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INITIATION REPORT

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Dyadic (DYAI-NASDAQ) – Buy Rated

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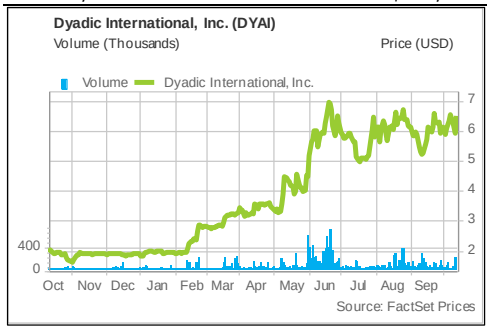
C1: From Blue Jeans to Biotechnology, Efficiency at a Fraction of the Cost

Dyadic is a global biotechnology platform company that has been developing a gene expression platform over the past two decades. Based on the Myceliophthora thermophila fungus (C1), Dyadic's gene expression platform specializes in the production of enzymes and other proteins more efficiently than competing methods.

Current Price	**$6.50**
Price Target	**$14.00**

Estimates	F2019E	F2020E	F2021E
Expenses ($000s)	$ 12,456	$ 12,705	$ 12,959
1Q March	$ 2,844	$ 2,922	$ 2,981
2Q June	$ 3,352	$ 3,049	$ 3,110
3Q September	$ 3,055	$ 3,176	$ 3,240
4Q December	$ 3,205	$ 3,558	$ 3,629
	F2019E	F2020E	F2021E
EPS (diluted)	$ (0.37)	$ (0.14)	$ 0.85
1Q March	$ (0.08)	$ (0.03)	$ 0.20
2Q June	$ (0.10)	$ (0.03)	$ 0.20
3Q September	$ (0.09)	$ (0.03)	$ 0.21
4Q December	$ (0.10)	$ (0.04)	$ 0.24
EBITDA/Share	($0.37)	($0.14)	$0.85
EV/EBITDA (x)	0.0	0.0	0.9
Stock Data			
52-Week Range	$1.55	-	$7.30
Shares Outstanding (mil.)			27.1
Market Capitalization (mil.)			$176
Enterprise Value (mil.)			$139
Debt to Capital			0%
Book Value/Share			$1.76
Price/Book			1.2
Average Three Months Trading Volume (K)			52
Insider Ownership			30.5%
Institutional Ownership			19.5%
Short interest (mil.)			2.0%
Dividend / Yield			$0.00/0.0%



Investment Highlights

A Proven Model from Humble Beginnings: Starting out as a gene expression platform for the production of commercial quantities of industrial enzymes and other proteins, C1 has proven to have the ability to produce greater quantities of enzymes and proteins in large quantities with high priority all while maintaining a relatively low cost. Previously licensed to third parties, such as Abengoa Bioenergy, BASF, Codexis, and others. C1 is now poised to branch out into the biomedical market, aiming to develop products such as innovative vaccines and drugs, biosimilars and biobetters.

Gene Expression. The gene expression platform has already proven its effectiveness in various industrial enzyme production; the Company believes that the C1 cell line is unique in its ability to produce more product at a lower cost. The C1 gene expression platform has great potential to be used in the discovery, development, and manufacturing of biologic medicines and vaccines.

Dyadic: a gamechanger in the Biopharmaceutical field. Dyadic has begun to focus on C1's potential applications within the biopharmaceutical industry. Dyadic's primary focus is the improvement and subsequent application of C1 as a safe and efficient gene expression platform. By focusing on C1, Dyadic hopes to speed up the development, lower production costs, and improve the performance of biologic vaccines and drugs at flexible commercial scales. Dyadic's C1 technology is aimed at improving 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. Dyadic's Exclusive sublicensing rights allow for low risk, high reward royalties with other companies.

C1 is an Enabling Technology for Growth. With the anticipated rapid growth in the biologics market, Dyadic believes that its C1 technology has the potential to be a safe and efficient expression system that can help speed up the development and production of certain biologic vaccines and drugs at flexible commercial scales. In particular, as the aging population grows in developed and undeveloped countries, Dyadic believes C1 can potentially help bring biologic drugs to market faster, in greater volumes and at lower cost to drug developers and manufacturers. This can potentially improve access and reduce costs to patients and the healthcare system, and most importantly, save lives.

Aiming at a target-rich environment. C1's ability to efficiently produce enzymes allows for Dyadic to develop this platform for a wide range of major markets. Dyadic plans on further expanding C1's industrial enzyme production in areas such as animal feed, paper production, and textiles. Dyadic has non-exclusive license agreements for C1 to Codexis, Royal Dutch Shell, Cosan, and Raizen with the goal of utilizing C1 as a platform to develop and manufacture biofuels and chemicals, such as ethanol, from agricultural feedstocks. At the same time, a research and commercialization collaboration agreement with Serum Institute of India for the development and manufacture of up to 12 antibodies and vaccines using Dyadic's C1 gene expression system. This collaboration represents the potential to provide the world with cheaper vaccines. Dyadic has agreed to grant Serum the option to obtain an exclusive commercial sublicense for each of the proteins expressed from its C1 technology. In return for these sublicenses, Dyadic will receive certain research funding, milestone payments, and royalties for 15 years from the date of the first commercial sale. C1 is a natural fit for collaboration with many various pharma, biotech, and biosimilars, as the platform would be adapted to produce whatever enzyme each various company would need. C1 may not fit the needs of every company but, a few partnerships out of the many prospective biotech companies would be massively impactful for Dyadic.

