

August 24, 2021

APTORUM GROUP LTD. (NASDAQGM/EURONEXT PARIS: APM)

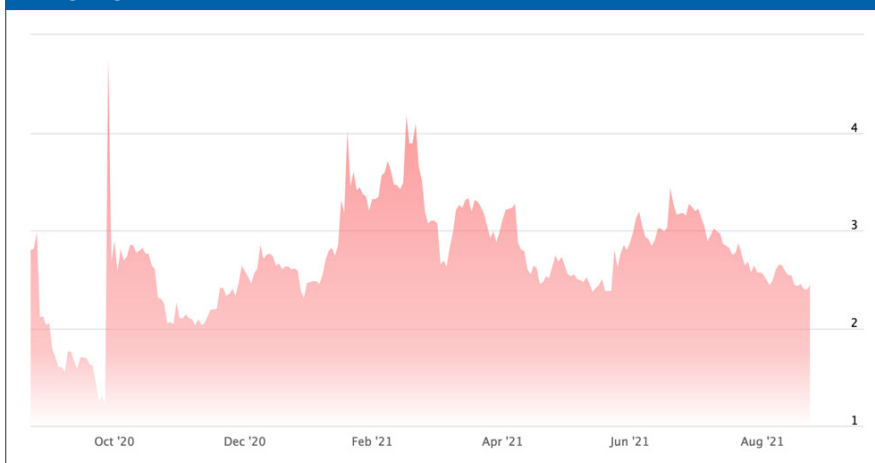
Aptorum Group Limited is a clinical stage biopharmaceutical company focused on the development of novel therapeutics and diagnostic technologies for unmet medical needs.

COMPANY HIGHLIGHTS

- * APM: Addressing Unmet Medical Needs
- * In our view, Aptorum has compiled a deep pipeline of therapeutic and non-therapeutic assets that have the potential to drive significant value. We also view the company's proprietary drug discovery and diagnostic technology platforms as long-term value drivers.
- * We are encouraged by the pipeline's recent advancement into a Phase 1 clinical study, as lead candidate ALS-4 for antibacterial infections began dosing in March 2021, and there have been favorable safety results from its initial cohorts across the second quarter of 2021. In addition, we anticipate that Aptorum will be opening an IND to commence clinical studies for SACT-1, a repurposed drug for the treatment of neuroblastoma, during the second half of 2021.
- * In September 2020, Aptorum Innovations, one of Aptorum's subsidiaries, entered into an exclusive license agreement and will co-develop a novel molecular-based rapid pathogen identification and detection diagnostics (RPIDD) technology, currently in the clinical validation stage, with Accelerate Technologies Pte. Ltd.'s, the commercialization arm of the Singapore Agency for Science, Technology and Research (A*STAR). We see potential for this technology to disrupt the diagnostics market for infectious diseases by more accurately and cost-effectively detecting and identifying a wide range of pathogens.
- * As of December 31, 2020, Aptorum had \$3.6 million in cash/restricted cash, and \$28.4 million in marketable securities. Combined with \$4 million in proceeds from May 2021 private placement, and access to up to an aggregate of \$30 million from undrawn lines of credit and an "at the market" equity sale arrangement, Aptorum seemingly has sufficient resources to operate into 2022.
- * Our sum-of-the-parts NPV valuation for the company's lead programs and IP and technology assets yields a fair value estimate of \$14 per share, far above current levels.

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PRICE CHART



KEY STATISTICS

Key Stock Statistics

Recent price (8/19/21)	\$2.40
52 week high/low	\$14.23-\$1.16
Shares outstanding (M)	34.2
Market cap (M)	\$82.1
Dividend	Nil
Yield	Nil

Sector Overview

Sector	Healthcare
Sector % of S&P 500	13.3%

Financials (\$M)

Cash & Mkt Securities	31.9
Debt	2.7
Working Capital (\$M)	29.8
Current Ratio	8.7
Total Debt/Equity (%)	6.0%
Payout ratio	NM
Revenue (M) TTM	0.9
Net Income (M) TTM	6.3
Net Margin	NM

Risk

Beta	-0.2
Inst. ownership	2%

Valuation

P/E forward EPS	NA
Price/Sales (TTM)	NA
Price/Book (TTM)	2.0

Top Holders

Geode Capital Management
Redmond Asset Management
Jane Street Group

Management

CEO	Mr. Ian Huen
CFO	Ms. Sabrina Khan
COO	Dr. Angel Ng
Company website	www.aptorumgroup.com

COMPANY SPONSORED REPORT. SEE LAST PAGE FOR DISCLOSURES.

