LITCHFIELD HILLS RESEARCH

Mateon Therapeutics, Inc.

MATN-Buy-$3 PT

Action Summary – 7 December 2020

Analyst Theodore R. O'Neill ***is initiating coverage of Mateon Therapeutics, Inc. (MATN)***

- **We are initiating coverage of Mateon Therapeutics, Inc. with a Buy rating and a $3 price target**. MATN is a clinical stage biopharmaceutical company developing four investigational drugs for difficult to treat cancers, of which two are also being investigated to treat COVID-19 patients. In addition, it has the rights to produce and sell an artificial intelligence (AI) and vision technology system that can be used to meet multiple unmet needs within the pharma and medical device industries.
- **While there is a vaccine, treatments are an essential backstop to manage COVID**-19
- **It is in Phase 2 clinical trials with its OT-101 COVID-19 treatment in Latin America with 72 patients and this trial was selected by IBM Watson Health for the use of IBM Clinical Development Solution at no cost to the company.**
- **It is in Phase 4 clinical trial with its low-cost, plant based ARTIVedaTM COVID-19 treatment in India, Nigeria and Latin America.** The global trial is expected to enroll 3,000 pts
- **EdgePoint, its AI subsidiary** plans to deploy its technology for Good Manufacturing Practice (GMP) drug manufacturing. It could eliminate human errors in supply chain and increasing compliance with warehouse operating procedures.
- **Attractive valuation. The shares appear to us inexpensive on an absolute and relative basis compared to peers**.

12/4 Closing price: $0.20	**Market cap: $18 million**	**2021 P/E: NMF**	**EV/2021 Sales: 7.9**
Shares outstanding: 89.6 million	**Insider ownership: 36%**	**3-mo avg. trading volume: 72,018**	**Dividend/Yield: NA/NA**

GAAP estimates (EPS in dollars – Revenue in thousands)

Period	EPS	Revenue	Op Margin
1Q20A	$(0.05)	$341	NMF
2Q20A	$ 0.01	$1,400	NMF
3Q20A	$(0.02)	$0	NMF
4Q20E	$(0.02)	$0	NMF
FY20E	$(0.09)	$1,741	NMF
1Q21E	$(0.02)	$0	NMF
2Q21E	$(0.01)	$500	1%
3Q21E	$(0.00)	$1,000	NMF
4Q21E	$(0.00)	$1,000	NMF
FY21E	$(0.03)	$2,500	NMF
1Q22E	$0.00	$2,000	(5)%
2Q22E	$0.00	$2,000	(5)%
3Q22E	$0.02	$3,000	23%
4Q22E	$0.02	$4,000	38%
FY22E	$0.04	$11,000	18%

Note: Numbers may not add due to rounding. See our full model in the back of this report.

Cash balance (in thousands)

• 2020E	• $167
• 2021E	• $485
• 2022E	• $6,100

Debt (in thousands)

• 2020E	• $2,000
• 2021E	• $2,200
• 2022E	• $0

Adj. EBITDA (in thousands)

• 2020E	• ($5,787)
• 2021E	• ($975)
• 2022E	• $6,175

Risks/Valuation

- Risks include: limited resources; highly regulated and competitive industry; commercialization of technology.
- Our $3 target is derived using a discounted future earnings model

Company description: Mateon was created by the recent reverse merger with Oncotelic, Inc., which became a wholly owned subsidiary of Mateon, thereby creating an immuno-oncology company dedicated to the development of first in class RNA therapeutics as well as small molecule drugs against cancer and infectious diseases.

Figure 1 – Mateon Therapeutics, Inc. – One-year Trading snapshot

Source: Refinitiv

Investment Thesis

We are initiating coverage of Mateon Therapeutics, Inc. with a Buy rating and a $3 price target. MATN is a clinical stage biopharmaceutical company developing four investigational drugs for difficult to treat cancers, of which two are also being investigated to treat COVID-19 patients. In addition, it has the rights to produce and sell an artificial intelligence (AI) and vision technology system that can be used to meet multiple unmet needs within the pharma and medical device industries.

While there are now multiple approved vaccines, we will still need effective treatments for COVID-19. Treatments are an essential backstop to manage illness. Not everyone will get the vaccine, it isn't 100% effective and we do not yet know how long immunity will last. There are parts of the globe where the vaccine may be in limited supply for many years and in any case, COVID-19 will be with is forever.

It is in Phase 2 clinical trials with its OT-101 COVID-19 treatment in Latin America with 72 patients and this trial was selected by IBM Watson Health for the use of IBM Clinical Development Solution at no cost to the company.

It is in Phase 4 clinical trial with its low-cost, plant based ARTIVedaTM COVID-19 treatment in India, Nigeria and Latin America. The global trial is expected to enroll 3,000 pts. It executed a contract with an Indian company for manufacturing, sales, and marketing of ARTIVedaTM in India. ARTIVedaTM will be launched in India against COVID-19 before year end.

EdgePoint, its AI subsidiary plans to deploy its technology for Good Manufacturing Practice (GMP) drug manufacturing. It could eliminate human errors in supply chain and increasing compliance with warehouse operating procedures.

Management appears to be particularly skilled at advancing drugs through the regulatory process.

Attractive valuation. The shares appear to us inexpensive on an absolute and relative basis compared to peers.

