

Dyadic Reports 2021 Year End Results and Recent Company Progress

- *New research, license and collaboration agreement with Janssen for the development and manufacture of therapeutic proteins*
- *Received NIIMBL coronavirus grant of \$690,000 under the White House's American Rescue Plan*
- *New license agreement with Phibro Animal Health to develop and commercialize certain animal health vaccines*
- *Expecting to advance proprietary DYAI-100 COVID-19 vaccine candidate towards first-in-human clinical trial*
- *Executive leadership team enhanced with the appointment of Joseph Hazelton as Chief Business Officer*
- *Manuscripts published in three highly regarded vaccine scientific journals*
- *Peer reviewed manuscript demonstrating safety and persistence of C1-cell produced DYAI-100 vaccine candidate is awaiting publication in "Toxicologic Pathology"*
- *Research and development revenue increased 50.0% to \$2.4 million in 2021*
- *Cash and investment grade securities of \$20.4 million at year-end 2021*

JUPITER, Fla., March 29, 2022 (GLOBE NEWSWIRE) — Dyadic International, Inc. ("Dyadic", "we", "us", "our", or the "Company") (NASDAQ: DYAI), a global biotechnology company focused on further improving, applying and deploying its proprietary C1-cell protein production platform to accelerate development, lower production costs and improve the performance of biologic vaccines and therapeutics today announced its financial results for year end 2021 and highlighted recent Company progress.

Mark Emalfarb, Dyadic's President and Chief Executive Officer, said, "The C1-cell protein production platform has the potential to address the ongoing need to affordably and rapidly produce vast amounts of vaccines in response to emerging infectious disease threats. We are very encouraged by the growing industry interest and broad commercial possibilities of leveraging our C1-cell protein production platform and our other technologies for use in manufacturing a growing number of vaccines, antibodies, therapeutic proteins and other biologic products. Dyadic continues to develop both strategically and operationally, enhancing our business development and scientific capabilities enabling us to focus our 2022 operating plan on human and animal health, while leveraging other biomolecule market opportunities. As such, we believe that Dyadic has the potential to reshape the current landscape of biomanufacturing. In the meantime, we are pivoting from successfully demonstrating the safety of C1-cells in the production of antigens that are safe, effective, and protective in animals to demonstrating positive human safety data for C1-cell produced proteins with the anticipated initiation of the DYAI-100 Phase 1 clinical trial."

Recent Company Progress

Human Health

- **Research, License and Collaboration Agreement with Janssen** – Dyadic entered into a research, license and collaboration agreement with Janssen Biotech, Inc. ("Janssen"), one of the Janssen Pharmaceutical Companies of Johnson & Johnson. The agreement provides for an up-front payment of \$500,000 for non-exclusive rights to utilize the C1-cell protein production platform for a limited number of Janssen's therapeutic protein candidates. This is a fully funded collaboration which has the potential for Dyadic to receive multiple milestone and commercial payments of seven and nine figures, respectively, per protein.
- **NIIMBL Coronavirus Grant** – Dyadic received 1 of 32 project grants awarded by the National Institute for Innovation in Manufacturing Biopharmaceuticals ("NIIMBL") funded through the White House's American Rescue Plan ("ARP"). Under the NIIMBL grant, the Company will receive up to \$690,000 in funding to engineer the Company's proprietary and patented C1-cell thermophilic fungal (*Thermothelomyces heterothallica*) protein production platform to produce two different antibodies, one of which is a COVID-19 antibody.
- **C1 COVID-19 vaccine collaborations**
 - **South Africa, Rubic Consortium** – a collaboration to develop end-to-end solutions for vaccine discovery, development, and manufacture for the African market.
 - Tech transfer of C1-cell protein production platform was completed. Rubic has begun engineering and growing C1-cells to prepare for the development of affordable vaccines and drugs for the African continent.
 - Preparations are ongoing for potential clinical trial application (CTA) submission to South African Health Products Regulatory Authority (SAPHRA) of C1 produced DYAI-100 COVID-19 vaccine candidate.
 - **India, Syngene** – is a global contract development and manufacturing organization (CDMO). The initial collaboration was to explore the development of a COVID-19 vaccine, and for Syngene to further evaluate the potential of developing a differentiated biomanufacturing platform for vaccines, antibodies and other therapeutic proteins based on the C1-cell protein production platform. Collaboration with Syngene continues to progress.
 - **Sorrento Therapeutics** – Due to a disagreement between the parties concerning the timing, and terms and conditions, for the entry into a definitive license agreement, both parties mutually agreed not to proceed.
 - **Epygen** – In 2020, the Company entered into a non-exclusive technology usage agreement with Epygen Biotech of India, who plans to conduct clinical trials in India using Dyadic's C1-cell protein production platform to produce their COVID-19 vaccine. Epygen recently procured the approval for funding from the government of India to move towards vaccine production technology across early-stage Phase