INVESTMENT THESIS

Aptorum Group Limited is a clinical stage biopharmaceutical company dedicated to the discovery, development and commercializing of therapeutic and non-therapeutic assets to treat diseases with unmet medical needs, particularly in oncology (including orphan oncology indications) and infectious diseases. In mid-2018, the company launched an outpatient specialist clinic in Hong Kong.

Aptorum was incorporated in 2010. In early 2017, the company transitioned from a management-owned healthcare investment fund to a holding company with operating subsidiaries. It also began in-licensing assets to build a pipeline of internal drug and diagnostic product candidates.

Over the past four years, Aptorum has built a diverse portfolio of assets, both therapeutic and non-therapeutic in nature. Its pipeline features 14 projects in development, among which, three have emerged as “lead programs.” First is ALS-4, which targets bacterial infections using an anti-virulence (non-bactericidal) approach; second is SACT-1, a repurposed drug for the treatment of a rare cancer in pediatric patients, neuroblastoma, that resulted from computational and high-throughput screening of approved drugs against targets for over 7,000 potential orphan diseases; and third is the Rapid Pathogen Identification and Detection Diagnostics (“RPIDD”) technology, a rapid, accurate, cost-effective and untargeted method to identify and detect existing or emerging unknown pathogens through liquid biopsy. Aptorum has also planned to commercialize NativusWell®, a natural supplement for the relief of menopausal symptoms in the second half of 2021.

Aptorum’s lead candidate, ALS-4, is a first-in-class orally administered small molecule drug aimed at treating bacterial infections caused by *Staphylococcus aureus*, including Methicillin-resistant *Staphylococcus aureus* (MRSA), a difficult-to-treat pathogen, often referred to as a “super bug. In the U.S. alone, MRSA is associated with more than 100,000 hospitalizations and approximately 19,000 deaths annually, according to the company. We estimate that MRSA drugs represent a more-than \$3 billion global market opportunity. Many marketed antibiotics have experienced increasing rates of resistance from these pathogens. As such, we expect demand for new treatments to continue, and for the overall market to expand as new, orally active agents such as ALS-4 enable administration in outpatient and prophylactic market settings.

During 2020, Aptorum announced robust pre-clinical data in rodents that we believe represents potential differentiating characteristics of ALS-4 over currently available agents, if replicated in human clinical studies. Notably, ALS-4 is shown to inhibit production of staphyloxanthin, a golden pigment that covers the bacteria and is believed to be the key in enabling the bacteria to defend against the human body’s immune responses, in 11 strains of *S. aureus*. Since ALS-4 is not a bactericidal agent (non-antibiotic), the drug would likely not experience drug resistance concerns that are common among antibiotics due to selection pressure.

In an in vivo study employing a rodent-lethal MRSA bacteremia model, ALS-4 brought about a statistically significant improvement in survival compared with the control (vehicle) after seven-day oral dosing. In another study involving delayed treatment (treatment started on day 14 after infection) in a non-lethal rodent bacteremia model, oral administration of ALS-4 reduced the bacterial load in the kidneys by 99.5% over the

control after seven-day treatment. In both cases, the results were highly statistically significant. In addition, studies have shown that ALS-4 would not impact the minimum inhibitory concentration (MIC) of a leading antibiotic used in MRSA infection, namely, vancomycin. We believe this suggests the potential for co-administration in order to increase the efficacy of standard of care regimens.

In March 2021, Aptorum commenced patient dosing in a Phase 1 clinical study, testing ALS-4’s single-ascending dose (up to 48 subjects) and multiple-ascending dose (up to 24 subjects) for safety, tolerability and pharmacokinetics in healthy volunteers. To date, ALS-4 has shown favorable safety in four single-dose cohorts, in which dosing increased from 25 mg to 200 mg, with no dropouts from the study or serious adverse events reported. In addition, changes to vital signs, electrocardiogram (ECG), and other measures remained clinically immaterial compared with baseline. As such, Aptorum plans to proceed to multiple ascending dosing during the third quarter of 2021.