Valuation Methodology

We believe MATN is undervalued and we support that belief with two valuation techniques, both of which generate approximately the same figure: $3.00. For the purposes of determining our price target we use a discounted future earnings model. For the purpose of confirming our price target we look at comparable company valuations:

1) The discounted value of all future earnings was used for our price target (see Figure 2)
2) Valuation relative to peers (see Figure 3)

Discounted Future Earnings – Basis for Price Target

Our 12-month price target of $3.00 is based on a discounted future earnings model (Figure 2). For the purposes of deriving an earnings-based price target, we assume the company incurs losses until 2022 and we take, what we think is a very conservative approach to earnings growth. The model sums up all earnings per share, discounted at 15% to arrive at a per share valuation. Note, this model understates future novel product developments, probably understates the tax benefits, but offsetting that, the earnings never have a down year. The implied share price is $3.19 which we round down to $3.00.

Figure 2 – Mateon Therapeutics, Inc. – Discounted Earnings Valuation

Discounted Earnings:		**$3.19**
Year	EPS	Discounted EPS
2020	(0.09)	(0.09)
2021	(0.03)	(0.03)
2022	0.05	0.04
2023	0.20	0.13
2024	0.30	0.17
2025	0.35	0.17
2026	0.49	0.21
2027	0.74	0.28
2028	0.76	0.25
2029	0.76	0.22
Terminal Value:		1.84

Source: Litchfield Hills Research LLC

Valuation Relative to Peers

Here we are using multiples of book and multiple of sales because the company is not yet profitable. The shares sell at a significant discount to peers (Figure 3) ranging from a discount of 88% on book and 64% on 2021 EV / Sales. If the shares were to trade to half our price target it would only reach the average multiple to book. At our price target the shares would trade at the high end of the range. Comparables can be found in Figure 9.

Figure 3 –Mateon Therapeutics, Inc. – Summary Discount to Peers

	Price to Book	2021 Sales Multiple	2021 EV / Sales
Average	9.71	26.64	21.97
MATN	1.21	7.18	7.93
Discount to peers	**88%**	**73%**	**64%**

Source: Litchfield Hills Research LLC and Refinitiv Eikon

Guidance and Financial Forecasts

The company provides no guidance. Our financial forecast makes many assumptions in order to determine a valuation. We have tried to be as conservative as possible, but the nature of this particular business is that if it can get very profitable very quickly. If the products are accepted and priced as the company hopes, we believe our model may turn out to be conservative in terms of earnings growth

Company background

Mateon Therapeutics is a clinical stage biopharmaceutical company developing four investigational drugs for difficult to treat cancers, of which two are also being investigated to treat COVID-19 patients. In addition, it has the rights to produce and sell an artificial intelligence (AI) and vision technology system that can be used to meet multiple unmet needs within the pharma and medical device industries.

It is in Phase 2 clinical trials with its OT-101 COVID-19 treatment in Latin America with 72 patients and this trial was selected by IBM Watson Health for the use of IBM Clinical Development Solution at no cost to the company.

It is in Phase 4 clinical trial with its ARTIVeda™ COVID-19 treatment in India, Nigeria and Latin America. The global trial is expected to enroll 3,000 pts. It executed a contract with an Indian company for manufacturing, sales, and marketing of ARTIVeda™ in India. ARTIVeda™ will be launched in India against COVID-19 before year end.

It completed a reverse merger with Oncotelic, Inc. last year and has obtained shareholder approval to change its name to Oncotelic and its symbol on the exchange following regulatory bodies approval.

Current product portfolio:

- OT-101 for treatment of certain cancers, and the same drug for the treatment of COVID-19 as well as other pandemics
- Two other treatments for cancer: Oxi4503 and CA4P
- ARTI/Veda™/ArtiShield™ a therapeutic pharmaceutical, nutraceutical and herbal supplement for treatment against COVID-19
- An AI technology, it is calling EdgePoint, vision grid and platform that can be used to meet multiple unmet needs within the pharma, medical device and Telemed industries

Product Status:

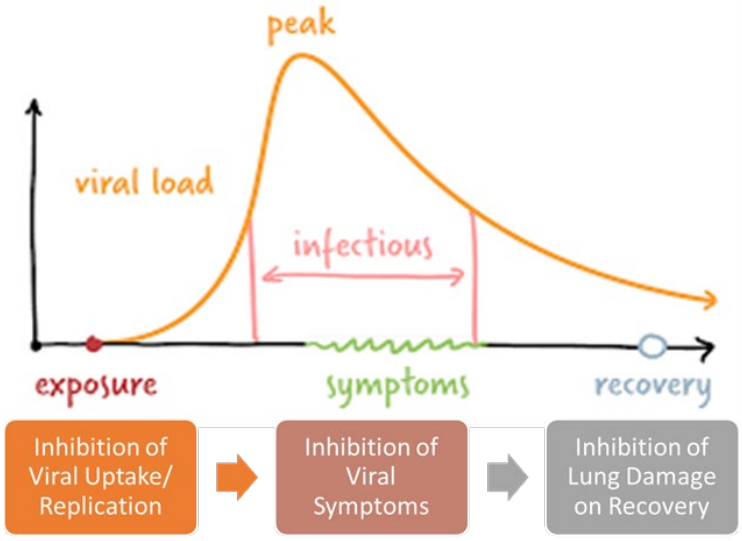
OT-101

Actively moving OT-101 through clinical development against COVID-19. Phase 2 in Latin America with 72 patients, has regulatory approval in Argentina and Peru and is actively working on approval Brazil.