1 and Phase 2 human clinical trials. In order for Epygen to receive the government funding, it must contribute approximately 25% of the total funding from other sources.

- **University of Oslo** – During 2021, Dyadic expanded its influenza vaccine collaboration with the University of Oslo.
 - Mice vaccinated with C1 antigen combined with an adjuvant (AS03) challenged with a lethal dose of the homologous influenza A/H1N1 showed no clinical signs, no body weight loss, and were fully protected.
 - Other mice trials are ongoing and scheduled with C1 produced antigens for influenza and SARS-CoV-2.
- **Toxicology Study** – Dyadic completed a successful toxicology study of its DYAI-100 COVID-19 vaccine candidate. A manuscript of the results showing safety and persistence was peer reviewed and is awaiting publication in the scientific journal “Toxicologic Pathology”.
- **Peer Reviewed Journals** – Manuscripts were published in three (3) peer reviewed scientific journals “Vaccines”, “Analytical and Bioanalytical Chemistry” and “Vaccine” relating to antigens produced from C1-cells showing safety and efficacy in animal models against influenza and SARS-CoV-2.

Animal Health

- **Phibro Animal Health** – Dyadic entered into an exclusive license agreement for a Phibro targeted disease. The agreement follows the successful proof of concept development work, including animal trials previously completed. The Company anticipates that the parties will continue working on developing additional animal vaccine candidates to be produced from Dyadic’s C1-cells.

Other Markets

- Introduction of a novel method to produce metabolites, such as synthetic cannabinoids and precursors utilizing the C1-cell protein production platform. Two patents are pending to potentially expand Dyadic’s portfolio of offerings.
- The Company is exploring new segments and leveraging existing expertise within industrial enzymes to which Dyadic’s proprietary technologies may be applied.

Executive Leadership Team

Dyadic appointed Joseph Hazelton as the Chief Business Officer in November of 2021. Mr. Hazelton was brought on to lead Dyadic’s transition from research and development activities into commercialization endeavors. With over 20 years in the pharmaceutical industry, Mr. Hazelton brings extensive commercial, operational, and leadership experience to expand Dyadic’s business development opportunities for the C1-cell protein production

platform across the company's core verticals of Human Health, Animal Health, and Industrial Enzymes.

Financial Highlights

Cash Position: As of December 31, 2021, cash, cash equivalents, and the carrying value of investment grade securities, including accrued interest were approximately \$20.4 million compared to \$29.2 million at December 31, 2020.

Revenue: Research and development revenue for the year ended December 31, 2021, increased to approximately \$2,404,000 compared to \$1,602,000 for the year ended December 31, 2020. At December 31, 2021, the Company recorded the \$500,000 upfront payment received from the collaboration and license agreement with Janssen as deferred license revenue.

