,249
Prepaid taxes	892	3,027
	$ 112,136	$ 172,001

Equity Method Investment

The Company follows Accounting Standards Codification ("ASC") Subtopic 323-10, Investments - Equity Methods and Joint Ventures, which requires the accounting for investments where the Company can exercise significant influence, but not control of a joint venture or equity investment. See Note 3 for the Company's investments recorded under the equity method of accounting.

Equity method investments are assessed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable. If the decline in value is considered to be other than temporary, the investment is written down to its estimated fair value, which establishes a new cost basis in the investment.

Accounts Payable

Accounts payable consist of the following:

	June 30, 2019	December 31, 2018
	(Unaudited)	(Audited)
Research and development expenses	$ 753,629	$ 240,064
Legal expenses	82,018	—
Other	127,617	68,996
	$ 963,264	$ 309,060

Accrued Expenses

Accrued expenses consist of the following:

	June 30, 2019	December 31, 2018
	(Unaudited)	(Audited)
Employee wages and benefits	$ 258,616	$ 268,287
Research and development expenses	90,085	49,666
Other	47,340	81,623
	$ 396,041	$ 399,576

Revenue Recognition

The Company has no pharmaceutical products approved for sale at this point, and all of our revenue to date has been research revenue from third party collaborations and government grants. The Company is expected to generate future revenue from license agreements and collaborative arrangements, which may include upfront payments for licenses or options to obtain a license, payment for research and development services and milestone payments, in the form of cash or non-cash considerations (e.g., minority equity interest).

Revenue related to research collaborations and agreements: The Company typically performs research and development services as specified in each respective agreement on a best efforts basis, and recognizes revenue from research funding under collaboration agreements in accordance with the 5-step process outlined in ASC Topic 606 ("Topic 606"): (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We recognize revenue when we satisfy a performance obligation by transferring control of the service to a customer in an amount that reflects the consideration that we expect to receive. Since the performance obligation under our collaboration agreements is generally satisfied over time, we elected to use the input method under Topic 606 to measure the progress toward complete satisfaction of a performance obligation.

Under the input methods, revenue will be recognized on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation (e.g., resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to the satisfaction of that performance obligation. The Company believes that the cost-based input method is the best measure of progress to reflect how the Company transfers its performance obligation to a customer. In applying the cost-based input method of revenue recognition, the Company uses actual costs incurred relative to budgeted costs to fulfill the performance obligation. These costs consist primarily of full-time equivalent effort and third-party contract costs. Revenue will be recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligations.

A cost-based input method of revenue recognition requires management to make estimates of costs to complete the Company's performance obligations. In making such estimates, significant judgment is required to evaluate assumptions related to cost estimates. The cumulative effect of revisions to estimated costs to complete the Company's performance obligations will be recorded in the period in which changes are identified and amounts can be reasonably estimated. A significant change in these assumptions and estimates could have a material impact on the timing and amount of revenue recognized in future periods.

Revenue related to sublicensing agreements: If the sublicense to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenue allocated to the license when technology is transferred to the customer and the customer is able to use and benefit from the license.

Milestone payments: At the inception of each arrangement that includes development, commercialization, and regulatory milestone payments, the Company evaluates whether the achievement of the milestones is considered probable and estimates the amount to be included in the transaction price. If the milestone payment is in exchange for a sublicense and is based on the sublicensee's subsequent sale of product, the Company recognizes milestone payment by applying the accounting guidance for royalties. To date, the Company has not recognized any milestone payment revenue resulting from any of its sublicensing arrangements.

Royalties: With respect to licenses deemed to be the predominant item to which the sales-based royalties relate, including milestone payments based on the level of sales, the Company recognizes revenue at the later of (i) when the related sales occur or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its sublicensing arrangements.

We invoice customers based on our contractual arrangements with each customer, which may not be consistent with the period that revenues are recognized. When there is a timing difference between when we invoice customers and when revenues are recognized, we record either a contract asset (unbilled accounts receivable) or a contract liability (deferred research and development obligations), as appropriate. If upfront fees or considerations related to sublicensing agreement are received prior to the technology transfer, the Company will record the amount received as deferred revenue from licensing agreement.

The Company adopted the following practical expedients and exemptions: We generally expense sales commissions when incurred because the amortization period would be one year or less. We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.

Research and Development Costs

Research and development ("R&D") costs are expensed as incurred. R&D costs are related to the Company's internally funded pharmaceutical programs and other governmental and commercial projects.

Research and development costs consist of personnel-related costs, facilities, research-related overhead, services from independent contract research organizations, and other external costs. Research and development costs, including related party, during the three and six months ended June 30, 2019 and 2018 were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Outside contracted services	$ 658,499	$ 481,335	$ 1,243,986	$ 950,892
Contracted services - related party	336,310	340,849	725,783	733,398
Personnel related costs	122,290	95,558	217,052	190,548

Facilities, overhead and other	37,451	24,306	49,572	36,643
	$ 1,154,550	$ 942,048	$ 2,236,393	$ 1,911,481

Foreign Currency Transaction Gain or Loss

The Company's foreign subsidiary uses the U.S. dollar as its functional currency, and it initially measures the foreign currency denominated assets and liabilities at the transaction date. Monetary assets and liabilities are then re-measured at exchange rates in effect at the end of each period, and property and non-monetary assets and liabilities are converted at historical rates.

Fair Value Measurements

The Company applies fair value accounting for certain financial instruments that are recognized or disclosed at fair value in the financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

- *Level 1* – Quoted prices in active markets for identical assets or liabilities.
- *Level 2* – Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3* – Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

Certain assets and liabilities on the balance sheets are measured at carrying values, which approximate fair values due to the short-term nature of these balances. Such items include cash and cash equivalents, accounts receivable, accounts payable, prepaid expenses, and accrued expenses. Investments in debt securities are recorded at amortized cost, and their estimated fair value amounts are provided by the third-party broker service for disclosure purposes.

The Company utilized various methods, including income, cost and market approaches to determine the fair value of its investments in equity interest, which may fall into Level 3 of the fair value hierarchy because of the significant unobservable inputs utilized in these valuation approaches. These inputs can be readily observable, market corroborated, or generally unobservable inputs. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Our key inputs included, but were not limited to, significant management judgments and estimates, including projections of the timing and amount of the project's cash flows, determination of a discount rate for the income approach, market multipliers, probability weighting of potential outcomes of legal and regulatory proceedings, and weighting of the valuations produced by the income, cost and market approaches.

Income Taxes

The Tax Cuts and Jobs Act ("TCJA") was enacted on December 22, 2017 and became effective January 1, 2018. The TCJA contains several key provisions, including a reduction in the U.S. Federal corporate income tax rate from 35% to 21% and a change to the corporate alternative minimum tax ("AMT"). The TCJA's reduction in the U.S. statutory tax rate had no additional impact on the consolidated financial statement for the year ended December 31, 2018.

The TCJA eliminated the corporate AMT and permits existing AMT credit carryforwards to be used to reduce the regular tax obligation in 2018, 2019, and 2020. Any AMT credit carryforwards that do not reduce regular taxes are eligible for a 50% refund in 2018 through 2020, and a 100% refund in 2021. Accordingly, we reclassified the balance of the AMT credit from the deferred tax asset to an income tax receivable in 2018. The corresponding balance in the valuation allowance has been reversed into income tax benefit in the amount of $1,001,233. As of June 2019, we have received 50% or $0.5 million refund for tax year 2018 and expect to receive the remaining 50% for tax years 2019 through 2021.

For the six months ended June 30, 2019 , the Company recorded a provision for income taxes of $900. There were no unrecognized tax benefits as of June 30, 2019 and December 31, 2018.

Deferred tax assets as of June 30, 2019 and December 31, 2018 were approximately $5.7 million and $4.6 million, respectively. Due to the Company's history of operating losses and the uncertainty regarding our ability to generate taxable income in the future, the Company has established a 100% valuation allowance against deferred tax assets as of June 30, 2019 and December 31, 2018.

On June 20, 2019, the Company received a letter from the United States Internal Revenue Service (the "IRS") informing the Company that its 2016 federal tax return was selected for examination. A meeting with the IRS is scheduled in late August 2019. The Company has not been informed of any issues or assessment.