ARTIVeda™/ArtiShield™

ARTIVeda™ is Mateon's lead Ayurvedic drug against COVID-19 in India and ArtiShield™ is for Rest-of-World. The company has regulatory approval from the Ministry of Ayurveda, Yoga, Neuropathy, Unani, Siddha and Homeopathy (Ministry of AYUSH) to manufacture and sales in India. It is conducting a phase IV trial in India. ARTIVeda™ is expected to be effective across the entire continuum of COVID-19 including inhibition of viral replication, suppression of viral symptoms, and late stage lung scarring/fibrosis (Figure 4). The trial is referred to as ARTI-19. It has a executed an agreement with a manufacturing and marketing partner: Windlas Biotech Private Ltd which will manufacture ARTIVeda™/ArtiShield™ for both trial and commercial production. The company hopes to enroll 3,000 patients globally. Together with Windlas, Mateon will be launching ARTIVeda™ in India before year end. Windlas promotes more than 120 chronic and acute care branded products (allopathic, nutraceutical and Ayush formulations) through its "affordable generics platform" spanning over 950 wholesalers across India. Windlas branded medicines and wellness products are sold in several markets across the globe including Sri Lanka, Vietnam, Thailand and Myanmar.

Figure 4 – Mateon Therapeutics, Inc. – Phase IV trials to prove effectiveness across the entire continuum



Source: Company presentation

In November 30, 2020 Mateon released preliminary data on the study which look encouraging:

- The India arm of ARTI-19 global study is on track to complete enrollment of the first 120 cohort by Dec 15, 2020, of which 78 patients have already been randomized.
- Interim analysis of the first 32 pts (8 WHO scale 2 and 24 WHO scale 4 on randomization) was performed.
- Statistically significant Time dependent improvement in WHO scale following treatment with ARTIVeda™+ current standard of care protocol (SOC) versus SOC alone was observed.
- 75% of WHO scale 4 patients exhibited a drop to WHO scale 3 on Day Two of treatment with ARTIVeda™. Note: WHO scale 3 does not require hospitalization.
- 40% of WHO scale 4 patients exhibited a drop to WHO scale 1 on day 5 of treatment with ARTIVeda™. Note: WHO scale 1 is asymptomatic.

The World Health Organization clinical progression scale is shown in Figure 5

Figure 5 – Mateon Therapeutics, Inc. – WHO Clinical Progression Scale

Patient State	Descriptor	Score
Uninfected	Uninfected; no viral RNA detected	0
Ambulatory mild disease	Asymptomatic; viral RNA detected	1
	Symptomatic; independent	2
	Symptomatic; assistance needed	3
Hospitalised: moderate disease	Hospitalised; no oxygen therapy*	4
	Hospitalised; oxygen by mask or nasal prongs	5
Hospitalised: severe diseases	Hospitalised; oxygen by NIV or high flow	6
	Intubation and mechanical ventilation, pO_2/FiO_2 ≥150 or SpO_2/FiO_2 ≥200	7
	Mechanical ventilation pO_2/FIO_2 <150 (SpO_2/FiO_2 <200) or vasopressors	8
	Mechanical ventilation pO_2/FiO_2 <150 and vasopressors, dialysis, or ECMO	9
Dead	Dead	10

Source: The World Health Organization

The product, ARTIVeda™, is a formulated plant extract of the indigenous plant Artemisia, known in Sanskrit texts as Damanaka. ARTIVeda™ is expected to be effective through the entire infection cycle. The active component of ARTIVeda™ has been identified as artemisinin. Through proprietary Good Manufacturing Practice (GMP) quality

extraction and manufacturing processes, the Artemisia extract was rendered active against SARS-CoV-2 with robust Safety Index (SI) greater than 100 (ratio of nonspecific cell kill versus viral kill). Other extracts have SI <10. Testing was performed at the Institute for Antiviral Research, which is funded by US National Institute of Health, the National Institute of Mental Health and the Department of Defense. The product is protected by a patent portfolio of over 15 international Mateon patents. The mechanism of action against COVID-19 has been confirmed in 5 key peer reviewed international scientific/medical publications. ARTIVeda™ is designed to target multiple viral threats including COVID-19 by suppressing both viral replication and clinical symptoms that arise from viral infection. A phase IV trial looking at ARTIVeda™ in COVID-19 is ongoing in India and globally. The US name for this drug product is ArtiShield™. The company is looking to leverage ex-US data for the commercialization of ArtiShield™ in the US. The distinct advantage of this product is that it would be a be cost effective prophylactic suitable for global deployment.

Commercialization and continuing development of ArtiShield™ outside of India will follow the traditional pharmaceutical route and if successful will apply for Emergency Use Authorization (EUA).

Other Oncology Programs

For the other oncology programs the company is trying to advance these but given the pandemic it may be better to go slowly because you don't want to start a trial and risk its failure due to operational issues. These delayed programs include:

- Adult programs- China only
  - OT-101 Pancreatic cancer - If interim read is good in 11 months post start date- will raise additional funds to run
    1. OT-101- glioblastoma
    2. Oxi4503- AML
    3. CA4P- Melanoma
- Pediatric Programs- Global/ again on hold until after pandemic
  - OT-101/ DIPG
  - OXi4503/ acute myeloid leukemia (AML) and myelodysplastic syndromes
  - Ca4P/ in combination with a checkpoint inhibitor for the treatment of advanced metastatic melanoma

Background on Oncotelic, Inc. with which it merged in 2019

On November 5, 2020, the Company filed an amendment to its Certificate of Incorporation with the Secretary of State for the State of Delaware changing its name from "Mateon Therapeutics, Inc." to "Oncotelic Therapeutics, Inc." A notice of corporate action has been filed with the Financial Industry Regulatory Authority (FINRA), requesting approval to change its name and ticker symbol. The Company is still awaiting FINRA's approval on its notice of corporate action, and upon receipt of acceptance, the Company's ticker symbol will be changed to reflect the Company's name change.