Cost of Revenue: Cost of research and development revenue for the year ended December 31, 2021, increased to approximately \$1,944,000 compared to \$1,425,000 for the year ended December 31, 2020. The increase in revenue and cost of research and development revenue for the year ended December 31, 2021, was due to a number of larger research collaborations conducted in 2021. There was no provision for contract losses for the year ended December 31, 2021.

R&D Expenses: Research and development expenses for the year ended December 31, 2021, increased to approximately \$8,392,000 compared to \$3,868,000 for the year ended December 31, 2020. The increase primarily reflected the engagement of a contract research organization and pharmaceutical quality and regulatory consultants to manage and support pre-clinical and clinical development as well as an increase in cGMP manufacturing costs as the Company moves towards its anticipated Phase 1 clinical trial of DYAI-100 COVID-19 vaccine candidate in the amount of approximately \$5,145,000 offset by a decrease of \$621,000 in other internal research and development costs.

G&A Expenses: General and administrative expenses for the year ended December 31, 2021, increased 10.1% to approximately \$6,698,000 compared to \$6,085,000 for the year ended December 31, 2020. The increase principally reflected increases in legal expenses of \$447,000, insurance premiums and other outside services of \$220,000, payroll and share based compensation related costs of \$40,000, offset by reductions in business development and investor relations costs of \$94,000.

Foreign Currency Exchange: Foreign currency exchange loss for the year ended December 31, 2021, was approximately \$97,000 compared to \$62,000 for the year ended December 31, 2020. The increase reflected the currency fluctuation of the Euro in comparison to the U.S. dollar.

Interest Income: Interest income for the year ended December 31, 2021, decreased to approximately \$52,000 compared to \$447,000 for the year ended December 31, 2020. The decrease was primarily due to a decrease in interest rate and yield on the Company's investment grade securities, which are classified as held-to-maturity.

Other Non-Operating Items: For the year ended December 31, 2021, the Company recorded a gain from the sale of its investment in BDI in the amount of approximately \$1,606,000.

Net Loss: Net loss for the year ended December 31, 2021, was approximately \$13.1 million, or \$(0.47) per share, compared to a net loss of \$9.3 million, or \$(0.34) per share, for the year ended December 31, 2020.

Conference Call Information

Date: Tuesday, March 29, 2022

Time: 5:00 p.m. Eastern Time

Dial-in numbers: Toll Free: 877-407-0784 International: 201-689-8560

Conference ID: 13727862

Webcast Link: <https://themediiframe.com/mediaframe/webcast.html?webcastid=NtlEiElb>

An archive of the webcast will be available within 24 hours after completion of the live event and will be accessible on the Investor Relations section of the Company's website at <http://www.dyadic.com>. To access the replay of the webcast, please follow the webcast link above.

About Dyadic International, Inc.

Dyadic International, Inc. is a global biotechnology company which is developing what it believes will be a potentially significant biopharmaceutical gene expression platform based on the fungus *Thermothelomyces heterothallica* (formerly *Myceliophthora thermophila*), named C1. The C1 microorganism, which enables the development and large-scale manufacture of low-cost proteins, has the potential to be further developed into a safe and efficient expression system that may help speed up the development, lower production costs and improve the performance of biologic vaccines and drugs at flexible commercial scales. Dyadic is using the C1-cell protein production platform and other technologies to conduct research, development and commercial activities for the development and manufacturing of human and animal vaccines and drugs, such as virus like particles (VLPs) and antigens, monoclonal antibodies, Fab antibody fragments, Fc-Fusion proteins, biosimilars and/or biobetters, and other therapeutic proteins. Certain other research activities are ongoing which include the exploration of using C1 to develop and produce certain metabolites and other biologic products. Dyadic pursues research and development collaborations, licensing

arrangements and other commercial opportunities with its partners and collaborators to leverage the value and benefits of these technologies in development and manufacture of biopharmaceuticals. As the aging population grows in developed and undeveloped countries, Dyadic believes the C1-cell protein production platform may help bring biologic vaccines, drugs, and other biologic products to market faster, in greater volumes, at lower cost, and with new properties to drug developers and manufacturers, and improve access and cost to patients and the healthcare system, but most importantly save lives.