Stock-Based Compensation

We recognize all share-based payments to employees and our board of directors ("Board of Directors"), as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations based on the grant date fair values of such payments. Stock-based compensation expense recognized each period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss available to common shareholders by the weighted average number of common stock outstanding during the reporting period. Diluted net loss per share adjusts the weighted average number of common stock outstanding for the potential dilution that could occur if common stock equivalents, such as stock options were exercised or converted into common stock, calculated by applying the treasury stock method.

For each of the three and six months ended June 30, 2019 and 2018, the effect of the potential exercise of options to purchase 4,108,390 and 3,441,890 shares of common stock, respectively, were excluded from the computation of diluted net loss per share as their effect would have been anti-dilutive.

Recent Accounting Pronouncements Not Adopted as of June 30, 2019

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which modifies the measurement of expected credit losses of certain financial instruments. ASU 2016-13 will be effective for the Company beginning in the first quarter of 2020. The Company is currently evaluating the impact, if any, of this newly issued guidance.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820) which modifies the disclosure requirements on fair value measurements. The effective date for the standard is fiscal years beginning after December 15, 2019, which for the Company is January 1, 2020. Early adoption is permitted. The new disclosure requirements for changes in unrealized gains and losses in other comprehensive income for recurring Level 3 measurements,

the range and weighted average of significant unobservable inputs and the amended requirements for the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively. The Company does not expect ASU 2018-13 to have a material impact on our consolidated financial statements.

Other pronouncements issued by the FASB or other authoritative accounting standards group with future effective dates are either not applicable or not significant to our consolidated financial statements.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). Under the new guidance, lessees will be required to recognize the assets and liabilities that arise from operating leases. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. Companies are required to recognize and measure leases using a modified retrospective approach at either the beginning of the earliest comparative period presented or the beginning of the reporting period in which the entity first applies the new standard. ASU 2016-02 was effective for the Company beginning in the first quarter of 2019. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures, as the Company's leases are one year or less and not required to recognize lease assets or liabilities under the new guidance.

In March 2017, the FASB issued ASU 2017-08, Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization of Purchased Callable Debt Securities. The amendments in this ASU shorten the amortization period for certain callable debt securities held at a premium. The amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. The Company adopted the standard on January 1, 2019. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In February 2018, the FASB issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. The new guidance allows a reclassification from accumulated other comprehensive income to retained earnings for any stranded tax effects resulting from TCJA that was enacted on December 22, 2017. The new guidance will be effective for the Company beginning in the first quarter of 2019. The Company adopted the standard on January 1, 2019. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In June 2018, the FASB issued ASU 2018-07, Compensation - Stock Compensation (Topic 718): Improvements to Non-employee Share-based Payment Accounting. The standard expands the scope of Topic 718 to include share-based payments issued to non-employees for goods or services, simplifying the accounting for share-based payments to non-employees by aligning it with the accounting for share-based payments to employees, with certain exceptions. The standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. The Company adopted the standard on January 1, 2019. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

Note 2: Cash, Cash Equivalent, and Investments

The Company's investments in debt securities are classified as held-to-maturity and are recorded at amortized cost, and its investments in money market funds are classified as cash equivalents. The following table shows the Company's cash, available-for-sale securities, and short-term and long-term investment securities by major security type as of June 30, 2019 and December 31, 2018:

	June 30, 2019 (Unaudited)				
	Level (1)	Fair Value	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents					
Cash		$ 767,894	$ —	$ —	$ 767,894
Money Market Funds	1	4,013,626			4,013,626
Subtotal		4,781,520	—	—	4,781,520
Short-Term Investment Securities (2)					
Corporate Bonds (4)	2	32,119,864	20,490	(4,775)	32,104,149
Long-Term Investment Securities (3)					
Corporate Bonds (4)	2	1,522,290	5,621	—	1,516,669
Total		$ 38,423,674	$ 26,111	$ (4,775)	$ 38,402,338

	December 31, 2018 (Audited)				
	Level (1)	Fair Value	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Adjusted Cost
Cash and Cash Equivalents					
Cash		$ 1,048,272	$ —	$ —	$ 1,048,272
Money Market Funds	1	1,338,042			1,338,042
Subtotal		2,386,314	—	—	2,386,314
Short-Term Investment Securities (2)					
Corporate Bonds (4)	2	38,731,120	—	(85,321)	38,816,441
Total		$ 41,117,434	$ —	$ (85,321)	$ 41,202,755

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Notes:

(1) Definition of the three-level fair value hierarchy:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 - Other inputs that are directly or indirectly observable in the markets
- Level 3 - Inputs that are generally unobservable

(2) Short-term investment securities will mature within 12 months or less, from the applicable reporting date.

(3) Long-term investment securities will mature between 12 and 18 months, from the applicable reporting date.

(4) The premium paid to purchase held-to-maturity investment securities was $23,308 and $26,014 for the three months ended June 30, 2019 and 2018, respectively. The premium paid to purchase held-to-maturity investment securities was $104,163 and $313,705 for the six months ended June 30, 2019 and 2018, respectively. The premium paid to purchase held-to-maturity investment securities was $378,681 for the year ended December 31, 2018.

The Company considers the declines in market value of its investment portfolio to be temporary in nature. The Company's investment policy requires investment securities to be investment grade and held to maturity with the primary objective to maintain a high degree of liquidity while maximizing yield. When evaluating an investment for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, changes in market interest rates, and whether it is more likely than not the Company will be required to sell the investment before recovery of the investment's cost basis. As of June 30, 2019, the Company does not consider any of its investments to be other-than-temporarily impaired.

Note 3: Research Collaboration and Sub-licensing Agreements

BDI Agreements

On June 30, 2017, the Company entered into a strategic Research Services Agreement (the "RSA") with Biotechnology Developments for Industry in Pharmaceuticals, S.L.U. ("BDI Pharma"), and a Service Framework Agreement (the "SFA", and together with the RSA, the "R&D Agreements"), with VLP The Vaccines Company, S.L.U. ("VLPbio"), both of which are subsidiaries of Biotechnology Developments for Industry, S.L., a Spanish biotechnology company ("BDI Holdings" and together with BDI Pharma and VLPbio, "BDI").

The R&D Agreements provide a framework under which the parties will engage in a research and development collaboration encompassing several different projects over approximately a two-year period, with a focus on advancing Dyadic's proprietary C1 technology in the development of next generation biological vaccines and drugs. Dyadic expects to leverage the BDI team's previous C1 gene expression and industrial fermentation scale-up and commercialization experience with yeast and filamentous fungi processes to further advance Dyadic's proprietary C1 technology with the potential to commercialize certain biopharmaceutical product(s). All of the data and any products developed from the funded research projects will be owned by Dyadic.

Upon closing of the BDI transaction, the Company paid EUR €1 million (the "RSA Initial Payment") in cash to engage BDI to develop designated C1 based product candidates and further improve the C1 manufacturing process, in consideration of which Dyadic also received a 16.1% equity interest in BDI Holdings and a 3.3% equity interest in VLPbio. BDI is obligated to spend a minimum amount of EUR €936,000 over two years in the conduct of the research and development project under the RSA. If the research and development activities produce a product that is selected for additional development and commercialization, then Dyadic expects to share with BDI a range of between 50% and 75% of the net income from such selected product, depending upon the amount of BDI's aggregate spend in the development of the selected product, with a minimum aggregate spend by BDI of EUR €1 million for a 50% share and EUR €8 million for a 75% share. If BDI does not enter into an agreement with Dyadic for such additional development and commercialization of the selected product, then Dyadic will pay to BDI EUR €1.5 million of the net income from Dyadic's commercialization, if any, of the selected product. In addition, under the SFA, Dyadic agreed to purchase from BDI at least USD $1 million (the "SFA Commitment") in contract research services specified by Dyadic over two years since the closing of the BDI transaction.