Oncotelic's self-immunization protocol (SIP™) is based on novel and proprietary sequential treatment of cancers with OT-101 (an antisense against TGF-ß2) and chemotherapies. This sequential treatment strategy is aimed at achieving effective self-immunization against a patients' own cancer, resulting in a robust therapeutic immune response and consequently better control of the cancer and improved survival. Prolonged states of being cancer-free have been observed in some patients with the most aggressive forms of cancer, raising a renewed hope for a potential cure. The use of OT-101 lifts the suppression of the patient's immune cells around the cancer tissue, providing the foundation for an effective initial priming, which is critical for a successful immune response. The subsequent chemotherapy results in the release of neoantigens that result in a robust boost of the immune response. The company believes that a rational combination of the Oncotelic SIP™ platform with immune-modulatory drugs like interleukin 2 (IL-2) and/or immune checkpoint inhibitors has the potential to help achieve sustained and robust immune responses in patients with the most difficult-to-treat forms of cancer.

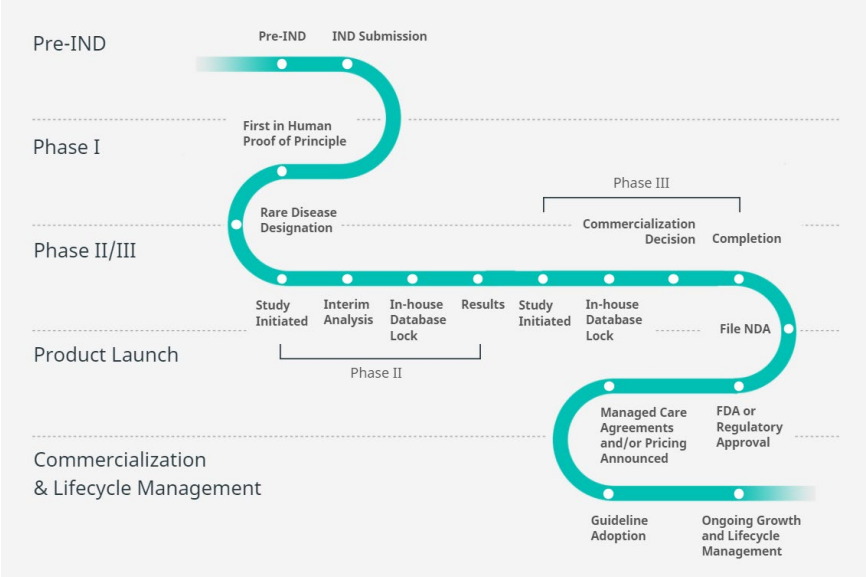
Oncotelic's lead product candidate, OT-101, is being developed as a broad-spectrum anti-cancer drug that can also be used in combination with other standard cancer therapies to establish an effective multi-modality treatment strategy for difficult-to-treat cancers. It plans to initiate phase 3 clinical trials for OT-101 in both high-grade glioma and pancreatic cancer. During phase 2 clinical trials in pancreatic cancer, melanoma, and colorectal cancers (Study P001) and in high-grade gliomas (Study G004), meaningful clinical benefits were observed and OT-101 exhibited a favorable safety profile. These clinical benefits included long-term survival and meaningful tumor reduction. Both partial and complete

responses have been observed in the G004 Phase 2 clinical trial of OT-101 as a single agent in patients with aggressive brain tumors.

Oncotelic is also working on developing OT-101 as a possible drug candidate that can be deployed in various epidemic and pandemic diseases, such as Severe Acute Respiratory Syndrome ("SARS") and specifically for the current COVID-19. The Company has initiated clinical trials in Latin America to evaluate the efficacy of OT-101 against COVID-19 and expects preliminary results in Q1, 2021. The Company plans to initiate the Company's Phase 2 clinical trial of OT-101, a TGF-β antisense, for the treatment of patients with mild to severe COVID-19 infection. This multi-center, double blind, randomized, placebo-control study will evaluate the safety and efficacy of OT-101 in combination with standard of care on two (2) patient cohorts – 1) mild or moderate disease, and 2) severe disease requiring mechanical ventilation or intubation. The study will enroll approximately 24 patients in Argentina and 48 pts from Peru. An additional trial will be conducted in Brazil looking at OT-101 alone or in combination with ARTIVeda™ in severe COVID-19 with 36 pts. With positive data from these trials, the company is planning to conduct global phase 3 trials to obtain regulatory approval including EUA.