We see potential for ALS-4 to advance rapidly through clinical development, amid an increasingly favorable regulatory backdrop for anti-bacterial drug candidates, particularly for candidates that can foster a shift from IV to oral administration. In late 2016, the U.S. Congress addressed declines in antibacterial drug research and increases in serious antibacterial drug-resistant infections by establishing the Limited Population Pathway for Antibiotic and Antifungal Drugs (LPAD), as part of the Twenty-First Century Cures Act. The LPAD enhances the FDA’s ability to approve antibacterial or antifungal drugs to help treat serious or life-threatening infections in patients with unmet needs. In our view, development programs for drugs eligible for approval under the LPAD pathway may follow the streamlined approaches described in the Act’s guidance for unmet medical needs and could involve smaller, shorter, or fewer clinical trials. As such, we think that ALS-4 could potentially secure approval under the LPAD pathway (upon approval from the U.S. FDA) for commercialization quicker than typical drug development timelines.

Despite the unmet need, and despite industry leaders including Pfizer, Merck and Roivant making major acquisitions in the antibacterial space, many other leading firms have abandoned antibiotic development efforts. This is due to potentially challenging returns on investment because of the relatively lower price points for antibiotic agents compared with many other disease categories. We are encouraged by the background of ALS-4’s team, as its inventor and principal investigator won the Innovation Academy Award at the Fourth International Conference on Prevention & Infection Control (ICPIC 2017).

In April 2019, Aptorum established its Smart Pharma subsidiary, which operates a novel computational platform designed to enable repurposed drug discovery, modeling and validation of targets for orphan diseases or unmet medical needs. Despite favorable regulatory treatment and economic pricing incentives, a large majority of more than 7,000 identified rare diseases remain without approved treatments. Repurposing drugs with validated efficacy and/or safety profiles holds the promise of significantly reducing time and cost for drug development. Aptorum’s focus areas for this platform include oncology, autoimmune, metabolic and genetic diseases.

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PEER COMPARISON

Company	Ticker	Recent Price (\$)	52-Week High (\$)	52-Week Low (\$)	Mkt. Cap (\$MIL)	1-yr Price Change (%)	1-yr Rev Growth (%)	1 YR EPS Growth (%)	P/E Ratio	Beta	Yield (%)
APTORUM GROUP LTD	APM	2.40	14.23	1.16	82	-16	70	NA	NA	-0.2	NA
HUTCHMED (CHINA) LTD	HCM	38.36	43.94	23.67	6756	14	11	NA	NA	0.67	NA
WAVE LIFE SCIENCES LTD	WVE	5.85	19.98	4.82	285	-48	26	NA	NA	0.39	NA
ZAI LAB LTD	ZLAB	133.26	193.54	72.42	12403	67	277	NA	NA	1.11	NA

Since launch, the Smart-ACT® (Accelerated Commercialization of Therapeutics) platform has conducted in silico screening of over 2,600 approved small-molecule drugs and identified and selected its lead candidate, SACT-1, for the treatment of neuroblastoma, a rare, aggressive cancer in nerve tissue found mostly in children. Patients with high-risk neuroblastoma face a less-than 50% long-term survival rate, according to the American Cancer Society, and account for a disproportionate percentage of pediatric cancer-related deaths. In addition, in vitro screening of SACT-1 against over 300 cancer cell lines has identified additional cancer types such as colorectal cancer, leukemia and lymphoma, among others, as areas of potential patient benefit.

SACT-1 has been reformulated to address the needs of pediatric neuroblastoma patients younger than five years of age, which also provides additional IP protection. In vitro studies have shown the drug to be effective and to have a promising safety profile when used against numerous neuroblastoma cell lines, including those associated with the highest-risk patient groups. Importantly, the combination of SACT-1 and traditional chemotherapy has shown synergistic properties in vitro, which could yield potential efficacy enhancement or dose reduction of chemotherapy. In vivo animal efficacy studies have also shown the beneficial effect of the drug in combination with standard chemotherapy.