A Broadening range of applications. Sensing that the healthcare industry has a growing demand to reduce prescription drug costs, Dyadic has begun to conduct funded research activities to further improve and understand C1 in an effort to further widen its applications. Dyadic is specifically looking to apply C1 technology for use in the development and manufacturing of certain metabolites. Dyadic in a Phase 1 trial achieved a milestone, demonstrating that C1 has the potential to be engineered to produce these metabolites. In the first quarter of 2019, the Company initiated two new internal research projects, including engineering C1 to express adeno-associated viral vectors (AAV), which has been reported as expensive and in short supply. Dyadic continues to seek research collaboration opportunities and partners to commercialize C1-based products.

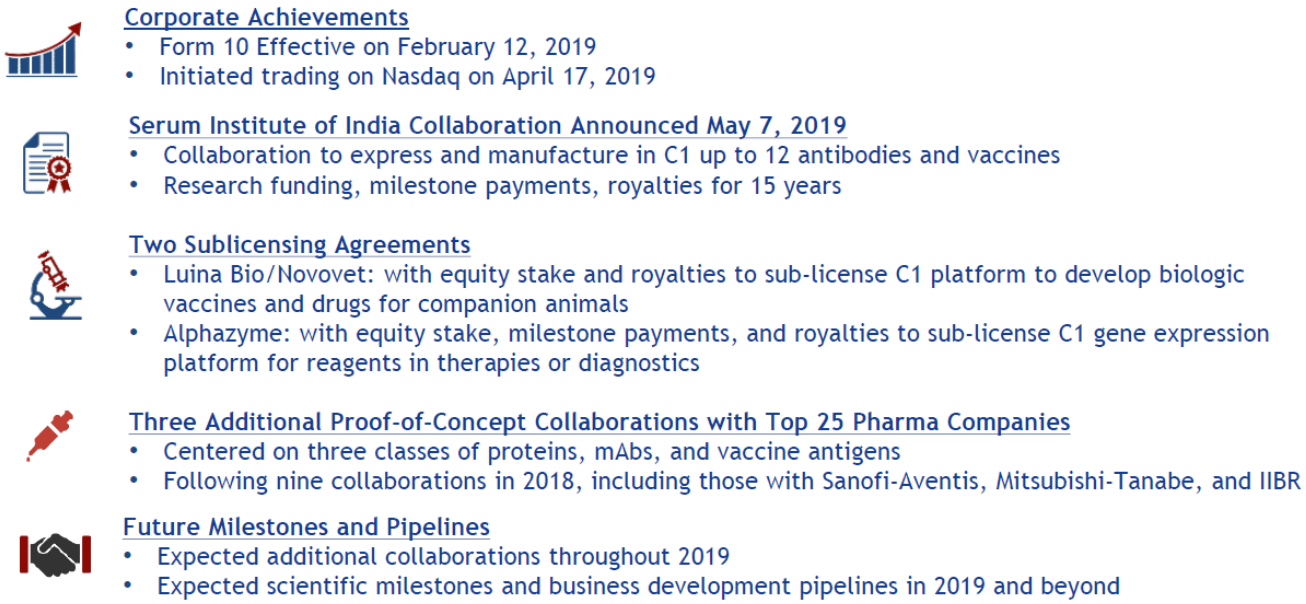
Don't Forget, Dupont. In 2015, Dyadic sold an industrial business segment to Dupont for $75 million. The company has come a long way in the four decades that its founder and CEO, Mark Emalfarb, founded pumice stone process for blue jeans.

Valuation: If we flip coin four times, the reality is we have no idea how many times it will be heads vs. tails. The same thing is true in terms of our ability to predict the next partnership or license deal Dyadic may announce. With that said, if we flip a coin, a hundred times, we can expect about half of the tosses to be heads (or tails). For Dyadic, we evaluate broadly the utility of the C1 platform across three market segments. Pharma and Biotechnology, Biosimilars, Vaccines, and Industrial markets such as Petroleum or Blue Jeans. We assume eight possible deals over the next ten years, in each of the three segments, or 24 possible revenue streams, each with their own milestones and royalties. We know its unlikely that the company will achieve all 24 deals, and we also know its equally unlikely they will have no new deals (given the existing track record). For this modeling exercise we apply a 70% discount (or 30% probability of success) factor, to determine the revenue stream. This discount is in addition to our (r) discount rate that we use in our Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum of the Parts (SOP) models. For this rate we select r = 30% (our highest discount). Our model uses a fully diluted projected out-year (2030) share count. Our three models (FCFF, dEPS, and SOP) are then equal-weighted, averaged and rounded to the nearest whole number to derive our 12 months price target of $14.00

Risks: Partnership risks, Commercialization risks, Financial risks, Clinical and regulatory risks, and Legal and intellectual property risk.

Company Overview. Dyadic is emerging as a global biotechnology platform company. The company's principal operations are based in Jupiter, Florida, but has research arms performing services under contract in Finland and Spain. The company's focus is its proprietary gene expression platform based on the Myceliophthora thermophila fungus, which the Company has named C1. The C1 technology is a robust and versatile fungal expression system for the development and production of enzymes and other proteins. Originally the company was founded on the inexpensive production of enzymes needed to create the effect of stonewashed blue jeans (which were originally created with stones) in an expensive process. Since those early days, Dyadic has executed partnerships with many leading companies across several sectors, including Abengoa Bioenergy, BASF, Codexis, and others, for use in industrial (non-pharmaceutical) applications. Going forward we see the potential for Dyadic to leverage its highly efficient platform technology into the Biotechnology, Pharmaceutical, Biosimilars, Vaccines, BioFuels, Agricultural, and multiple other processes where improved manufacturing efficiency becomes both enabling and critical success factors for companies to achieve success.