The Company has concluded that BDI is not a Variable Interest Entity ("VIE"), because BDI has sufficient equity to finance its activities without additional subordinated financial support and its at-risk equity holders have the characteristics of a controlling financial interest. Additionally, Dyadic is not the primary beneficiary of BDI as Dyadic does not have the power to control or direct the activities of BDI or its operations. As a result, the Company does not consolidate its investments in BDI, and the financial results of BDI are not included in the Company's consolidated financial results.

The Company performed a valuation analysis of the components of the transaction and allocated the consideration based on the relative fair value of each component. As the fair value of BDI equity interest was considered immaterial, the RSA Initial Payment of approximately USD $1.1 million (EUR €1 million) was accounted for as a prepaid research and development collaboration payment on our consolidated balance sheet, and both the collaboration payment under the RSA and the remaining SFA Commitment of USD $1 million paid by Dyadic will be expensed as the related research services are performed by BDI. As of June 30, 2019, BDI has completed its services under the RSA, and the entire amount of the RSA Initial Payment has been expensed. Under the SFA, there were four research projects completed and three research projects in progress, and we do not have any outstanding commitment under the SFA as of June 30, 2019.

As of June 30, 2019 and December 31, 2018, the prepaid research and development collaboration related to BDI recorded on our consolidated balance sheets were approximately $0.1 million and $0.3 million, respectively. For each of the three months ended June 30, 2019 and 2018, research and development expenses related to BDI were recorded as research and development - related party in our consolidated statements of operations in the amount of approximately $0.3 million. For each of the six months ended June 30, 2019 and 2018, research and development expenses related to BDI were recorded as research and development - related party in our consolidated statements of operations in the amount of approximately $0.7 million.

Novovet and Luina Bio Sub-License Agreement

On April 26, 2019, the Company entered into a sub-license agreement (the "Luina Bio Sub-License Agreement") with Luina Bio Pty Ltd. ("Lunia Bio") and Novovet Pty Ltd ("Novovet"). Under the terms of the Luina Bio Sub-License Agreement, the Company has granted to Novovet, subject to the terms of the license agreement entered into between the Company and Danisco US, Inc. on December 31, 2015, a worldwide sub-license to certain patent rights and know-how related to Dyadic's proprietary C1 gene expression platform for the exclusive and sole purpose of commercializing certain targeted antigen and biological products for the prevention and treatment of various ailments for companion animals.

In consideration of the license granted pursuant to the Luina Bio Sub-License Agreement, Dyadic received a 20% equity interest in Novovet ("Novovet Up-Front Consideration") in accordance with the terms of Novovet's Shareholder Agreement ("Shareholders Agreement"), and will receive a percentage of royalties on future net sales and non-sales revenue, if any, which incorporates Dyadic's proprietary C1 gene expression platform.

The Company evaluated the nature of its equity interest investment in Novovet and determined that Novovet is a Variable Interest Entity ("VIE"), because Novovet does not have sufficient equity to finance its activities without additional financial support from third party investors or lenders. The Company is not the primary beneficiary of Novovet, as Dyadic does not have the power to control or direct the activities of Novovet that most significantly impact the VIE. As a result, the Company will not consolidate its investment in Novovet, but account for under the equity method investment, given that it has the ability to exercise significant influence, but not control, over Novovet.

As of June 30, 2019, the technology transfer of the Company's C1 platform has not been completed and Novovet has not raised sufficient capital to support its required research and drug development activities. Therefore, the Novovet Up-Front Consideration received under the Luina Bio Sub-License Agreement, in the form of a 20% equity interest in Novovet, does not yet meet the revenue recognition criteria under ASC 606. The Company will account for its investment in Novovet and the related income under the equity method of accounting, once the transfer of its C1 technology is completed and Novovet receives adequate financing required to commence its research and development activities.

The Shareholder Agreement provides that, for as long as the Company has a respective proportion of Novovet equal to or more than 20% it may designate one individual to serve on the Board of Directors of Novovet. The Dyadic appointee is Mark Emalfarb, Dyadic's CEO. Pursuant to the terms of the Shareholders Agreement, the Company agreed, subject to certain exceptions, not to sell, transfer, assign, convey or otherwise dispose of its interests in Novovet. In addition, the Company is entitled to or subject to, as applicable, anti-dilution rights, tag along rights and drag along rights, each as described in the Shareholders Agreement.

Alphazyme Sub-License Agreement

On May 5, 2019, the Company entered into a sub-license agreement (the "Alphazyme Sub-License Agreement") with Alphazyme, LLC ("Alphazyme"). Under the terms of the Alphazyme Sub-License Agreement, the Company has granted to Alphazyme, subject to the terms of the license agreement entered into between the Company and Danisco US, Inc. on December 31, 2015, a sub-license to certain patent rights and know-how related to Dyadic's proprietary C1 gene expression platform for the purpose of commercializing certain pharmaceutical products that are used as reagents to catalyze a chemical reaction to detect, measure, or be used as a process intermediate to produce a nucleic acid as a therapeutic or diagnostic agent.

In consideration of the license granted pursuant to the Alphazyme Sub-License Agreement, Dyadic will receive a 7.5% ownership interest in Alphazyme ("Alphazyme Up-Front Consideration") upon the successful transfer of C1 technology, additional milestone payments and a percentage of royalties on net sales, if any, which incorporate Dyadic's proprietary C1 gene expression platform. The Alphazyme Sub-License Agreement has an initial exclusivity period of 18 months ("Exclusivity Period") beginning on the date the technology transfer has been completed. Following the Exclusivity Period, the sub-license will be nonexclusive. At any time prior to the expiration of the Exclusivity Period, Alphazyme has the option to extend the Exclusivity Period for an additional twelve (12) months in return for an additional 2.5% ownership interest in Alphazyme.

The Company evaluated the nature of its equity interest investment in Alphazyme and determined that Alphazyme is a Variable Interest Entity ("VIE") due to the capital structure of the entity. However, the Company is not the primary beneficiary of Alphazyme, as Dyadic does not have the power to control or direct the activities of Alphazyme that most significantly impact the VIE. As a result, the Company does not consolidate its investments in Alphazyme. The Company will account for its investment in Alphazyme under the equity method, given that it has the ability to exercise significant influence, but not control, over Alphazyme.

As of June 30, 2019, the technology transfer of the C1 platform has not completed and Dyadic has not received the Alphazyme Up-Front Consideration. Therefore, no revenue form the Alphazyme Sub-Licensing Agreement was recorded at June 30, 2019.

Upon receipt of the Alphazyme Up-Front Consideration, Dyadic will become a party to the Alphazyme Limited Liability Company Agreement pursuant to which the Company will agree to certain customary rights, covenants and obligations.

Research and Commercialization Collaboration with Serum

On May 7, 2019, the Company entered into a research and commercialization collaboration with Serum Institute of India Pvt., Ltd ("Serum"). Under the terms of this collaboration, Serum anticipates applying Dyadic's C1 technology to express up to

twelve (12) antibodies and vaccines and will undertake commercially best efforts to fully develop and commercialize the proteins expressed from Dyadic's C1 technology. Dyadic has agreed to grant Serum the option to obtain an exclusive commercial sub-license for each of the twelve (12) proteins in return for certain research funding, milestone payments and royalties for 15 years from the date of the first commercial sale.

Note 4: Commitments and Contingencies

Leases

Jupiter, Florida He adquarters

The Company's corporate headquarters are located in Jupiter, Florida. The Company occupies approximately 4,900 square feet with a monthly rental rate and common area maintenance charges of approximately $9,700. The lease expires on June 30, 2020, and thereafter, the Company will reconsider the square footage of the leased space to align with the staffing requirements of the future operations of the Company.

The Netherlands Office

The Company maintains a small satellite office in Wageningen, The Netherlands. In 2018, the Company occupied approximately 258 square feet with annual rentals and common area maintenance charges of approximately $4,700. The lease expired on January 31, 2019, and thereafter, the Company entered into a new lease with the same lessor (the "New Lease"). The New Lease has a one-year term and includes a flexible office space with annual rentals of approximately $4,000.