During the first half of 2021, Aptorum completed a pre-IND meeting with the U.S. FDA, and expects to open an IND in the second half of 2021 to commence clinical studies shortly thereafter. We view positively its plan to file a NDA under the 505(b)(2) pathway, which would allow certain drugs to acquire regulatory approval using existing data (which can reduce development time and cost).

Besides having an established pre-existing safety profile, we think that SACT-1 also is well positioned to garner favorable regulatory status from the U.S. FDA and equivalent global jurisdictions, as a potential treatment for a rare form of cancer that focuses on a pediatric population -- two areas that historically have been granted accelerated pathways for approval by global regulatory agencies. As such, we think SACT-1 could establish a solid presence in a global market that we estimate to be approximately \$3 billion.

Further, we believe that the Smart-ACT® platform can generate a substantial number of candidates to enhance the value of Aptorum's pipeline. Aptorum has also selected two additional projects under its Smart-ACT® platform that have not yet been disclosed. Aptorum has stated that it expects to target five to ten new drug candidates annually through the Smart-ACT® platform. We think that would represent robust opportunities for out-licensing and the infusion of significant non-dilutive capital over time.

Aptorum Innovation, one of Aptorum's subsidiaries, has partnered with the Singapore Agency for Science, Technology and Research (A*STAR), in September 2020, to co-develop the former's novel molecular-based rapid pathogen identification and detection diagnostics (RPIDD) technology. The collaboration aims to utilize liquid biopsy technologies to accurately, but cost-effectively, identify and detect existing or emerging unknown pathogens, including DNA/RNA-based viruses such as coronavirus, antibiotic-resistant bacteria, and fungi.

Aptorum Innovations' RPIDD technology is a scalable service that can be integrated into hospitals and detect all types of pathogens. This could help overcome a key drawback in current laboratory testing, which is that up to 30% of current testing is unable to determine the etiology of certain infectious diseases -- limiting the ability for clinicians to prescribe appropriate medications.

RPIDD's proprietary solution, which can also detect mutations that cause antibiotic resistance, offers other potential benefits as well. These include a turnaround time of less than 24-hours, offering valuable information that can advance the rapid administration of an appropriate antimicrobial therapy.

We are encouraged by the rapid progress for the platform, which is currently in the clinical validation stage. In December 2020, Aptorum Innovations entered into an evaluation agreement with industry leader Illumina, under which Aptorum Innovations will evaluate Illumina's sequencing technology for compatibility with the RPIDD technology. The evaluation will also analyze the accuracy, cost and turnaround time on Aptorum's platform. Given Illumina's status as one of the leading sequencing participants in the diagnostics industry, we think that the evaluation, should it advance to a formal collaboration, could meaningfully validate the RPIDD platform and accelerate its time to commercialization.

In our view, Aptorum is uniquely positioned to create value and ultimately attract sub-licensing interest from this collaboration, given the company's expertise and focus on infectious diseases. Aptorum has further strengthened its presence in this field by joining the Biotech companies in Europe combating Antimicrobial Resistance Alliance ("BEAM Alliance"), a network of European companies involved in developing innovative products and kits to tackle antimicrobial resistance ("AMR") across multiple therapeutic modalities.

In recent years, the global market for liquid biopsy diagnostics, which we estimate to be over \$10 billion, has generated significant acquisition activity. Notable recent acquisitions in the space include Illumina's \$8 billion purchase of Grail, and Exact Sciences' \$2 billion acquisition of Thrive. Despite these transactions, the industry remains fragmented, and we expect further consolidation.

As of April 2021, Aptorum is developing 14 projects covering therapeutic assets, diagnostic assets, natural supplements, and medical-device projects, in a broad range of areas across infectious diseases, cancers (including rare oncology indications), neurology, gastroenterology, metabolic disorders, and women's health. Among these are nine exclusively licensed projects (including Lead Project ALS-4, which is licensed exclusively from the University of Hong Kong, and RPIDD, which is licensed exclusively from A*STAR) and five proprietary projects developed by company scientists (including Lead Project SACT-1).