Exhibit 1. Dyadic's Achievements and Corporate Milestones and Future Catalysts as Presented by the Company.



Source: Dyadic.

Bull Case: From Blue Jeans to BioTech. - Efficiency from a Proven Platform. Dyadic's success revolves around its proprietary protein expression platform; a genetically modified strain of fungus dubbed "C1". Leveraging this "programmable fungus" Dyadic believes they can essentially revolutionize the bioprocessing (biosimilars) and pharma industries manufacturing process, providing a higher level of manufacturing efficiency or a lower cost of production. This is principally the result of the origins of the technology, which was initially developed to lower the cost involved in industrial production. In fact, the C1 platform was initially developed around the process involved with the creation of pre-washed blue jeans. Today, C1 has shown its potential to produce bioproteins faster and at higher concentrations with a lower cost than current industry standards. The pharmaceutical industry's current bioproduction process is built around what is today, 30-year-old technology, such as the use of Chinese Hamster Ovary cell lines as a medium. This process is deeply ingrained within the biotechnology industry despite its high production costs and low efficiency. Through C1, Dyadic is working towards providing the industry with a much more efficient and, therefore, profitable way of producing a wide range of pharmaceutical products. With the advent of bio-generics, we see this technology as enabling lower cost of production which is likely to become one of the key critical success factors in the industry as new entrants compete on price. Dyadic's collaboration with the Serum Institute of India is one example of the company realizing this goal. Through this collaboration Dyadic positions itself to be ready to capitalize on C1's ability to efficiently and cheaply produce vaccines on a global scale. Typically, the low-cost provider has the greatest flexibility. Bio-generics is just one area across the spectrum where the C1 platform is likely to be utilized. Another advantage is clearing IP hurdles. The C1 manufacturing process represents a unique way to manufacture an identical product but using a completely novel manufacturing method. We tend to focus on the biotech industry because the inherent margins are so great as compared to chemicals, petroleum, and other areas, which also represent future revenue streams to the company. Bulls recognize the even a single-digit royalty on any one of the blockbuster drugs that are in the billions, in terms of annual sales, becomes transformative for the company.

Bear Case: Biotech Barriers & The Complexities of a New Platform Technology? Dyadic's C1 technology may very well represent a lower cost of goods, but in the complex world of Biosimilars where companies are required to demonstrate that a product is truly equivalent in a clinical trial, process changes are not trivial. Especially true when a product has already been approved as a biosimilar. A significant process change may re-trigger the need for new trials. As such, bears will argue that Dyadic is shut-out of the majority of biosimilars that are on the market today. This may change in the future as the C1 technology is deployed early in the biosimilar process but converting existing biosimilars may represent too much risk for most biosimilar makers. Another inherent risk may be represented by alternative protein expression platforms capable of efficiently and cheaply producing biopharmaceuticals and available in-house or at more competitive licensing fees. Dyadic's success, in part, hinges on C1 as the best alternative to current practices. In the world of biotechnology, we look for catalysts. Predicting catalyst for Dyadic is very difficult. While we see the potential for new license deals across multiple industries, predicting the deals in and specific terms is near impossible. In short, Dyadic lacks definitive specific catalysts (event and time). Dyadic's aim to replace the industry's current biopharmaceutical production methods can be viewed by bears as a double-edged sword. The potential to change the industry is apparent, but it faces an uphill challenge; pharmaceutical companies must change established infrastructure and methods, with potential regulatory complications, that could inhibit success.

Our Take: Potential to be Revolutionary. Dyadic's C1 shows potential in its ability to revolutionize the biopharmaceutical industry. C1 comes from a solid foundation from its past as an industrial enzyme production platform where it was so efficient, that it can be deployed at an industrial scale. Given the tiny scale by comparison, of biologics, but the incredibly high cost of goods, the utilization of C1 technology makes sense. We also have a great deal of confidence in the management team. The founding CEO, Mark Emalfarb, has built this company, brick by brick, to what it is today, a $140M market capitalization with a quarter of its value in cash. Dyadic's business model of leveraging the C1 platform through licensing and royalty agreements for access to the technology positions the company to reach a wide area of its target market, from biosimilars to industrial production. The company today already has several partners on-board (which we model), including the Serum Institute of India, among other potential biotechnology companies. From these assumptions alone we see upside to the current value. If we assume additional deals happen, we see more upside. Dyadic focuses on large diverse markets with critical needs to improve productivity and efficiency. C1, a robust mature technology, addresses these needs. Dyadic continues to receive validation from successful collaborations with global leaders in bioenergy, biopharma, and animal feed. A low expenditure licensing model designed to build the bridge toward long-term royalty streams from different industries paves the way for Dyadic's future success.

Finances: Dyadic has $37M in cash and short term securities and has a modest burn rate of just $2-$3M per quarter. The Dupont transaction allowed the company to buyback $22M of its own stock, reducing shares outstanding from 36.5M to 26.8M as of 2Q19. Management owns just under 25% of the company. Going forward, we expect the burn rate to fall as revenues (milestones and royalties) rise and offset fixed costs. We also note the company uplisted to the NASDAQ in April.