VTT Research Contract Extension

On June 28, 2019, the Company extended its research contract ("Contract") through June 2022 with VTT Technical Research Centre of Finland Ltd. ("VTT"). Under the terms of this Contract, Dyadic will pay VTT a total of EUR €2.52 million over the next three years to continue developing Dyadic's C1 fungal expression system for therapeutic protein production, including C1 host system improvement, glycoengineering, and management of third party target protein projects. VTT is subject to an additional success bonus up to EUR €450,000 based on the technical targets stipulated in the Contract. Dyadic and its sublicensees will also have the right to use synthetic promoters developed by VTT with an access fee. Dyadic retains the right to terminate the Contract with 90 days'notice.

Legal Proceedings

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. The Company does not believe that any of these claims or proceedings against us is likely to have, individually or in the aggregate, a material adverse effect on the financial condition or results of operations.

Note 5: Share-Based Compensation

Description of Equity Plans

The 2011 Equity Incentive Plan (the "2011 Plan") was adopted by the Company's Board of Directors on April 28, 2011 and approved by the Company's stockholders on June 15, 2011. The 2011 Plan serves as the successor to the Company's 2006 Stock Option Plan (the "2006 Plan"). Since the effective date of the 2011 Plan, all equity awards were made from the 2011 Plan, and no additional awards will be granted under the 2006 plan. Under the 2011 Plan, 3,000,000 shares of the Company's common stock have been initially reserved for issuance pursuant to a variety of share-based compensation awards, plus any shares available for issuance under the 2006 Plan or are subject to awards under the 2006 Plan which are forfeited or lapse unexercised and which following the effective date are not issued under the 2006 Plan. In accordance with the provisions of the 2011 Plan, the Board of Directors approved an increase of 1,500,000 shares to the plan on January 1, 2019.

As of June 30, 2019, the Company had 4,108,390 stock options outstanding and an additional 1,547,211 shares of common stock available for grant under the 2011 Plan. As of December 31, 2018, there were 3,552,890 stock options outstanding and 1,136,211 shares of common stock available for grant under the 2011 Plan.

Stock Options

Options are granted to purchase common stock at prices that are equal to the fair value of the common stock on the date the option is granted. Vesting is determined by the Board of Directors at the time of grant. The term of any stock option awards under the Company's 2011 Plan is no more than ten years except for qualified options granted to the CEO (five years) and certain contractors (two years).

The grant-date fair value of each option grant is estimated using the Black-Scholes option pricing model and amortized on a straight-line basis over the requisite service period, which is generally the vesting period, for each separately vesting portion of the award as if the award was, in substance, multiple awards. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs, including the following:

Risk-free interest rate. The risk-free interest rate is based on U.S. Treasury rates with securities approximating the expected lives of options at the date of grant.

Expected dividend yield. The expected dividend yield is zero, as the Company has never paid dividends to common shareholders and does not currently anticipate paying any in the foreseeable future.

Expected stock price volatility. The expected stock price volatility was calculated based on the Company's own volatility after the DuPont Transaction. The Company reviews its volatility assumption on an annual basis and has used the Company's historical volatility since 2016, as the DuPont Transaction resulted in significant changes in the Company's business and capital structure.

Expected life of option. The expected life of option was based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. The Company uses the weighted average vesting period and contractual term of the option as the best estimate of the expected life of a new option, except for the qualified options granted to the CEO (i.e., 5 years) and certain contractors (i.e., 2 years).

Discount for lack of marketability. The Company applied a discount to reflect the lack of marketability due to the holding period restriction of its shares under Rule 144 prior to its April 2019 uplisting to the NASDAQ. The discount for lack of marketability is no longer applicable since the uplisting of the Company's common stock.

The assumptions used in the Black-Scholes option pricing model for stock options granted through the six months ended June 30, 2019 are as follows:

Risk-Free interest rate	1.69% - 2.50%
Expected dividend yield	0%
Expected stock price volatility	28.59% -37.29%
Expected life of options	2 - 6.25 Years
Discount for lack of marketability	0.0%-8.48%

The following table summarizes the stock option activities for the six months ended June 30, 2019 :

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2018	3,552,890	$1.57	5.06	$1,149,461
Granted [1]	1,089,000	2.26		
Exercised [2]	(533,500)	1.59		
Expired	—	—		
Canceled	—	—		
Outstanding at June 30, 2019	4,108,390	$1.75	6.04	$18,532,876
Exercisable at June 30, 2019	2,848,573	$1.65	4.79	$13,139,047

Notes:
(1) Represents the following stock options granted:

- Annual share-based compensation awards on January 2, 2019, including: (a) 600,000 stock options with an exercise price of $1.87 per share granted to executives and key personnel, vesting upon grant, or one year anniversary, or vest annually in equal installments over four years, (b) 300,000 stock options with an exercise price of $1.87 per share granted to the Board of Directors, vesting 25% upon grant and the remaining 75% will vest annually in equal installments over four years, and (c) 24,000 stock options with an exercise price of $1.87 per share granted to employees, vesting annually in equal installments over four years.
- One-time awards granted on (a) January 2, 2019 of 50,000 stock options with an exercise price of $1.87 per share granted to a contractor, vesting upon one year anniversary, (b) March 7, 2019 of 15,000 stock options with an exercise price of $3.00 per share granted to a contractor, vesting upon one year anniversary, (c) June 25, 2019 of 75,000 stock options with an exercise price of $5.83 per share granted to three members of the Board of Directors, vesting upon one year anniversary, and (d) June 28, 2019 of 25,000 stock options with an exercise price of $6.26 per share granted to the Chief Financial Officer, vesting immediately.

(2) Represents the following stock options exercised:

- A total of 533,500 stock options exercised with a weighted average market price of $5.03, including (a) net share exercise of 440,000 stock options resulting in the issuance of 304,171 shares of common stock, and surrender of 135,829 shares, and (b) 93,500 stock options exercised with cash payment.

Compensation Expenses

We recognize all share-based payments to employees and our Board of Directors, as non-cash compensation expense, in research and development expenses or general and administrative expenses in the consolidated statement of operations, and these charges had no impact on the Company's reported cash flows. Stock-based compensation expense is calculated on the grant date fair values of such awards, and recognized each period based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Forfeitures are recorded as they occur.

Total non-cash stock option compensation expense was allocated among the following expense categories:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
General and administrative	$ 555,455	$ 54,896	$ 839,089	$ 304,138
Research and development	25,148	18,529	51,077	38,883
Total	$ 580,603	$ 73,425	$ 890,166	$ 343,021

Note 6: Shareholders' Equity

Issuances of Common Stock

For the six months ended June 30, 2019, there were 397,671 shares of the Company's common stock issued as a result of the exercise of stock options with a weighted average issue price of $1.59 per share. For the six months ended June 30, 2018, no shares were issued.

Changes in Shareholders' Equity

	Six Months Ended June 30, 2019 (Unaudited)				
	Common Stock	Treasury Stock	Additional Paid-In Capital	Accumulated Deficit	Total
January 1, 2019	$ 38,967	$ (18,929,915)	$ 94,385,230	$ (33,043,113)	$ 42,451,169
Stock-based compensation	—	—	309,563	—	309,563
Net loss	—	—	—	(2,175,258)	(2,175,258)
March 31, 2019	38,967	(18,929,915)	94,694,793	(35,218,371)	40,585,474
Stock issued	398	—	148,782	—	149,180
Stock-based compensation	—	—	580,603	—	580,603
Net loss	—	—	—	(2,695,792)	(2,695,792)
June 30, 2019	$ 39,365	$ (18,929,915)	$ 95,424,178	$ (37,914,163)	$ 38,619,465

	Six Months Ended June 30, 2018 (Unaudited)				
	Common Stock	Treasury Stock	Additional Paid-In Capital	Accumulated Deficit	Total
January 1, 2018	$ 38,937	$ (16,625,873)	$ 93,913,557	$ (27,351,357)	$ 49,975,264
Stock repurchased	—	(374,820)	—	—	(374,820)
Stock-based compensation	—	—	269,596	—	269,596
Net loss	—	—	—	(2,043,292)	(2,043,292)
March 31, 2018	38,937	(17,000,693)	94,183,153	(29,394,649)	47,826,748
Stock-based compensation	—	—	73,425	—	73,425
Net loss	—	—	—	(1,596,637)	(1,596,637)
June 30, 2018	$ 38,937	$ (17,000,693)	$ 94,256,578	$ (30,991,286)	$ 46,303,536

Stock Repurchase Programs

On February 16, 2016, the Board of Directors authorized a one-year stock repurchase program, under which the Company was authorized to repurchase up to $15,000,000 of its outstanding common stock (the "2016 Stock Repurchase Program"). The 2016 Stock Repurchase Program ended on February 15, 2017.