As a reminder of the regulatory path for drug development in the U.S. we have included Figure 6

Figure 6 – Mateon Therapeutics, Inc. – Regulatory Pathway to Commercialization



Source: IQVIA Biotech

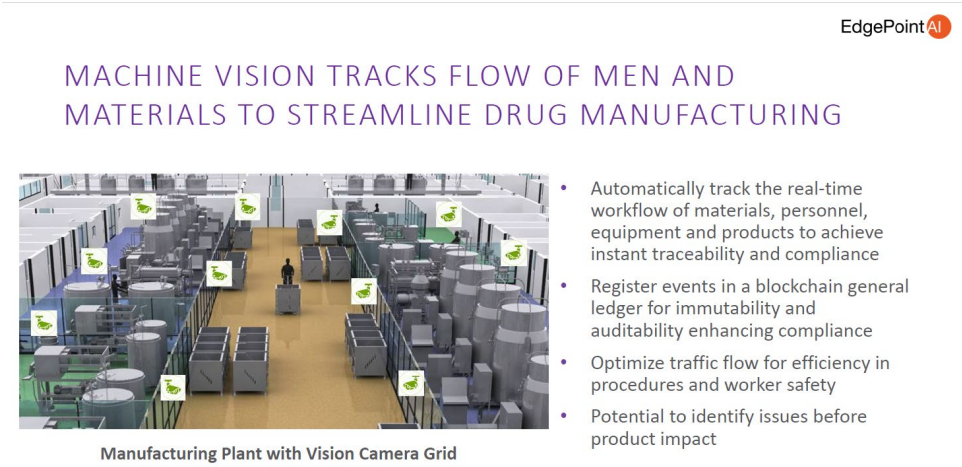
Background on the PointR technology and Mateon's EdgePoint, Inc. Subsidiary

Manufacturing pharmaceuticals is regulated by the FDA with the requirement to adhere to Good Manufacturing Practice (GMP). GMP is followed to ensure that products are consistently produced and controlled according to quality standards. In August 2019, MATN acquired PointR Data, Inc. with rights to employ the technology in healthcare

verticals. PointR developed a visual technology that can track and assure that manufacturing sites are following GMP and document adherence to standards in Blockchain so that it cannot be modified. This technology turns out to have multiple applications in healthcare settings.

The PointR technology is integrated into the company's subsidiary EdgePoint Inc. AI platform. EdgePoint plans to deploy its tested technology for GMP drug manufacturing (Figure 7). It could eliminate human errors in supply chain and increasing compliance with warehouse operating procedures. For example, the warehouse module will automatically create a shopping list from standard templates and alert supply chain personnel to collect and deliver a list of raw materials to manufacturing.

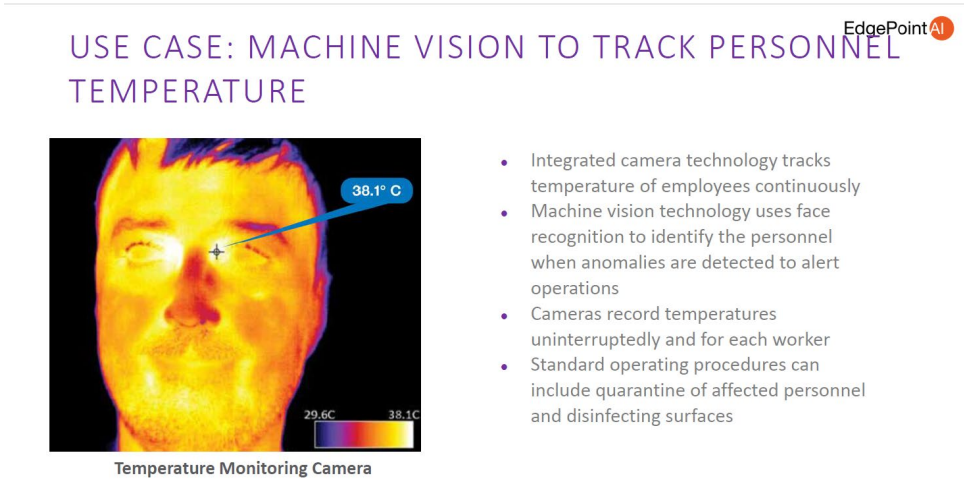
Figure 7 – Mateon Therapeutics – Vision Grid Application



Source: Company presentation

To support the anti-viral drug program, EdgePoint is developing an AI app to remotely monitor patients' respiratory status just using a mobile phone. Protected by patents and partnership with IBM Watson Health Research the app allows patients to cough and speak into a mobile phone app that can be operated either by a nurse or by the end-user patient at home. The app is part of the company's Telehealth platform to remotely monitor patient's progression of disease. In another example, it can continuously monitor employee temperature (Figure 8).

Figure 8 – Mateon Therapeutics, Inc. – Employee Temperature Tracking



Source: Company presentation

In the pharmaceutical industry PointR's AI combined with Blockchain will be used in the entire life cycle of a drug: discovery, clinical trials and manufacturing. Leveraging its deep partnership with IBM, the PointR team will combine its own AI Vision technology with industry standard Blockchain to transform drug manufacturing and real-world evidence monitoring for clinical trials. The Company is also developing AI driven telehealth and other applications, that would be used in health monitoring and supporting the Company's various clinical programs.

According to the IQVIA Institute, artificial intelligence is considered by many to be one of the trends driving change in oncology clinical development, although we believe its application in medicine extends well beyond oncology.

EdgePoint, Inc. in conjunction with IBM Power AI Vision and IBM developed blockchain Hyper-ledger is executing its proof-of-concept manufacturing concept with iBIO, Inc. and Windlas, its ArtiShield™ partner. It will initially focus on supply-chain optimization.

Additional Telemed opportunities

Mateon's clinical trials of the anti-viral agent ARTIVeda™ will deploy the AI app to COVID patients in the study to collect and score data by medical professionals. The data will be used by the AI to predict and diagnose patients as a de-novo software as a medical device (SaMD). After regulatory approvals, the app will be bundled with ARTI-Shield™ to be prescribed by physicians. Patients will be able to self-monitor progression of their respiratory condition with the AI app much as they check their temperature with a thermometer. The app virtualizes and expands the use of spirometers in the form of a software app.