Exhibit 2. Upcoming Catalysts for Dyadic

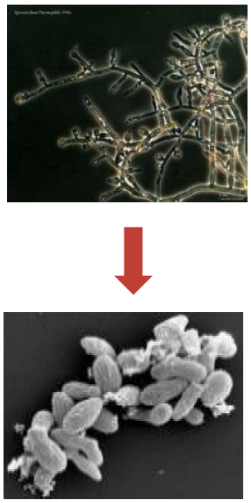
Product	Geography	Event	Timeline	Impact
C1 to produce AAV vectors		large market demand for aav vectors	Future	+
Research Collaborations		Additional Collaborations with pharma companies	Future	+
Research Collaborations		Additional Collaborations with Biotrechnology companies	Future	+
Research Collaborations		Additional Collaborations with Biosimilar companies	Future	+
Research Collaborations		Additional Collaborations with Industrial companies	Future	+
Research Collaborations		Additional Collaborations with Vaccine Makers	Future	+
Serum Institute of India partnership		Expansion of the collaboration: Manufacture of up to 12 vaccines)	Future	+

Stock Significance Scale: + of moderate importance; ++ higher level; +++ very important

Source: Dawson James estimates.

Exhibit 3. C1 (*Myceliophthora thermophila*) as an ideal platform for manufacturing of biologic medicines and vaccines,

- C1 is a thermophilic fungus, *Myceliophthora thermophila*, originally isolated from alkaline soil in Russia
  - C1 has a unique morphology, allowing growth under a broad range of conditions
  - Natural producer of neutral/alkaline cellulases for use with textiles
  - Engineered initially to produce enzymes for biofuels, pulp & paper, etc.
- Dyadic & its licensees invested several hundred million dollars to turn C1 into a industrially proven gene expression platform
  - Low cost, high yield, scalable, with protein stability and facile downstream purification
  - C1 genome fully sequenced and annotated
  - Proprietary & patented genetic elements (tool box) for use in engineering C1 strains
  - C1 received a Generally Recognized As Safe (GRAS) designation from the US FDA (2009)
  - Clear demonstration that C1 can speed development & lower costs of biopharmaceutical production



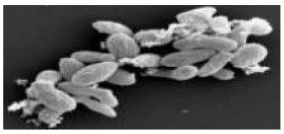
- ✓ Dyadic built an industrial enzyme business, and licensed the C1 technology platform for industrial uses to Abengoa, BASF, Codexis/Shell and others:
  - Generated >$100 mm in product revenues from customers in 35 countries
  - Received > $30 mm in upfront cash payments

Sold the Industrial Biotech Business to DuPont for $75 mm on 12/31/2015

- ✓ We now apply C1 gene expression technology to human and animal therapeutic products

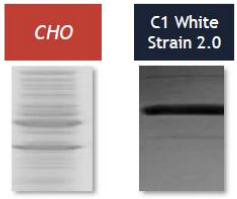
Source: Dyadic Presentation.

Exhibit 4. C1: A More Effective Method of Enzyme Production



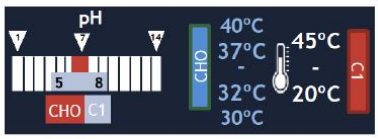
Unique Morphology

- ✓ Translates into better growth conditions
  - Higher yields of secreted protein
  - Lower viscosity



High Purity - 80% of target protein secreted

- ✓ Greater retention of target secreted protein through downstream processing
- ✓ Requires only low cost synthetic media
- ✓ No Viruses which simplifies processing compared to CHO
  - No Low pH viral inactivation
  - No virus nanofiltration



Wide operating conditions for pH and temperature

- ✓ At scales ranging from laboratory shake flasks to 20,000l tanks and above
- ✓ C1 has received GRAS (Generally Recognized as Safe) designation from FDA and is considered fit for human consumption

Shorter Development & Production Cycle

- ✓ Develop g/l/d C1 cell lines in 15 weeks
- ✓ From seed flask to fermenter
  - Savings of nearly 10 -14 days vs CHO
- ✓ Fermentation Cycle time 4-7 days
  - 1/2 to 1/3rd the time of CHO

Source: Dyadic Presentation.

Exhibit 5. Dyadic Within the Industrial Enzyme Market.

Dyadic's Industrial Enzymes

- A growing source of profitable revenue
- Provides further credibility to our research and licensing activities
- Over 20 product offerings including xylanases, cellulases, beta-glucanases and proteases
- Major applications include: animal feed, textiles, brewing and pulp & paper
- Enzyme revenue:

	FY 2010	Nine Months Ended 9-30-11
	$7.4M	$5.5M

- Markets support 35% - 40% gross margins

Source: Dyadic Presentation.

Exhibit 6. Dyadic's approach to commercializing C1

Our Approach to Business Development and to Selection of Internal Programs

DYADIC

- **We meet our business partners and research collaborators where they are, seeking to leverage our C1 technology at little or no cost to us:**
  - For big pharm companies focused on specific therapeutic agents, we seek funded Proof of Concept (POC) collaborations followed by up front access fees, milestones and royalty arrangements
  - For small biotechnology firms, we seek equity, milestones and royalties
    - We own 7.5% of Alphazyme (1), 20% of Novovet, 16.1% of BDI Group, and 16.3% of VLP Bio
- **We resource internal programs where our C1 gene expression technology can have meaningful technological and commercial impact:**
  - Biosimilars and "Bio-betters" (certolizumab and nivolumab)
  - Commercially important metabolites
  - Viral vector manufacture for gene therapy applications

(1) Upon successful transfer of the C1 technology platform and training we are expected to receive 7.5% equity of Alphazyme