Please visit Dyadic's website at <http://www.dyadic.com> for additional information, including details regarding Dyadic's plans for its biopharmaceutical business.

Safe Harbor Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including those regarding Dyadic International's expectations, intentions, strategies, and beliefs pertaining to future events or future financial performance. Actual events or results may differ materially from those in the forward-looking statements because of various important factors, including those described in the Company's most recent filings with the SEC. Dyadic assumes no obligation to update publicly any such forward-looking statements, whether because of new information, future events or otherwise. For a more complete description of the risks that could cause our actual results to differ from our current expectations, please see the section entitled "Risk Factors" in Dyadic's annual reports on Form 10-K and quarterly reports on Form 10-Q filed with the SEC, as such factors may be updated from time to time in Dyadic's periodic filings with the SEC, which are accessible on the SEC's website and at www.dyadic.com.

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DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,	
	2021	2020
Revenues:		
Research and development revenue	\$ 2,403,831	\$ 1,601,921

Costs and expenses:

Costs of research and development revenue	1,944,438	1,424,931
Provision for contract losses	-	187,388
Research and development	8,392,370	3,868,121
General and administrative	6,697,617	6,084,799
Foreign currency exchange loss	96,893	62,345
Total costs and expenses	17,131,318	11,627,584
Loss from operations	(14,727,487)	(10,025,663)
Other income:		
Interest income	51,704	446,999
Gain from the sale of investments in BDI	1,605,532	-
Unrealized gain from investment in Alphazyme	-	284,709
Total other income	1,657,236	731,708
Loss before income taxes	(13,070,251)	(9,293,955)
Provision for income taxes	-	31,318
Net loss	\$ (13,070,251)	\$ (9,325,273)
Basic and diluted net loss per common share	\$ (0.47)	\$ (0.34)
Basic and diluted weighted-average common shares outstanding	27,838,047	27,471,587

See Notes to Consolidated Financial Statements in Part I of Dyadic's Annual Report on Form 10-K filed with Securities and Exchange Commission on March 29, 2022.

DYADIC INTERNATIONAL, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 15,748,480	\$ 20,637,045
Short-term investment securities	4,511,780	8,457,452
Interest receivable	94,375	112,247
Accounts receivable	277,831	294,199
Prepaid expenses and other current assets	375,830	280,555
Total current assets	21,008,296	29,781,498
Non-current assets:		
Investment in Alphazyme	284,709	284,709
Other assets	6,117	6,225
Total assets	\$ 21,299,122	\$ 30,072,432
Liabilities and stockholders' equity		

Current liabilities:

Accounts payable	\$ 1,547,953	\$ 1,013,099
Accrued expenses	709,560	489,756
Deferred research and development obligations	151,147	123,016
Deferred license revenue, current portion	147,059	-
Total current liabilities	2,555,719	1,625,871
Deferred license revenue, net of current portion	352,941	-
Total liabilities	2,908,660	1,625,871

Commitments and contingencies (Note 5)

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 - 40,482,659 and 39,747,659, outstanding shares - 28,229,157 and 27,494,157 as of December 31, 2021 and 2020, respectively	40,483	39,748
Additional paid-in capital	101,026,496	98,013,079
Treasury stock, shares held at cost - 12,253,502	(18,929,915)	(18,929,915)
Accumulated deficit	(63,746,602)	(50,676,351)
Total stockholders' equity	18,390,462	28,446,561
Total liabilities and stockholders' equity	\$ 21,299,122	\$ 30,072,432

See Notes to Consolidated Financial Statements in Part I of Dyadic's Annual Report on Form 10-K filed with Securities and Exchange Commission on March 29, 2022.