On August 16, 2017, the Board of Directors authorized a new one-year stock repurchase program, under which the Company may repurchase up to $5,000,000 of its outstanding common stock (the "2017 Stock Repurchase Program"). On August 6, 2018, the Board of Directors authorized an extension of this stock repurchase program through August 15, 2019.

Under the 2017 Stock Repurchase Program, the Company is authorized to repurchase shares in open-market purchases in accordance with all applicable securities laws and regulations, including Rule 10b-18 of the Securities Exchange Act of 1934, as amended. The extent to which the Company repurchases its shares, and the timing of such repurchases, is dependent upon a variety of factors, including market conditions, regulatory requirements and other corporate considerations, as determined by the Company's management. The repurchase program may be extended, suspended or discontinued at any time. The Company expects to finance the program from its existing cash resources. All repurchased shares are held in treasury.

The following table summarizes the Company's stock repurchase activities:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Amount	Total Number of Treasury Shares Purchased as Part of Publicly Announced Plan	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plan
Privately Negotiated Transactions:					
January 12, 2016 - Abengoa repurchased and retired shares	2,136,752	$ 1.35	$ 2,884,615	—	N/A
January 11, 2017 - Pinnacle Family Office Investments L.P. repurchased shares	2,363,590	1.54	3,639,929	2,363,590	N/A
					$ 15,000,000
2016 Stock Repurchase Program [(1)]:					
January through February 2017	7,863,980	1.58	12,448,283	7,863,980	$ 2,551,717
2017 Stock Repurchase Program:					$ 5,000,000
September through December 2017	381,607	1.41	537,661	381,607	$ 4,462,339
January through August 2018	1,644,325	1.40	2,304,042	1,644,325	$ 2,158,297
Total open market and privately negotiated purchases	14,390,254	$ 1.52	$ 21,814,530	12,253,502	

Notes:
(1) The 2016 Stock Repurchase Program ended on February 15, 2017.

Treasury Stock

As of June 30, 2019 and December 31, 2018, there were 12,253,502 shares of common stock held in treasury, at a cost of approximately $18.9 million, representing the purchase price on the date the shares were surrendered to the Company.

Note 7: Subsequent Events

For purpose of disclosure in the consolidated financial statements, the Company has evaluated subsequent events through August 13, 2019, the date the consolidated financial statements were available to be issued. Management is not aware of any material events that have occurred subsequent to the balance sheet date that would require adjustment to, or disclosure in the accompanying financial statements.

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

The following discussion and analysis of financial condition and results of operations should be read in conjunction with the financial statements and the notes to those statements appearing in this Quarterly Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks, assumptions and uncertainties. Important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis include, but not limited to those set forth in "Item 1A. Risk Factors" in this Quarterly Report. All forward-looking statements included in this Quarterly Report are based on information available to us as of the time we file this Quarterly Report and, except as required by law, we undertake no obligation to update publicly or revise any forward-looking statements.

Overview

Description of Business

Dyadic International, Inc. ("Dyadic", "we", "us", "our", or the "Company") is a global biotechnology platform company based in Jupiter, Florida with operations in the United States, a satellite office in the Netherlands and research organizations performing services under contract to Dyadic in Finland and Spain. Over the past two decades, the Company has developed a gene expression platform for producing commercial quantities of industrial enzymes and other proteins, and has previously licensed this technology to third parties, such as Abengoa Bioenergy, BASF, Codexis and others, for use in industrial (non-pharmaceutical) applications. This technology is based on the *Myceliophthora thermophila* fungus, which the Company named C1. The C1 technology is a robust and versatile fungal expression system for the development and production of enzymes and other proteins.

On December 31, 2015, the Company sold its industrial technology business to DuPont Danisco ("DuPont"), the industrial biosciences business of DuPont (NYSE: DD) for $75.0 million (the "DuPont Transaction"). As part of the DuPont Transaction, Dyadic retained co-exclusive rights to the C1 technology for use in all human and animal pharmaceutical applications, and currently has the exclusive ability to enter into sub-license agreements (subject to the terms of the license and certain exceptions). DuPont retained certain rights to utilize the C1 technology in pharmaceutical applications, including the development and production of pharmaceutical products, for which it will be required to make royalty payments to Dyadic upon commercialization. In certain circumstances, Dyadic may owe a royalty to either DuPont or certain licensors of DuPont, depending upon whether Dyadic elects to utilize certain patents either owned by DuPont or licensed in by DuPont.

After the DuPont Transaction, the Company has been focused on the biopharmaceutical industry, specifically in further improving and applying the proprietary C1 technology into a safe and efficient gene expression platform to help speed up the development, lower production costs and improve the performance of biologic vaccines and drugs at flexible commercial scales. We believe that the C1 technology could be beneficial in the development and manufacturing of human and animal vaccines (such as virus-like particles (VLPs) and antigens), monoclonal antibodies (mAbs), Bi-Specific antibodies, Fab antibody fragments, Fc-Fusion proteins, and other therapeutic enzymes and proteins. The Company is aiming to develop such products as innovative vaccines and drugs, biosimilars and/or biobetters. Additionally, in early 2018, we began to conduct certain funded research activities to further understand if, or how the C1 technology may be applied for use in developing and manufacturing certain metabolites. The initial data from this metabolite project, where the Phase I data milestone was achieved, demonstrated that C1 has the potential to be engineered to produce certain metabolites.

Recent Developments

The Company continues to develop relationships with business and research partners in the biopharmaceutical industry. In the first six months of 2019, the Company entered into new proof of concept research collaborations with two top 25 biopharmaceutical companies to express different types of biologic vaccines and drugs of interest for human and animal health application. In addition, the Company initiated two new internal research projects, including engineering C1 to explore the potential of C1 to express adeno-associated viral (AAV) vectors which are widely used in gene therapy and are in high demand and short supply.

Novovet and Luina Bio Sub-License Agreement

On April 26, 2019, the Company entered into a sub-license agreement (the "Luina Bio Sub-License Agreement") with Luina Bio Pty Ltd. ("Lunia Bio") and Novovet Pty Ltd ("Novovet"). Under the terms of the Luina Bio Sub-License Agreement, the Company has granted to Novovet, subject to the terms of the license agreement entered into between the Company and Danisco US, Inc. on December 31, 2015, a worldwide sub-license to certain patent rights and know-how related to Dyadic's proprietary C1 gene expression platform for the exclusive and sole purpose of commercializing certain targeted antigen and biological products for the prevention and treatment of various ailments for companion animals.

In consideration of the license granted pursuant to the Luina Bio Sub-License Agreement, Dyadic received a 20% equity interest in Novovet ("Novovet Up-Front Consideration") in accordance with the terms of Novovet's Shareholder Agreement ("Shareholders Agreement"), and will receive a percentage of royalties on future net sales and non-sales revenue, if any, which incorporates Dyadic's proprietary C1 gene expression platform.

The Company evaluated the nature of its equity interest investment in Novovet and determined that Novovet is a Variable Interest Entity ("VIE"), because Novovet does not have sufficient equity to finance its activities without additional financial support from third party investors or lenders. The Company is not the primary beneficiary of Novovet, as Dyadic does not have the power to control or direct the activities of Novovet that most significantly impact the VIE. As a result, the Company will not consolidate

its investment in Novovet, but account for under the equity method investment, given that it has the ability to exercise significant influence, but not control, over Novovet.

As of June 30, 2019, the technology transfer of the Company's C1 platform has not been completed and Novovet has not raised sufficient capital to support its required research and drug development activities. Therefore, the Novovet Up-Front Consideration received under the Luina Bio Sub-License Agreement, in the form of a 20% equity interest in Novovet, does not yet meet the revenue recognition criteria under ASC 606. The Company will account for its investment in Novovet and the related income under the equity method of accounting, once the transfer of its C1 technology is completed and Novovet receives adequate financing required to commence its research and development activities.