DYADIC INFORMATION 18

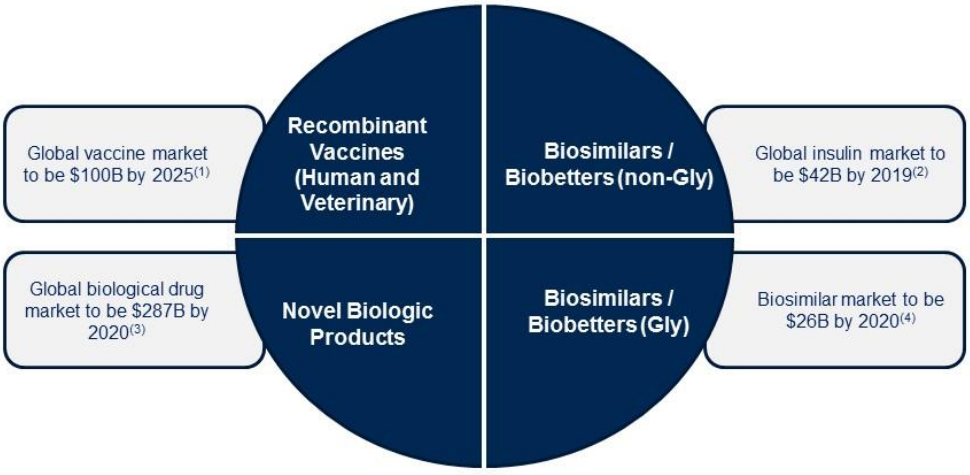
Source: Dyadic Presentation.

Exhibit 7. Dyadic's target markets within the biotech sector

Dyadic Target Markets

DYADIC

The C1 platform technology has the potential speed the development, decrease the CapEx, and lower the cost of manufacturing biologic vaccines and drugs



(1) World Health Organization.
(2) Human Insulin Market - Drugs Type, Brands, Delivery Devices, Applications - Forecasts to 2020.
(3) Global Market Study on Biological Drugs: North America to Witness Highest Growth By 2020.
(4) World Biosimilars Market (follow-on-biologics) Opportunities, and Forecast, 2014-2020.

Source: https://www.dyadic.com/c1-uses/biosimilars/

Product Modeling Assumptions. Dyadic is a platform company based on its C1 technology. The company's strategy, at this point in its evolution, is to pursue license and royalty structured deals across several focus areas which include:

a. **Large Pharma and Biotechnology companies** that have products in early stages of development, so much so, that they can leverage the C1 manufacturing process (as more efficient, more cost-effective) early in the scale-up process.
b. **Biosimilars.** We see "generic biologics" as a new and emerging industry. The industry is only p[partially focused on managing production costs. This is because makers' first priority has been to demonstrate that the manufactured product is truly the same as the brand. As the industry matures, we see the possibility of two key factors that may change, both of which could favor Dyadic.
    i. The industry will ultimately compete on price, so makers with the lowest manufacturing cost will have a strategic advantage.
    ii. Intellectual property Infringement. Brand companies have already pursued IP infringement to prevent generic biosimilars from entering the market. One key area is to claim infringement on the manufacturing process itself. By shifting to a C1 (Dyadic) process, companies would not be infringing on the brand makers process.
c. **Vaccine Industry.** Dyadic currently has a partnership deal (milestones and royalties) with the Serium Institute of India. The arrangement allows Serium to select up to 12 additional projects.
    i. We assume that the rising demand for cheaper, and faster, production of vaccines only continues to rise with time. The global need is great, and in emerging countries, cost-effective production is critical. As Dyadic demonstrates success in the industry we expect additional vaccine makers will utilize the C1 platform.
d. **Industrial Industry.** Dyadic's first production was to move the denim jeans "stone-washed" blue jeans away from using stones to using C1 product methods. Multiple industrial processes could benefit from the cost-effective production methods. We know that Dyadic has worked with the petroleum industry.

Exhibit 8. Market Models: For the purposes of modeling, we assume Dyadic will focus on three areas, Industrials, Vaccines and Pharma and Biotech. -Biosimilars.

Industrial Enzymes Production

Milestone Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Biofuels (ethanol from fuels)			$ 5.0			$ 5.0			$ 5.0				$ 15.0
Animal Feed				$ 10.0			$ 20.0				$ 25.0		
Pulp and Paper					$ 10.0			$ 5.0			$ 5.0		
Textiles			$ 5.0			$ 5.0				$ 15.0			
Food and Food Related				$ 5.0			$ 5.0		$ 5.0			$ 10.0	
Deal No. 6								$ 5.0			$ 5.0		$ 5.0
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Milestone Revenues	$ -	$ -	$ 3.0	$ 4.5	$ 3.0	$ 3.0	$ 7.5	$ 3.0	$ 3.0	$ 4.5	$ 10.5	$ 3.0	$ 6.0

Royalty Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Biofuels (ethanol from fuels)						$ -	$ 4.0	$ 5.0	$ 6.0	$ 7.0	$ 8.0	$ 9.0	$ 10.0
Animal Feed				$ 5.0	$ 7.0	$ 10.0	$ 14.0	$ 18.0	$ 22.0	$ 30.0	$ 35.0	$ 40.0	$ 50.0
Pulp and Paper				$ 5.0	$ 7.0	$ 9.0	$ 9.9	$ 10.9	$ 12.0	$ 13.2	$ 14.5	$ 15.9	$ 17.5
Textiles				$ 5.0	$ 5.8	$ 3.0	$ 3.5	$ 4.0	$ 4.6	$ 5.2	$ 6.0	$ 6.9	$ 8.0
Food and Food Related				$ 5.0	$ 10.0	$ 15.0	$ 20.0	$ 30.0	$ 40.0	$ 50.0	$ 60.0	$ 70.0	$ 80.0
Deal No. 6				$ 5.0	$ 7.0	$ 10.0	$ 11.0	$ 12.1	$ 13.3	$ 14.6	$ 16.1	$ 17.7	$ 19.5
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Royalty Revenues	$ -	$ -	$ -	$ 7.5	$ 11.0	$ 14.1	$ 18.7	$ 24.0	$ 29.4	$ 36.0	$ 41.9	$ 47.9	$ 55.5
Total Industrial Enzyme Adjusted Milestone & Royalty Revenues	$ -	$ -	$ 3.0	$ 12.0	$ 14.0	$ 17.1	$ 26.2	$ 27.0	$ 32.4	$ 40.5	$ 52.4	$ 50.9	$ 61.5