We are encouraged by the evolution and expansion of Aptorum's pipeline and its migration towards markets with attractive regulatory and market dynamics. Over the past few years, Aptorum has maintained the needed flexibility to reprioritize certain projects to lead status, which we attribute to its Scientific Advisory Board. Among non-core projects, Aptorum's pipeline features candidates for influenza, bacterial infections, COVID-19, obesity and endometriosis, among others. Recently, Aptorum entered into a material transfer and option agreement with Yale University to evaluate a group of preclinical stage novel immunomodulators that has potential to represent first-in-class opportunities in autoimmune and oncology diseases, and possibly infectious diseases. The latter two areas are notable, in our view, as they align well with the company's current pipeline focus. Aptorum has obtained an exclusive option to in-license these novel compounds, and would assume development costs, if exercised.

Aptorum has also taken steps to diversify operations to include several revenue-generating units in a non-therapeutic segment. The company plans to launch commercialization of NativusWell®, a natural supplement for the relief of menopausal symptoms, which affects more than one billion women in multiple jurisdictions. This will represent a global market of over \$50 billion by 2025, growing at a 16% compounded annual growth rate, according to Grandview Research. As females approach menopause, their ovaries reduce the production of estrogen leading to common symptoms such as hot flashes, night sweats, and headaches. NativusWell® consists of Chinese Yam extract containing DOI, a bioactive ingredient that has been shown preclinically to significantly increase estrogen production. DOI has also been shown in a preclinical model to increase bone mineral density, bone volume fraction, and trabecular thickness, which helps prevent osteoporosis, a common condition associated with menopause. NativusWell® is being launched initially in Hong Kong in 2021, and plans

to be followed by registration in the United Kingdom, Europe and other Asian countries.

The company also has been operating an outpatient specialist clinic under the name Talem Medical since June 2018. The initial rollout has been modest, though Aptorum strategically envisions the clinic supporting its own and other company's clinical trials in the future.

RECENT DEVELOPMENTS

In 2020, Aptorum's stock declined by 84% compared with the S&P 500's 16% increase, which we attribute to a recalibration of market risk for preclinical companies with limited cash runways. Year-to-date in 2021, the stock is unchanged, compared with an 18% gain for the S&P 500.

In May 2021, Aptorum entered into an agreement with Exeltis, under which Exeltis will develop Aptorum's novel, preclinical asset targeting the treatment of women's health and gynecological conditions, including endometriosis, in the European Union and Latin America. Aptorum retained development rights in the rest of the world.

In April 2021, Aptorum reported net income of \$6.3 million, or EPS of \$0.20, for the full-year of 2020. This compared with a loss of \$18.7 million, or \$0.64 loss per share, for the same period in 2019. The results were driven by a net gain on investments in marketable securities of \$25.2 million. If excluded, the net loss per share was \$0.61.

In April 2021, Aptorum entered into a material transfer and license option agreement with Yale University to evaluate a group of preclinical stage novel immunomodulators that could represent first-in-class opportunities in treatment of autoimmune and oncology diseases, among other indications.

In March 2021, Aptorum dosed its first subject in a Phase 1 clinical trial for lead candidate ALS-4, for bacterial infection. The company subsequently has reported favorable safety results for the initial four cohorts.

In September 2020, Aptorum through Aptorum Innovations partner with Singapore's Agency for Science, Technology and Research (A*STAR). It will focus on infectious diseases and apply liquid biopsy diagnostics technologies to co-develop the latter's novel molecular-based rapid pathogen identification and detection diagnostics (RPIDD) technology.

In September 2020, Aptorum joined BEAM (Biotech companies in Europe combating AntiMicrobial resistance) as a full member.

In July 2020, the company expanded its global strategic presence by listing its stock on the Euronext Paris exchange, becoming the first Nasdaq-listed biopharmaceutical company admitted to trade on Euronext Paris.

EARNINGS & GROWTH ANALYSIS

We forecast revenues of \$1.3 million in 2021 and \$1.8 million in 2022. We expect revenues to come from the nascent commercial launch of the NativusWell® supplement, supported by the outpatient AML clinic. We see opportunity for Aptorum to generate licensing revenues should it enter into external collaborations on its pipeline candidates.