The Shareholder Agreement provides that, for as long as the Company has a respective proportion of Novovet equal to or more than 20% it may designate one individual to serve on the Board of Directors of Novovet. The Dyadic appointee is Mark Emalfarb, Dyadic's CEO. Pursuant to the terms of the Shareholders Agreement, the Company agreed, subject to certain exceptions, not to sell, transfer, assign, convey or otherwise dispose of its interests in Novovet. In addition, the Company is entitled to or subject to, as applicable, anti-dilution rights, tag along rights and drag along rights, each as described in the Shareholders Agreement.

Alphazyme Sub-License Agreement

On May 5, 2019, the Company entered into a sub-license agreement (the "Alphazyme Sub-License Agreement") with Alphazyme, LLC ("Alphazyme"). Under the terms of the Alphazyme Sub-License Agreement, the Company has granted to Alphazyme, subject to the terms of the license agreement entered into between the Company and Danisco US, Inc. on December 31, 2015, a sub-license to certain patent rights and know-how related to Dyadic's proprietary C1 gene expression platform for the purpose of commercializing certain pharmaceutical products that are used as reagents to catalyze a chemical reaction to detect, measure, or be used as a process intermediate to produce a nucleic acid as a therapeutic or diagnostic agent.

In consideration of the license granted pursuant to the Alphazyme Sub-License Agreement, Dyadic will receive a 7.5% ownership interest in Alphazyme ("Alphazyme Up-Front Consideration") upon the successful transfer of C1 technology, additional milestone payments and a percentage of royalties on net sales, if any, which incorporate Dyadic's proprietary C1 gene expression platform. The Alphazyme Sub-License Agreement has an initial exclusivity period of 18 months ("Exclusivity Period") beginning on the date the technology transfer has been completed. Following the Exclusivity Period, the sub-license will be nonexclusive. At any time prior to the expiration of the Exclusivity Period, Alphazyme has the option to extend the Exclusivity Period for an additional twelve (12) months in return for an additional 2.5% ownership interest in Alphazyme.

The Company evaluated the nature of its equity interest investment in Alphazyme and determined that Alphazyme is a Variable Interest Entity ("VIE") due to the capital structure of the entity. However, the Company is not the primary beneficiary of Alphazyme, as Dyadic does not have the power to control or direct the activities of Alphazyme that most significantly impact the VIE. As a result, the Company does not consolidate its investments in Alphazyme. The Company will account for its investment in Alphazyme under the equity method, given that it has the ability to exercise significant influence, but not control, over Alphazyme.

As of June 30, 2019, the technology transfer of the C1 platform has not completed and Dyadic has not received the Alphazyme Up-Front Consideration. Therefore, no revenue form the Alphazyme Sub-Licensing Agreement was recorded at June 30, 2019.

Upon receipt of the Alphazyme Up-Front Consideration, Dyadic will become a party to the Alphazyme Limited Liability Company Agreement pursuant to which the Company will agree to certain customary rights, covenants and obligations.

Research and Commercialization Collaboration with Serum

On May 7, 2019, the Company entered into a research and commercialization collaboration with Serum Institute of India Pvt., Ltd ("Serum"). Under the terms of this collaboration, Serum anticipates applying Dyadic's C1 technology to express up to twelve (12) antibodies and vaccines and will undertake commercially best efforts to fully develop and commercialize the proteins expressed from Dyadic's C1 technology. Dyadic has agreed to grant Serum the option to obtain an exclusive commercial sub-license for each of the twelve (12) proteins in return for certain research funding, milestone payments and royalties for 15 years from the date of the first commercial sale.

VTT Research Contract Extension

On June 28, 2019, the Company extended its research contract ("Contract") through June 2022 with VTT Technical Research Centre of Finland Ltd. ("VTT"). Under the terms of this Contract, Dyadic will pay VTT a total of EUR €2.52 million

over the next three years to continue developing Dyadic's C1 fungal expression system for therapeutic protein production, including C1 host system improvement, glycoengineering, and management of third party target protein projects. VTT is subject to an additional success bonus up to EUR €450,000 based on the technical targets stipulated in the Contract. Dyadic and its sublicensees will also have the right to use synthetic promoters developed by VTT with an access fee. Dyadic retains the right to terminate the Contract with 90 days' notice.

C1 Platform and Collaboration Update

- Through our collaboration with VTT, the Company has generated data that exceeded initial expectations on several fronts, including the pace of development and level of protein productivity and stability. This was demonstrated recently by the very high expression level reached of a full-length monoclonal antibody (mAb) of 22 grams per liter in seven days.

- With regard to the ZAPI program, we demonstrated further success with fermentation results of the ZAPI antigen against the Schmallenberg virus with a yield of 1,780 mg/l (time point 121h) or 17 times the initially stated expression level. Animal trials with the C1 produced ZAPI antigen are expected to begin this year.

- On August 12, 2019, Dyadic signed a fully funded research collaboration with a top tier pharmaceutical company to express three different types and classes of proteins.

Critical Accounting Policies, Estimates, and Judgments

The preparation of these consolidated financial statements in accordance with GAAP requires management to make estimates and judgments that affect the reported amount of assets and liabilities and related disclosure of contingent assets and liabilities at the date of our consolidated financial statements and the reported amounts of revenues and expenses during the applicable period. Actual results may differ from these estimates under different assumptions or conditions. Such differences could be material to the consolidated financial statements.

We define critical accounting policies as those that are reflective of significant judgments and uncertainties and which may potentially result in materially different results under different assumptions and conditions. In applying these critical accounting policies, our management uses its judgment to determine the appropriate assumptions to be used in making certain estimates. These estimates are subject to an inherent degree of uncertainty. Our critical accounting policies include the following:

Revenue Recognition

The Company has no pharmaceutical products approved for sale at this point, and all of our revenue to date has been research revenue from third party collaborations and government grants. The Company is expected to generate future revenue from license agreements and collaborative arrangements, which may include upfront payments for licenses or options to obtain a license, payment for research and development services and milestone payments, in the form of cash or non-cash considerations (e.g., minority equity interest).

Revenue related to research collaborations and agreements: The Company typically performs research and development services as specified in each respective agreement on a best efforts basis, and recognizes revenue from research funding under collaboration agreements in accordance with the 5-step process outlined in Topic 606: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We recognize revenue when we satisfy a performance obligation by transferring control of the service to a customer in an amount that reflects the consideration that we expect to receive. Since the performance obligation under our collaboration agreements is generally satisfied over time, we elected to use the input method under Topic 606 to measure the progress toward complete satisfaction of a performance obligation.

Under the input methods, revenue will be recognized on the basis of the entity's efforts or inputs to the satisfaction of a performance obligation (e.g., resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to the satisfaction of that performance obligation. The Company believes that the cost-based input method is the best measure of progress to reflect how the Company transfers its performance obligation to a customer. In applying the cost-based input method of revenue recognition, the Company uses actual costs incurred relative to budgeted costs to fulfill the performance obligation. These costs consist primarily of full-time equivalent effort and third-party contract costs. Revenue will be recognized based on actual costs incurred as a percentage of total budgeted costs as the Company completes its performance obligations.

A cost-based input method of revenue recognition requires management to make estimates of costs to complete the Company's performance obligations. In making such estimates, significant judgment is required to evaluate assumptions related

to cost estimates. The cumulative effect of revisions to estimated costs to complete the Company's performance obligations will be recorded in the period in which changes are identified and amounts can be reasonably estimated. A significant change in these assumptions and estimates could have a material impact on the timing and amount of revenue recognized in future periods.

Revenue related to sublicensing agreements: If the sublicense to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenue allocated to the license when technology is transferred to the customer and the customer is able to use and benefit from the license.

Milestone payments: At the inception of each arrangement that includes development, commercialization, and regulatory milestone payments, the Company evaluates whether the achievement of the milestones is considered probable and estimates the amount to be included in the transaction price. If the milestone payment is in exchange for a sublicense and is based on the sublicensee's subsequent sale of product, the Company recognizes milestone payment by applying the accounting guidance for royalties. To date, the Company has not recognized any milestone payment revenue resulting from any of its sublicensing arrangements.