Serium Institute of India & "Other vaccine" Partnerships

Milestone Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Development of up to 12 antibodies and vaccines			$ 5.0			$ 5.0			$ 5.0				$ 15.0
Deal No. 2				$ 10.0			$ 20.0				$ 25.0		
Deal No. 3					$ 10.0			$ 5.0			$ 5.0		
Deal No. 4			$ 5.0			$ 5.0				$ 15.0			
Deal No. 5				$ 5.0			$ 5.0		$ 5.0			$ 10.0	
Deal No. 6								$ 5.0			$ 5.0		$ 5.0
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Milestone Revenues	$ -	$ -	$ 3.0	$ 4.5	$ 3.0	$ 3.0	$ 7.5	$ 3.0	$ 3.0	$ 4.5	$ 10.5	$ 3.0	$ 6.0

Royalty Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Development of up to 12 antibodies and vaccines						$ -	$ 4.0	$ 5.0	$ 6.0	$ 7.0	$ 8.0	$ 9.0	$ 10.0
Option to obtain exclusive commercial sublicense 15 yrs royalty				$ 5.0	$ 7.0	$ 10.0	$ 14.0	$ 18.0	$ 22.0	$ 30.0	$ 35.0	$ 40.0	$ 50.0
Deal No. 3				$ 5.0	$ 7.0	$ 9.0	$ 9.9	$ 10.9	$ 12.0	$ 13.2	$ 14.5	$ 15.9	$ 17.5
Deal No. 4				$ 5.0	$ 5.8	$ 3.0	$ 3.5	$ 4.0	$ 4.6	$ 5.2	$ 6.0	$ 6.9	$ 8.0
Deal No. 5				$ 5.0	$ 10.0	$ 15.0	$ 20.0	$ 30.0	$ 40.0	$ 50.0	$ 60.0	$ 70.0	$ 80.0
Deal No. 6				$ 5.0	$ 7.0	$ 10.0	$ 11.0	$ 12.1	$ 13.3	$ 14.6	$ 16.1	$ 17.7	$ 19.5
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Royalty Revenues	$ -	$ -	$ -	$ 7.5	$ 11.0	$ 14.1	$ 18.7	$ 24.0	$ 29.4	$ 36.0	$ 41.9	$ 47.9	$ 55.5
Total Serum Institute (India) & Other Vaccines Milestone & Royalty Revenues	$ -	$ -	$ 3.0	$ 12.0	$ 14.0	$ 17.1	$ 26.2	$ 27.0	$ 32.4	$ 40.5	$ 52.4	$ 50.9	$ 61.5

Pharma, Biotech and Biosimlars

Milestone Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Deal No. 1			$ 5.0			$ 5.0			$ 5.0				$ 15.0
Deal No. 2				$ 10.0			$ 20.0				$ 25.0		
Deal No. 3					$ 10.0			$ 5.0			$ 5.0		
Deal No. 4			$ 5.0			$ 5.0				$ 15.0			
Deal No. 5				$ 5.0			$ 5.0		$ 5.0			$ 10.0	
Deal No. 6								$ 5.0			$ 5.0		$ 5.0
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Milestone Revenues	$ -	$ -	$ 3.0	$ 4.5	$ 3.0	$ 3.0	$ 7.5	$ 3.0	$ 3.0	$ 4.5	$ 10.5	$ 3.0	$ 6.0

Royalty Revenues (M)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Deal No. 1						$ -	$ 4.0	$ 5.0	$ 6.0	$ 7.0	$ 8.0	$ 9.0	$ 10.0
Deal No. 2				$ 5.0	$ 7.0	$ 10.0	$ 14.0	$ 18.0	$ 22.0	$ 30.0	$ 35.0	$ 40.0	$ 50.0
Deal No. 3				$ 5.0	$ 7.0	$ 9.0	$ 9.9	$ 10.9	$ 12.0	$ 13.2	$ 14.5	$ 15.9	$ 17.5
Deal No. 4				$ 5.0	$ 5.8	$ 3.0	$ 3.5	$ 4.0	$ 4.6	$ 5.2	$ 6.0	$ 6.9	$ 8.0
Deal No. 5				$ 5.0	$ 10.0	$ 15.0	$ 20.0	$ 30.0	$ 40.0	$ 50.0	$ 60.0	$ 70.0	$ 80.0
Deal No. 6				$ 5.0	$ 7.0	$ 10.0	$ 11.0	$ 12.1	$ 13.3	$ 14.6	$ 16.1	$ 17.7	$ 19.5
Probability of Success			30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Total Royalty Revenues	$ -	$ -	$ -	$ 7.5	$ 11.0	$ 14.1	$ 18.7	$ 24.0	$ 29.4	$ 36.0	$ 41.9	$ 47.9	$ 55.5
strial, Vaccines and Pharma & Biotech - Vaccines Milestone & Royalty Revenues			$ 3.0	$ 12.0	$ 14.0	$ 17.1	$ 26.2	$ 27.0	$ 32.4	$ 40.5	$ 52.4	$ 50.9	$ 61.5

Source: Dawson James estimates.