In our view, R&D investments are likely to increase in 2021 and 2022, as Aptorum advances its lead programs into human clinical trials. We forecast R&D expenses of \$16.0 million in 2021 and \$21 million in 2022. We are encouraged by the value creation from its R&D investments to date, as its SmartPharm and Aptorum Innovations subsidiaries have yielded compelling product candidates that Aptorum has accelerated into leading positions within its product portfolio.

In all, we anticipate operating expenses of approximately \$24.3 million in 2021 and \$30.0 million in 2022.

We forecast net losses of \$0.63 per share in 2021 and \$0.70 per share in 2022.

FINANCIAL STRENGTH & DIVIDEND

Our financial strength rating for Aptorum is Medium. As of December 31, 2020, Aptorum had \$3.6 million in cash and restricted cash. However, the company had \$28.4 million in marketable securities, and access to up to \$15 million under a debt-financing line of credit. At the end of the first quarter, the company entered into an "at the market" equity sale agreement for up to \$15 million with H.C. Wainwright. In May 2021, Aptorum completed a private placement with Jurchen Investments, a wholly owned investment company of Chief Executive Officer Ian Huen, which yielded proceeds of \$4 million, from the sale of 1.39 million common shares, purchased at a 10% premium to the prevailing stock price. As such, we view Aptorum as sufficiently funded into the second half of 2022, but expect the company to need to raise significant additional capital to fund operations until its pipeline candidates are commercialized.

We expect Aptorum to pursue partnerships for certain earlier-stage, non-lead programs across its pipeline, which we think could provide some non-dilutive capital and moderate its cash burn over time. An example of this is its May 2021 license deal for its novel preclinical candidate targeting women's gynecological conditions to Exeltis, under which Exeltis will assume development costs and risk for this early-stage program. A key potential indication for this candidate is endometriosis, which we view as representing a roughly \$2 billion global opportunity.

In 2020, Aptorum's net cash used by operations was \$15.9 million, which compares with \$13.4 million used in 2019. However, net cash outflows totaled \$1.7 million, compared with \$20.8 million in 2019. Former-period results were boosted by proceeds from equity offerings completed in February and October 2020, which yielded gross proceeds of \$19 million.

As of December 31, 2020, Aptorum had a current ratio of 8.7 and working capital of 29.8 million. Total equity attributable to the shareholders of Aptorum was approximately \$41.8 million, up from \$16.4 million at the end of 2019.

Aptorum does not pay a dividend, and we do not expect one to be initiated in the near term.

MANAGEMENT & RISKS

Mr. Ian Huen is the founder, CEO and executive director of Aptorum Group. Mr. Huen has more than 18 years of global asset management experience and previously covered the U.S. healthcare sector as an equity research analyst at Janus Henderson Group plc.

Aptorum's board has seven members, including four independent directors. We view this majority of independent directors favorably and note that Aptorum has assigned only independent directors to the key audit, compensation and nominating, and corporate governance committees.

Risks include Aptorum's status as a "controlled company," as CEO Huen and his affiliates have a majority of the voting power. Class B ordinary shares carry a 10-to-1 voting power ratio over Class A shares, and Class B holders, including Aptorum's executive officers and affiliates, hold about 78% of the company's voting power, with 69% for CEO Huen alone.

Other risks include standard risks in drug development, such as establishing efficacy and safety and maintaining a competitive market position for its lead products. Lastly, Aptorum will likely need to raise capital in 2022 to continue to fund its advancing pipeline, and the uncertainty of doing so on favorable terms increases the risk of equity dilution.

COMPANY DESCRIPTION

Aptorum Group Ltd., a clinical stage biopharmaceutical company dedicated to the discovery, development and commercializing of therapeutic assets to treat diseases with unmet medical needs, particularly in oncology (including orphan oncology indications) and infectious diseases. Aptorum was incorporated in 2010 and went public in December 2018.

VALUATION

We think that Aptom's therapeutic programs that address unmet medical needs are more likely to secure orphan-drug or fast-track status from global regulatory bodies. As such, we expect Aptom's valuation to benefit over time from its prospects for a) smaller clinical trials required for orphan indications, and b) favorable regulatory pathways for areas of significant need.