Ayurvedic Medicine and Opportunities

The ancient Indian medical system, also known as Ayurveda, is based on ancient writings that rely on a "natural" and holistic approach to physical and mental health. Ayurvedic medicine is one of the world's oldest medical systems and remains one of India's traditional health care systems. Ayurvedic treatment combines products (mainly derived from plants, but may also include animal, metal, and mineral), diet, exercise, and lifestyle. According to the National Institute of Health, although Ayurvedic medicine and its components have been described in many scholarly articles, only a small number of clinical trials using these approaches have been published in Western medical journals. About 240,000 American adults use Ayurvedic medicine.

The company has partnered with Windlas Biotech Private Ltd. which will be responsible for developing, manufacturing, and supplying Artemisinin (under the trade name ARTIVeda™ within India and ArtiShield™ in the rest of the world. Windlas will also be responsible to market Artemisinin and its variants in India. Under the terms of the

Commercialization Agreement, Windlas and the company will evenly split all profits derived from commercialization of Artemisinin within India. For all other territories, which excludes China and its territories and the Americas, the profit-split ratio is to be determined and negotiated on a country-by-country basis. Artemisinin is purified from a plant Artemisia. Artemisinin can target multiple viral threats including COVID-19 by suppressing both viral replication and clinical symptoms that arise from viral infection. Viral replication cannot occur without TGF-β. The transforming growth factor (TGF-β) family of growth factors controls an immense number of cellular responses and figures prominently in development and homeostasis (keeps biological systems stable) of most human tissues. Artemisinin also has been reported to have antiviral activities against hepatitis B and C viruses, human herpes viruses, HIV-1, influenza virus A, and bovine viral diarrhea virus in the low micromolar range.

Strategy

The goal is to advance drug candidates into late stage pivotal clinical trials and partner with large pharma for sales and marketing. The company has in depth regulatory knowledge for drug approval. The company has three Rare Pediatric Designation (RPD) programs which if approved will generate vouchers. These vouchers fast-track FDA approval. In the recent past these have been sold to larger pharmaceutical companies for ~$100MM each. The company's developments with COVID-19 is progressing nicely and if successful may be eligible for a rare tropical disease voucher program similar to the RPD voucher.

Management

Dr. Vuong Trieu, CEO

Dr. Trieu, an expert in pharmaceutical development, currently serves as CEO/Chairman of Mateon Therapeutics, Inc. Previously he was President and CEO of IgDraSol, Inc., developer of 2nd generation Abraxane® where he pioneered the 505(b)(2) regulatory pathway for approval of paclitaxel (Taxol®) nanomedicine through a single bioequivalence trial against Abraxane®. When IgDraSol merged with Sorrento Therapeutics, he became CSO and a Board member. He was on the Board of Directors of Cenomed, Inc., a company focusing on central nervous system (CNS) drug development. Before that he was Director of Pharmacology, Pharmacokinetics, and Biology at Abraxis BioScience, Inc. where he led the development of albumin encapsulated therapeutics along with building a high throughput platform for small molecules, mirRNA, kinases. Prior to that he was Group Leader at Applied Molecular Evolution, Inc. where he was developing Biobetters for Humira® and Enbrel®. Before that he was Director of Cardiovascular Biology at the Parker Hughes Institute. Dr. Trieu holds a PhD in Microbiology, BS in Microbiology and Botany. He is member of ENDO, ASCO, AACR, and other professional organizations. Dr. Trieu published widely in oncology, cardiovascular, and drug development. Dr. Trieu has over 100 patent applications and 39 issued US patents.

Seymour Fein, MD, Chief Medical Officer

Dr. Fein's professional activities have been focused on drug development research for over 35 years. He has been extensively involved in the successful development of numerous drugs, biologics and medical devices over this time leading to FDA approvals for over 20 drugs (New Drug Application (NDAs), Supplemental NDA (sNDAs), Biologic License Application (BLAs) and devices Premarket Approval (PMAs). Dr. Fein began his career at Hoffmann-La Roche Ltd. as a senior research physician and was responsible for a clinical development program that led to U.S. Food and Drug Administration (FDA) approval of recombinant interferon-alpha for cancer treatment. Dr. Fein was also the medical director of Bayer Healthcare Pharmaceuticals (U.S.) where he was responsible for therapeutic areas including gastroenterology, oncology, and cardiology. He later served as medical director for Rorer Group (now part of Sanofi) and Ohmeda, Inc. (now part of Baxter). Dr. Fein founded and has been managing partner of a clinical and regulatory consulting organization and has worked closely with the Division of Gastroenterology and Inborn Errors Products at the FDA. He has participated in the development of and FDA approval of numerous drug products in many therapeutic areas. Dr. Fein has successfully overseen entrepreneurial drug development leading to the FDA approval of two orphan drug products in the field of gastroenterology. Dr. Fein received his B.A. degree from the University of Pennsylvania and his M.D. degree with honors from New York Medical College. He completed a three-year residency in internal medicine at Dartmouth and a three-year fellowship in medical oncology and hematology at Harvard Medical School, where he served as an instructor of medicine during his final fellowship year. Dr. Fein is board-certified in both oncology and internal medicine.

Dr. Chullho Park, PhD, Chief Technology Officer

Dr. Park has strong biopharmaceutical R&D and leadership experience across diverse biotech and pharma settings. Extensive experience in monoclonal antibodies (mAb) process development. CEO and Founder of MabPrex, Inc. Led the pharmaceutical development of therapeutic antibodies as well as small molecule drugs. President of Pharmaceutical Development at IgDraSol, Inc. Led the chemistry, manufacturing and controls (CMC) development at IgDraSol bringing manufacturing of the drug product to US FDA standards.