Royalties: With respect to licenses deemed to be the predominant item to which sales-based royalties relate, including milestone payments based on the level of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its sublicensing arrangements.

We invoice customers based on our contractual arrangements with each customer, which may not be consistent with the period that revenues are recognized. When there is a timing difference between when we invoice customers and when revenues are recognized, we record either a contract asset (unbilled accounts receivable) or a contract liability (deferred research and development obligations), as appropriate.

The Company adopted the following practical expedients and exemptions: We generally expense sales commissions when incurred because the amortization period would be one year or less. We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.

Accrued Research and Development Expenses

In order to properly record services that have been rendered but not yet billed to the Company, we review open contracts and purchase orders, communicate with our personnel and we estimate the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly or quarterly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of accrued research and development expenses include amounts owed to contract research organizations, to service providers in connection with commercialization and development activities.

Stock-Based Compensation

We have granted stock options and restricted stock to employees, directors and consultants. The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. The Black-Scholes model considers volatility in the price of our stock, the risk-free interest rate, the estimated life of the option, the closing market price of our stock and the exercise price. For purposes of the calculation, we assumed that no dividends would be paid during the life of the options and restricted stock and applied a discount to reflect the lack of marketability due to the holding period restriction of its shares under Rule 144 prior to the Company April 2019 uplisting to NASDAQ. We also used the weighted-average vesting period and contractual term of the option as the best estimate of the expected life of a new option (except for our CEO which is 5 years). The Company performs a review of assumptions used in the Black-Scholes option-pricing model on an annual basis. During the Company's annual review of its volatility assumption in 2018, the Company determined that it would be appropriate to use the Company's historical volatility since 2016, as the DuPont Transaction resulted in significant changes in the Company's business and capital structure. The change in assumption was effective January 1, 2018 and only impacts new options granted in 2018 and thereafter.

The estimates utilized in the Black-Scholes calculation involve inherent uncertainties and the application of management judgment. These estimates are neither predictive nor indicative of the future performance of our stock. As a result, if other assumptions had been used, our recorded share-based compensation expense could have been materially different from that

reported. In addition, because some of the options and restricted stock issued to employees, consultants and other third-parties vest upon the achievement of certain milestones, the total ultimate expense of share-based compensation is uncertain.

In connection with board member and employee terminations, the Company may modify certain terms to outstanding share-based awards. We have recorded charges related to these modifications based on the estimated fair value of the share-based options immediately prior to and immediately after the modification occurs, with any incremental value being charged to expense. We have used the Black-Scholes pricing model in this valuation process, and this requires management to use various assumptions and estimates. Future modifications to share-based compensation transactions may result in significant expenses being recorded in our consolidated financial statements.

Accounting for Income Taxes

The Company accounts for income taxes under the asset and liability method in accordance with ASC Topic 740 ("Topic 740"), "Income Taxes". Under this method, income tax expense/(benefit) is recognized for: (i) taxes payable or refundable for the current year and (ii) deferred tax consequences of temporary differences resulting from matters that have been recognized in an entity's financial statements or tax returns. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is provided to reduce the deferred tax assets reported if based on the weight of the available positive and negative evidence, it is more likely than not some portion or all the deferred tax assets will not be realized.

In determining taxable income for the Company's consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process requires the Company to make certain estimates of our actual current tax exposure and assessment of temporary differences between the tax and financial statement recognition of revenue and expense. In evaluating the Company's ability to recover its deferred tax assets, the Company must consider all available positive and negative evidence including its past operating results, the existence of cumulative losses in the most recent years and its forecast of future taxable income. Significant management judgment is required in determining our provision for income taxes, deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets.

The Company is required to evaluate the provisions of Topic 740 related to the accounting for uncertainty in income taxes recognized in a company's financial statements. Topic 740 prescribes a comprehensive model for how a company should recognize, present, and disclose uncertain positions that the company has taken or expects to take in its tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. Differences between tax positions taken or expected to be taken in a tax return and the net benefit recognized and measured pursuant to the interpretation are referred to as "unrecognized benefits." A liability should be recognized (or amount of net operating loss carry forward or amount of tax refundable is reduced) for unrecognized tax benefit because it represents a company's potential future obligation to the taxing authority for a tax position that was not recognized because of applying the provision of Topic 740. TCJA was enacted on December 22, 2017 and is effective January 1, 2018. The new legislation includes, among other things a reduction of the U.S. Federal corporate income tax rate from 35% to 21%, and a change to alternative minimum taxes. The TCJA eliminated the corporate Alternative Minimum Tax (AMT) and permits existing AMT credit carryforwards to be used to reduce the regular tax obligation in 2018, 2019, and 2020. Any AMT credit carryforwards that do not reduce regular taxes are eligible for a 50% refund in 2018 through 2020, and a 100% refund in 2021.

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company utilized various methods, including income, cost and market approaches to determine the fair value of its investments in equity interest, which may fall into Level 3 of the fair value hierarchy because of the significant unobservable inputs utilized in these valuation approaches. These inputs can be readily observable, market corroborated, or generally unobservable inputs. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Our key inputs included, but were not limited to, significant management judgments and estimates, including projections of the timing and amount of the project's cash flows, determination of a discount rate for the income approach, market multipliers, probability weighting of potential outcomes of legal and regulatory proceedings, and weighting of the valuations produced by the income, cost and market approaches.

The Company bases its fair value estimates on assumptions it believes to be reasonable, but which are unpredictable and inherently uncertain. Actual future results may differ from those estimates.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Recent Accounting Pronouncements

See Note 1 to the Consolidated Financial Statements for information about recent accounting pronouncements .

Results of Operations

Three and Six Months Ended June 30, 2019 Compared to the Same Periods in 2018

Revenue and Cost of Revenue

The following table summarizes the Company's revenue and cost of research and development revenue for the three and six months ended June 30, 2019 and 2018:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenue	$ 390,874	$ 161,286	$ 793,401	$ 345,616
Cost of research and development revenue	$ 322,228	$ 129,116	$ 650,131	$ 275,925

The increase in revenue and cost of research and development revenue for the three months ended June 30, 2019 reflect four on-going research collaborations compared to two collaborations for the same period a year ago. The increase in revenue and cost of research and development revenue for the six months ended June 30, 2019 reflect seven on-going research collaborations compared to three collaborations for the same period a year ago.

Research and Development Expenses

Research and development costs are expensed as incurred and primarily include salary and benefits of research personnel, third-party contract research organization services and supply costs.

Research and development expenses for the three months ended June 30, 2019 increased to approximately $818,000 compared to $601,000 for the same period a year ago. The increase primarily reflects the costs of additional internal research projects.

Research and development expenses for the six months ended June 30, 2019 increased to approximately $1,511,000 compared to $1,178,000 for the same period a year ago. The increase primarily reflects the costs of additional internal research projects.

Research and development expenses - related party, for the three months ended June 30, 2019 , was approximately $336,000 compared to $341,000 for the same period a year ago. This reflects the research and development costs related to the R&D Agreements with BDI, which started in July 2017.

Research and development expenses - related party, for the six months ended June 30, 2019 , was approximately $726,000 compared to $733,000 for the same period a year ago. This reflects the research and development costs related to the R&D Agreements with BDI, which started in July 2017.

General and Administrative Expenses

General and administrative expenses for the three months ended June 30, 2019 , increased 102.9% to approximately $1,871,000 compared to $922,000 for the same period a year ago. The increase principally includes increases in noncash share-based compensation expenses of $501,000 related to stock options granted in 2019 and options vested upon the April 2019 uplisting to the NASDAQ , SEC registration and uplisting expenses of $176,000, accrued annual bonuses and incentives for employees of $149,000 and business development and investor relations costs of $86,000.

General and administrative expenses for the six months ended June 30, 2019 , increased 48.9% to approximately $3,299,000 compared to $2,215,000 for the same period a year ago. The increase principally includes increases in noncash share-based compensation expenses of $574,000 related to stock options granted in 2019 and options vested upon the April 2019 uplisting to the NASDAQ, SEC registration and uplisting expenses of $273,000, accrued annual bonuses and incentives for employees of $264,000 and business development and investor relations costs of $131,000, offset by reductions in compensation costs associated with Dyadic's former CFO of $183,000.