APM has had a weak stock performance, which we attribute to a recalibration of market risk for early development-stage companies with limited capital runway and weakness in biotechnology industry indices. Still, we expect that the reporting of clinical stage data will be a key share-price catalyst that should expand access to capital on favorable terms. Further, we believe that the platform nature of its Smart-ACT® and, more recently, Aptom Innovations' RPIDD, should provide out-licensing opportunities over time, which would help to limit dilution to its shareholders. We continue to believe the company offers a compelling long-term growth opportunity, upon successful execution of its business plan, which seeks to advance its portfolio of assets through the achievement of mid-stage proof-of-concept.

Although the current valuation is markedly below our fair value estimate, we note that the APM shares traded as high as \$33 in mid-2019, and as high as \$18 early in 2020. In addition, the company has advanced its pipeline and innovative technology platforms, despite the COVID-19 pandemic. As such, we expect the valuation gap to narrow over time.

Applying a sum-of-the-parts NPV valuation for its lead programs and IP and technology assets, we arrive at a fair value of \$14 per share, well above current levels. Our valuation model applies a seven-times multiple to peak sales, and assumes peak annual revenues of \$800 million for ALS-4 for bacterial infections including MSRA, and 10 years to reach peak sales. This is discounted at 40% annually (\$5 per share). The model also assumes \$1.2 billion in peak sales for SACT-1 for neuroblastoma, assuming 11 years to reach peak sales, and discounted at 45% annually (\$5); The balance (of \$4) is ascribed to the company's IP and technology assets, recently bolstered by the addition of the Aptom Innovations subsidiary to its technology portfolio. Our estimates assume a share count of 38 million at the end of 2021, up from approximately 34 million at the end of 2020.

Steve Silver

INCOME STATEMENT

Growth Analysis (\$MIL)	2018	2019	2020	1H 2021E	2H 2021E	2021E	1H 2022E	2H 2022E	2022E
Revenue	0.4	0.5	0.9	0.6	0.7	1.3	0.8	1.0	1.8
Gross Profit	0.1	-0.3	-1.0			0.1			0.1
G&A	4.9	7.4	4.9			5.1			5.6
R&D	3.1	6.9	11.6			16.0			21.0
Operating Income	-10.3	-18.2	-21.2			-24.3			-30.0
Interest Expense	-4.5	-3.7	-0.2			-0.3			-0.3
Pretax Income	NA	NA	NA			NA			NA
Tax Rate (%)	NA	NA	NA			NA			NA
Net income	-15.1	-20.1	6.3			-22.4			-27.3
Diluted Shares	27.9	29.0	31.5			36.0			39.0
EPS	-0.53	-0.64	0.20	-0.30	-0.32	-0.62	-0.33	-0.37	-0.70
Dividend	NA	NA	NA			NA			NA
Growth Rates (%)									
Revenue	NA	30	82			43			38
Operating Income	NA	NA	NA			NA			NA
Net Income	NA	NA	NA			NA			NA
EPS	NA	NA	NA			NA			NA
Valuation Analysis									
Price (\$): High	15.85	33.28	18.25			NA			NA
Price (\$): Low	13.25	11.80	1.16			NA			NA
PE: High	NA	NA	NA			NA			NA
PE: Low	NA	NA	NA			NA			NA
PS: High	NA	NA	NA			NA			NA
PS: Low	NA	NA	NA			NA			NA
Yield: High	NA	NA	NA			NA			NA
Yield: Low	NA	NA	NA			NA			NA
Financial & Risk Analysis (\$MIL)									
Cash	26.1	5.3	32.0			NA			NA
Working Capital	16.5	5.3	29.8			NA			NA
Current Ratio	2.4	3.0	8.7			NA			NA
LTDebt/Equity (%)	0	43	7			NA			NA
Total Debt/Equity (%)	31	44	7			NA			NA
Ratio Analysis									
Gross Profit Margin	NA	NA	NA			NA			NA
Operating Margin	NA	NA	NA			NA			NA
Net Margin	NA	NA	NA			NA			NA
Return on Assets (%)	NA	NA	NA			NA			NA
Return on Equity (%)	NA	NA	NA			NA			NA
Op Inc/Int Exp	NA	NA	NA			NA			NA
Div Payout	NA	NA	NA			NA			NA

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