Amit Shah, CFO

Amit Shah has served as a senior financial officer for a number of life science companies, including Chief Financial Officer at Marina Biotech, Inc., a publicly traded biotechnology company (2017 to 2018); Vice President of Finance & Accounting and Acting Chief Financial Officer at Insightra Medical Inc. (2014 to 2015); VP Finance and Acting Chief Financial Officer at IgDraSol Inc. (2013); Corporate Controller & Director of Finance at ISTA Pharmaceuticals (2010 to 2012); Corporate Controller at Spectrum Pharmaceuticals (2007 to 2010): and as Controller / Senior Manager Internal Audits at Caraco Pharmaceuticals Laboratories (2000 to 2007). In addition to his work with life sciences companies, Mr. Shah served as the Chief Financial Officer at Eagle Business Performance Services, a management consulting and business advisory firm (2018 through March 2019) and as a consultant and ultimately Senior Director of Finance – ERP, at Young's Market Company (2015 to 2017). Mr. Shah received a Bachelor's of Commerce degree from the University of Mumbai, and is an Associate Chartered Accountant from The Institute of Chartered Accountants of India. Mr. Shah is also an inactive CPA from Colorado, USA.

Anthony E. Maida III, Ph.D., M.A., M.B.A., Chief Clinical Officer

Dr. Maida's skill set includes the leading execution and oversight of finance, operations, research, clinical and scientific development, regulatory and manufacturing for the development of various oncology immunotherapies. Over the past 25 years Dr. Maida has served in a number of executive roles, including, Chairman, CEO, COO, CSO, CFO and business development.

Saran Saund, Chief Business Officer/ General Manager of AI Division at Mateon

Silicon Valley entrepreneur, Saran has been founder, CEO and GM at startups and public companies. Passionate about applying technology innovations to real world markets, he successfully founded an AI consortium to accelerate enterprise adoption of AI which engaged leading universities and technology vendors. A startup veteran, his track record includes senior leadership roles at companies that were acquired by leaders such as Marvell (MRVL) and Qualcomm (QCOM). His startup Cybercash (CYCH) had a successful IPO on NASDAQ. Saran started his career at Xerox PARC pushing 1's and 0's as a software engineer.

Burcak Beser, CTO of AI Division at Mateon

In the last 20 years, as a Silicon Valley technologist, Burcak has founded startups and established multi-site cross-organizational teams that led to designs and deployments of world-class systems. With 144 patent applications, of which 88 have been issued, Burcak's innovative solutions are connecting billions of people in the world together. Passionate about AI, he sees working on AI as an opportunity to solve problems that were considered insurmountable. Burcak spends most of his time building systems to make these solutions a reality. He finished his Masters in Artificial Intelligence in 1991 at METU, Ankara Turkey, winning the best thesis-of-the-year award and highest honors.

Figure 9 – Mateon Therapeutics, Inc. – Comp Table

Ticker	Company Name	Price Close	Market Cap $MM	EV $MM	Price to Book	2021 Sales Multiple	2021 EV / Sales
TEVA.TA	Teva Pharmaceutical Industries Ltd	9.56	10,585	35,378	1.09	0.63	2.11
ARNA.O	Arena Pharmaceuticals Inc	65.68	3,820	2,699	3.26	NMF	NMF
APLS.O	Apellis Pharmaceuticals Inc	45.43	3,441	3,066	32.49	53.27	47.48
SRRK.O	Scholar Rock Holding Corp	49.95	1,680	1,564	23.73	52.38	48.76
NGM.O	NGM Biopharmaceuticals Inc	23.85	1,646	1,358	5.94	17.04	14.06
CYDY.PK	Cytodyn Inc	2.48	1,413	1,426	NMF		
PLRX.O	Pliant Therapeutics Inc	28.50	1,011	717	3.37	NMF	NMF
ALBO.O	Albireo Pharma Inc	37.65	718	440	3.39	45.65	27.94
SPPI.O	Spectrum Pharmaceuticals Inc	4.77	696	498	4.13	12.35	8.83
RIGL.O	Rigel Pharmaceuticals Inc	3.06	517	464	10.15	5.17	4.64
	AVERAGE				9.73	26.64	21.97
MATN.PK	Mateon Therapeutics Inc	0.20	18	20	1.21	7.18	7.93
	Mateon discount to peers				-88%	-73%	-64%

Source: Litchfield Hills Research LLC and Refinitiv Eikon

Figure 10 – Mateon Therapeutics, Inc. – Income Statement ($000)