Valuation. If we flip coin four times, the reality is we have no idea how many times it will be heads vs. tails. The same thing is true in terms of our ability to predict the next partnership or license deal, Dyadic may announce. With that said, if we flip a coin, a hundred times, we can expect about half of the tosses to be heads (or tails). For Dyadic, we evaluate broadly the utility of the C1 platform across three market segments. Pharma and Biotechnology, Biosimilars, Vaccines and Industrial markets such as Petroleum or Blue Jeans. We assume eight possible deals over the next ten years, in each of the three segments, or 24 possible revenue streams, each with their own milestones and royalties. We know it's unlikely that the company will achieve all 24 deals, and we also know its equally unlikely they will have no new deals (given the existing track record). For this modeling exercise we apply a 70% discount (or 30% probability of success) factor, to determine the revenue stream. This discount is in addition to our (r) discount rate that we use in our Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum of the Parts (SOP) models. For this rate we select r = 30% (our highest discount). Our model uses a fully diluted projected out-year (2030) share count. Our three models (FCFF, dEPS, and SOP) are then equal-weighted, averaged and rounded to the nearest whole number to derive our 12 months price target of $14.00

Exhibit 9. Discounted Free Cash Flow Model

Average	14

Price Target	14
Year	2019

units ('000)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	(9,905)	(3,705)	23,041	28,856	37,817	64,862	66,934	82,758	106,964	142,284	137,455	169,017
Tax Rate	0%	0%	0%	0%	10%	15%	20%	22%	24%	25%	27%	29%
EBIT (1-t)	(9,905)	(3,705)	23,041	28,856	34,035	55,133	53,547	64,551	81,293	106,713	100,342	120,002
CapEx	(24,523)	-	-	-	-	-	-	-	-	-	-	-
Depreciation	91	-	-	-	-	-	-	-	-	-	-	-
Change in NWC												
FCF	(34,338)	(3,705)	23,041	28,856	34,035	55,133	53,547	64,551	81,293	106,713	100,342	120,002
PV of FCF	(34,338)	(3,222)	17,422	18,974	19,460	27,411	23,150	24,267	26,575	30,335	24,803	25,794
Discount Rate	15%											
Long Term Growth Rate	1%											
Terminal Cash Flow	865,731											
Terminal Value YE2027	186,083											
NPV	386,712											
NPV-Debt												
Shares out ('000)	28,049	2030E										
NPV Per Share	14											

Source: Dawson James

Exhibit 10. EPS Model

Current Year		2019
Year of EPS		2030
Earnings Multiple		15
Discount Factor		15%
Selected Year EPS	$	4.08
NPV		13.16

	Discount Rate and Earnings Multiple Varies, Year is Constant						
	13.16	5%	10%	15%	20%	25%	30%
Earnings Multiple 0	0	0	0	0	0	0	0
Earnings Multiple 5	11.94	7.16	4.39	2.75	1.75	1.14	
Earnings Multiple 10	23.87	14.31	8.78	5.50	3.51	2.28	
Earnings Multiple 15	35.81	21.47	13.16	8.24	5.26	3.42	
Earnings Multiple 20	47.74	28.62	17.55	10.99	7.01	4.56	
Earnings Multiple 25	59.68	35.78	21.94	13.74	8.77	5.70	
Earnings Multiple 30	71.62	42.93	26.33	16.49	10.52	6.83	
Earnings Multiple 35	83.55	50.09	30.72	19.23	12.28	7.97	

Source: Dawson James

Exhibit 11. Sum-of-the-Parts Model

Dyadic	LT Gr	Discount Rate	Yrs to Peak	% Success	Peak Sales (MM's)	Term Val)
Insutrial	1%	15%	5	30%	$205	$1,464
NPV						$5.1
Vaccines	1%	15%	5	30%	$205	$1,464
NPV						$5.1
Pharma & Biotech	1%	15%	5	30%	$205	$1,464
NPV						$5.1
NPV						$0.0
Net Margin						65%
MM Shrs OS (2030E)						28
Total						$15.18

Source: Dawson James

Risk Analysis

In addition to the typical risks associated with development stage technology and biotechnology-related companies, potential risks specific to Dyadic are as follows:

Partnership risk. The company is also expected to make agreements with partners for additional products, but there can be no assurances that the company will be able to secure favorable partnerships.

Commercial risk. There are no assurances that the company will be able to achieve significant sales, market share, or become profitable.

Clinical and regulatory risk. Dyadic may pursue the development of its products and face the associated regulatory risks.

Financial risk. The company may need to raise capital in the marketplace, and there can be no assurances that the company will be able to successful raise capital and or do so, at favorable terms.

Legal and intellectual property risk. The company may have to defend its patents and technical know-how, and there can be no assurances that the patents will not be infringed or will be held as valid if challenged, and or that the company may infringe on third parties' patents.