Interest Income

Interest income for the three months ended June 30, 2019 , increased 20.9% to approximately $266,000 compared to $220,000 for the same period a year ago. The increase reflects higher yield on the Company's investment grade securities, which are classified as held-to-maturity.

Interest income for the six months ended June 30, 2019 , increased 31.3% to approximately $533,000 compared to $406,000 for the same period a year ago. The increase reflects higher yield on the Company's investment grade securities, which are classified as held-to-maturity.

Net Loss

Net loss for the three months ended June 30, 2019 was approximately $2,696,000 compared to $1,597,000 for the same period a year ago.

Net loss for the six months ended June 30, 2019 was approximately $4,871,000 compared to $3,640,000 for the same period a year ago.

Liquidity and Capital Resources

Our primary source of cash has been the cash received from the DuPont Transaction in December 2015, interest income received from investment grade securities, and funding from our research collaboration agreements. On August 16, 2017, the Board of Directors authorized the 2017 Stock Repurchase Program, under which the Company may repurchase up to $5 million of its outstanding common stock. On August 6, 2018, the Board of Directors authorized an extension of the 2017 Stock Repurchase Program through August 15, 2019. The Company financed the 2017 Stock Repurchase Program from its existing cash on hand. Between January 2016 and August 2018, the Company repurchased a total of 14,390,254 shares of its common stock at a weighted average price of $1.52 for an aggregate purchase price of $21,814,530. In June 2019, the Company's liquidity was further improved with the receipt of approximately $0.5 million tax refund resulting from the elimination of corporate Alternative Minimum Tax (AMT) under the TCJA. An additional $0.5 million AMT tax refund is expected over the next three years through 2021.

Our ability to achieve profitability depends on a number of factors, including our scientific results and our ability to continue to obtain funded research and development collaborations from industry and government programs, as well as sub-license agreements. We may continue to incur substantial operating losses even if we begin to generate revenues from research and development and licensing. Our primary future cash needs are expected to be for general operating activities, including additional costs and expenses as an SEC reporting and NASDAQ listed company, and our business development and research expenses. We believe that our existing cash position and investments in investment grade securities will be adequate to meet our operational, business, and other liquidity requirements for the next twelve months.

At June 30, 2019, cash and cash equivalents were approximately $4.8 million compared to $2.4 million at December 31, 2018. The carrying value of investment grade securities, including accrued interest at June 30, 2019 was approximately $34.0 million compared to $39.1 million at December 31, 2018.

Net cash used in operating activities for the six months ended June 30, 2019 of approximately $2.8 million was principally attributable to a net loss of $4.9 million, partially offset by share-based compensation expense of approximately $0.9 million, changes in tax receivable of approximately $0.5 million, changes in other operating assets and liabilities of approximately $0.5 million, and amortization of held-to-maturity securities of approximately $0.1 million.

Net cash used in operating activities for the six months ended June 30, 2018 of approximately $2.4 million was principally attributable to a net loss of $3.6 million, partially offset by changes in operating assets and liabilities of approximately $0.4 million,

share-based compensations expense of approximately $0.3 million and amortization of held-to-maturity securities of approximately $0.5 million.

Net cash provided by investing activities for the six months ended June 30, 2019 was approximately $5.1 million compared to net cash provided by investing activities of $0.2 million for the six months ended June 30, 2018 . Cash flows from investing activities in 2019 and 2018 were primarily related to proceeds from maturities and purchases of investment grade debt securities.

Net cash provided by financing activities for the six months ended June 30, 2019 was proximately $0.1 million compared to net cash used in financing activities of $0.4 million for the six months ended June 30, 2018 . Cash flows from financing activities in 2019 were primarily related to proceeds from exercise of options. Cash flows from financing activities in 2018 were primarily related to repurchases of common stock.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

Item 4. Controls and procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective.

Changes in Internal Controls Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended June 30, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitation on Effectiveness of Controls

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II

Item 1. Legal Proceedings

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. The Company does not believe that any of these claims or proceedings against us is likely to have, individually or in the aggregate, a material adverse effect on the financial condition or results of operations.

Item 1A. Risk Factors

There have otherwise been no changes to our risk factors from those disclosed in our Form 10-K for the 2018 fiscal year filed on March 27, 2019 and our 10-Q for the first fiscal quarter of 2019 filed on May 9, 2019.

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

None.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Nasdaq Uplisting

Effective April 17, 2019, our common stock began trading on the NASDAQ Stock Market LLC's NASDAQ Capital Market, under the symbol "DYAI". Prior to the Company's uplisting to the NASDAQ Capital Market, the Company's common stock traded on the OTCQX market.

Item 6. Exhibits

Exhibits

Following Exhibits are filed as part of this report pursuant to Item 601 of Regulation S-K:

Exhibit No.	Description of Exhibit	Incorporated by Reference			Filed Herewith
		Form	Original No.	Date Filed	
10.1	Sub-License Agreement among Dyadic International (USA), Inc., Luina Bio Pty Ltd. and Novovet Pty Ltd, dated April 26, 2019. Specific items in this exhibit have been redacted, as marked by three asterisks [***]	8-K	10.1	May 2, 2019	
10.2	Shareholders Agreement among Dyadic International (USA), Inc., JCL Biologics Pty Ltd and Novovet Pty Ltd, dated April 26, 2019. Specific items in this exhibit have been redacted, as marked by three asterisks [***]	8-K	10.2	May 2, 2019	
10.3	Non-Exclusive Sublicense Agreement among Dyadic International, Inc., Alphazyme, LLC, dated May 5, 2019. Specific items in this exhibit have been redacted, as marked by three asterisks [***]	8-K	10.1	May 8, 2019	
10.4	Research and Commercialization Collaboration Agreement with Serum Institute of India Pvt.. Ltd., dated May 7, 2019. Specific items in this exhibit have been redacted, as marked by three asterisks [***].	8-K	10.1	May 8, 2019	
10.5	Commission Contract with VTT Technical Research Centre of Finland Ltd., dated June 28, 2019. Specific items in this exhibit have been redacted, as marked by three asterisks [***]	8-K	10.1	July 5, 2019	
31.1	Certification of Principal Executive Officer of Dyadic Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				☑
31.2	Certification of Principal Financial Officer of Dyadic Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				☑
32.1	Certification of Principal Executive Officer of Dyadic 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 of Dyadic Pursuant to18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				☑

Exhibit No.	Description
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

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

DYADIC INTERNATIONAL, INC.

August 13, 2019 By: /s/ Mark A. Emalfarb

Mark A. Emalfarb
President and Chief Executive Officer
(Principal Executive Officer)

August 13, 2019 By: /s/ Ping W. Rawson

Ping W. Rawson
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 31.1

Certification of Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
and Securities and Exchange Commission Release 34-46427

I, Mark A. Emalfarb, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Dyadic International Inc.;

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 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 we have:

5. The registrant's other certifying officer 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 we 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. 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;
    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

6. The registrant's other certifying officer 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

a. 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 13, 2019
By: /s/ Mark A. Emalfarb

Name: Mark A. Emalfarb
Title: Chief Executive Officer

Certification of Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
and Securities and Exchange Commission Release 34-46427

I, Ping W. Rawson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Dyadic International Inc.;

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 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 we 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. 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;
    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 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 13, 2019
By: /s/ Ping W. Rawson

Name: Ping W. Rawson
Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION 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 Dyadic International Inc. (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"), I, Mark A. Emalfarb, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(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 results of operations of the Company.

Date:	August 13, 2019
By:	/s/ Mark A. Emalfarb
Name:	Mark A. Emalfarb
Title:	Chief Executive Officer

Exhibit 32.2

CERTIFICATION 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 Dyadic International Inc. (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"), I, Ping W. Rawson, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(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 results of operations of the Company.

Date:	August 13, 2019
By:	/s/ Ping W. Rawson
Name:	Ping W. Rawson
Title:	Chief Financial Officer