December ending year		2019A			2019A		2020E			2020E		2021E			2021E		2022E		
	Q1A	Q2A	Q3A	Q4A	Year	Q1A	Q2A	Q3A	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Year	Q1E	Q2E	Q3E	Q4E
($000)																			
Total revenue	$0	$0	$0	$0	$0	$341	$1,400	$0	$0	$1,741	$0	$500	$1,000	$1,000	$2,500	$2,000	$2,000	$3,000	$4,000
Cost of Goods	0	0	0	0	0	0	0	0	0	0	0	350	500	500	1,350	400	400	600	800
Gross Profit	**0**	**0**	**0**	**0**	**0**	**341**	**1,400**	**0**	**0**	**1,741**	**0**	**150**	**500**	**500**	**1,150**	**1,600**	**1,600**	**2,400**	**3,200**
SG&A	405	364	344	260	1,372	312	482	936	1,000	2,730	1,000	1,000	1,000	1,000	4,000	1,000	1,000	1,000	1,000
R&D	571	797	587	983	2,939	2,678	904	680	700	4,962	700	700	700	700	2,800	700	700	700	700
Total Operating Expenses	976	1,161	931	1,243	4,311	2,990	1,386	1,616	1,700	7,692	1,700	1,700	1,700	1,700	6,800	1,700	1,700	1,700	1,700
Operating Income	**(976)**	**(1,161)**	**(931)**	**(1,243)**	**(4,311)**	**(2,649)**	**14**	**(1,616)**	**(1,700)**	**(5,951)**	**(1,700)**	**(1,550)**	**(1,200)**	**(1,200)**	**(5,650)**	**(100)**	**(100)**	**700**	**1,500**
Total Other Items	0	(28)	(60)	(2,239)	(2,327)	(2,009)	568	(370)	(100)	(1,911)	100	500	1,000	1,000	2,600	100	500	1,000	1,000
Pre-Tax Income	**(976)**	**(1,189)**	**(991)**	**(3,482)**	**(6,638)**	**(4,658)**	**582**	**(1,987)**	**(1,800)**	**(7,862)**	**(1,600)**	**(1,050)**	**(200)**	**(200)**	**(3,050)**	**0**	**400**	**1,700**	**2,500**
Taxes (benefit)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income (loss)	**($976)**	**($1,189)**	**($991)**	**($3,482)**	**($6,638)**	**($4,658)**	**$582**	**($1,987)**	**($1,800)**	**($7,862)**	**($1,600)**	**($1,050)**	**($200)**	**($200)**	**($3,050)**	**$0**	**$400**	**$1,700**	**$2,500**
EPS, as reported	**($0.14)**	**($0.02)**	**($0.01)**	**($0.04)**	**($0.11)**	**($0.05)**	**$0.01**	**($0.02)**	**($0.02)**	**($0.09)**	**($0.02)**	**($0.01)**	**($0.00)**	**($0.00)**	**($0.03)**	**$0.00**	**$0.00**	**$0.02**	**$0.03**
Diluted Shares Outstanding	6,926	65,384	74,527	80,000	59,958	84,917	94,737	88,965	89,000	89,405	90,000	90,000	90,000	90,000	90,000	90,000	93,000	93,000	93,000

Source: Company reports and Litchfield Hills Research LLC

Figure 11 – Mateon Therapeutics, Inc. – Balance Sheet ($000)

December ending year	FY2022E	FY2021E	FY2020E	FY2019
Balance sheet				
Current Assets				
Cash and S.T.I.	$9,800	$485	$167	$82
Accounts receivable	500	200	20	150
Inventories	0	0	0	0
Other assets	500	100	88	41
Total Current Assets	**10,800**	**785**	**275**	**273**
Intangibles	800	840	886	925
Goodwill				
Other non-current assets	2,000	1,500	1,190	1,425
Total Assets	**$34,663**	**$24,188**	**$23,414**	**$23,685**
Current Liabilities				
Accounts payable and accrued exp.	$10,000	$5,000	$3,500	$2,657
Contingent consideration	5,200	4,825	4,625	3,586
Other current liabilities	2,000	1,500	1,200	541
Total current liabilities	**17,200**	**11,325**	**9,325**	**6,783**
Conv. and Long Term Debt	0	0	0	0
Other non-current	0	0	0	0
Total Liabilities	**17,200**	**11,325**	**9,325**	**6,783**
Stockholders' Equity				
Preferred stock	3	3	3	3
Common stock	900	900	896	841
Additional paid-in-capital	35,000	35,000	32,200	28,186
Retained earnings	(18,440)	(23,040)	(19,990)	(12,127)
Cum. trans. adj. and treasury stock	0	0	980	0
Total stockholders' equity	17,463	12,863	14,089	16,902
Total Liabilities and equity	**$34,663**	**$24,188**	**$23,414**	**$23,685**

Source: Company reports and Litchfield Hills Research LLC

Figure 12 – Mateon Therapeutics, Inc. – Cash Flow ($000)

	2022E	2021E	2020E	2019A
Net Income	$4,600.00	($3,050.0)	($7,862.4)	($6,638.0)
Accounts receivable	(300.00)	(180.25)	130.00	(149.75)
Inventories	0.00	0.00	0.00	0.00
Other assets	(400.00)	(11.99)	(46.72)	(41.28)
Intangibles	40.00	46.05	38.53	51.42
Goodwill	0.00	(0.54)	0.00	(21,062.46)
Other non-current	(500.00)	(309.90)	234.66	344.55
Accounts payable and accrued exp.	5,000.00	1,500.00	843.34	2,656.67
Contingent consideration	375.00	0.00	0.00	2,625.00
Convertible debt	0.00	200.00	1,039.08	960.92
Other current liabilities	500.00	300.00	659.48	257.49
Conv. and Long Term Debt	0.00	0.00	0.00	0.00
Other non-current	0.00	0.00	0.00	0.00
Preferred stock	0.00	0.02	0.00	2.78
Common stock	0.00	3.98	55.32	772.26
Additional paid-in-capital	0.00	2,800.00	4,014.40	20,299.00
Non-controling interest	0.00	(979.54)	979.54	0.00
Other				0.88
Total Cash Flow	$9,315.00	$317.81	$85.22	$79.47

Source: Company reports and Litchfield Hills Research LLC

Disclosures:

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