Exhibit 12. Income Statement

DYAI.: Income Statement ($000)																	
.: YE September 31	2018A	1Q19A	2Q19A	3Q19E	4Q19E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue:																	
Research & Development Revenue	1,295	403	391	350	375	1,518	1,549	1,580	1,611	1,644	1,676	1,710	1,744	1,779	1,815	1,851	1,888
Total Product Sales	1,295	403	391	350	375	1,518	1,549	1,580	1,611	1,644	1,676	1,710	1,744	1,779	1,815	1,851	1,888
Industrial Milestone Revenues							3,000	4,500	3,000	3,000	7,500	3,000	3,000	4,500	10,500	3,000	6,000
Industrial Royalty Revenues							-	7,500	11,025	14,100	18,705	23,987	29,355	36,019	41,890	47,880	55,502
Vaccine & Related Milestone Revenues							3,000	4,500	3,000	3,000	7,500	3,000	3,000	4,500	10,500	3,000	6,000
Vaccine & Related Royalty Revenues							-	7,500	11,025	14,100	18,705	23,987	29,355	36,019	41,890	47,880	55,502
Pharma and Bio Related Milestone Revenues							3,000	4,500	3,000	3,000	7,500	3,000	3,000	4,500	10,500	3,000	6,000
Pharma and Bio Related Royalty Revenues							-	7,500	11,025	14,100	18,705	23,987	29,355	36,019	41,890	47,880	55,502
Total Revenue	**1,295**	**403**	**391**	**350**	**375**	**1,518**	**9,000**	**36,000**	**42,075**	**51,300**	**78,615**	**80,962**	**97,066**	**121,558**	**157,170**	**152,639**	**184,505**
Expenses:																	
Cost of research and development revenue	1,027	328	322	300	300	1,250	1,275	1,301	1,327	1,353	1,380	1,408	1,436	1,465	1,494	1,524	1,554
Research & Development	2,102	692	818	800	800	3,111	3,173	3,236	3,301	3,367	3,434	3,503	3,573	3,645	3,717	3,792	3,868
Research & Development (related party)	1,216	389	336	350	350	1,426	1,454	1,483	1,513	1,543	1,574	1,606	1,638	1,671	1,704	1,738	1,773
General & Adminastrative	4,523	1,428	1,871	1,600	1,750	6,649	6,782	6,917	7,056	7,197	7,341	7,488	7,637	7,790	7,946	8,105	8,267
Foreign Currency Exchange	21	6	5	5	5	21	21	22	22	23	23	24	24	25	25	26	26
Total Expenses	8,888	2,844	3,352	3,055	3,205	12,456	12,705	12,959	13,219	13,483	13,753	14,028	14,308	14,594	14,886	15,184	15,488
Operating Income (Loss)	(7,592)	(2,441)	(2,962)	(2,705)	(2,830)	(10,938)	(3,705)	23,041	28,856	37,817	64,862	66,934	82,758	106,964	142,284	137,455	169,017
Settlement of Litigation	-																
Interest Income, net	895	267	266	250	250	1,033											
Total Other Income				**(2,455)**	**(2,580)**	**(5,035)**	**(3,705)**	**23,041**	**28,856**	**37,817**	**64,862**	**66,934**	**82,758**	**106,964**	**142,284**	**137,455**	**169,017**
Pretax Income	(6,698)	(2,174)	(2,696)	(2,455)	(2,580)	(9,905)	(3,705)	23,041	28,856	37,817	64,862	66,934	82,758	106,964	142,284	137,455	169,017
Income Tax Benefit (Provision)	1,006	1		-	-	1	-	-	-	3,782	9,729	13,387	18,207	25,671	35,571	37,113	49,015
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	15%	20%	22%	24%	25%	27%	29%
Gain (Loss) from discontinued operations																	
GAAP Net Income (Loss)	(5,692)	(2,175)	(2,696)	(2,455)	(2,580)	(9,906)	(3,705)	23,041	28,856	34,035	55,133	53,547	64,551	81,293	106,713	100,342	120,002
GAAP-EPS	(0.21)	(0.08)	(0.10)	(0.09)	(0.10)	(0.37)	(0.14)	0.85	1.06	1.25	2.01	1.95	2.34	2.93	3.83	3.59	4.28
GAAP-EPS (Dil)	(0)	(0.08)	(0.10)	(0.09)	(0.10)	(0.37)	(0.13)	0.81	1.01	1.19	1.92	1.86	2.23	2.80	3.66	3.43	4.08
Wgtd Avg Shrs (Bas) - '000s	27,673	26,713	26,829	26,856	26,882	26,820	26,950	27,058	27,166	27,275	27,384	27,494	27,604	27,715	27,826	27,937	28,049
Wgtd Avg Shrs (Dil) - '000s	27,673	26,713	26,829	26,856	26,882	26,820	26,950	27,058	27,166	27,275	27,384	27,494	27,604	27,715	27,826	27,937	28,049

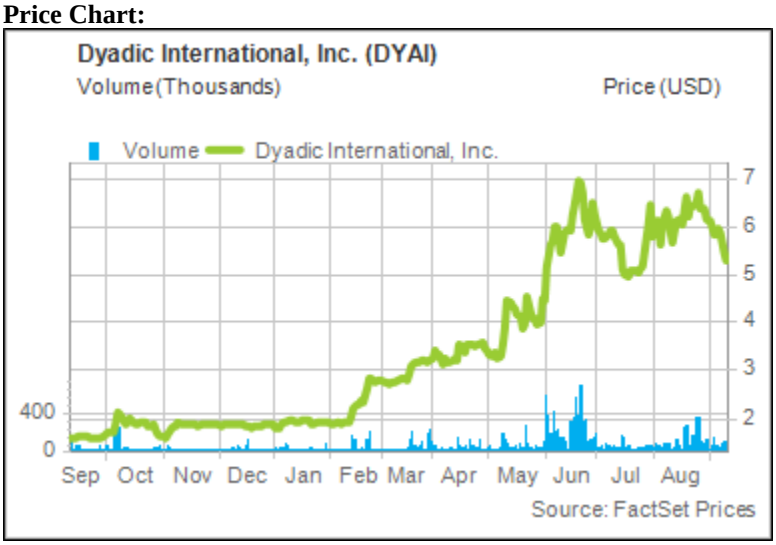
Source: Dawson James estimates.

Companies mentioned in this report:

DuPont
Sunoco
Codexis
Royal Dutch Shell
Cosan
Raizen
Abengoa Bioenergy
BASF

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:
Initiated – Buy – October 14, 2019 – Price Target $14.00

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	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	28	82%	5	18%
Market Perform (Neutral)	6	18%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	34	100%	5	15%

Accurate as of 10.14.19

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