



Aptorum Group Ltd. (NASDAQ: APM)

April 28, 2020
Recent Price: \$3.40

Market Data

| | |
|--------------------------------|---------------|
| Fiscal Year | December |
| Industry | Biotechnology |
| Market Cap | \$103.3M |
| Shares Outstanding | 30.4M |
| Float | 9.3M |
| Insider Ownership ⁴ | 69.0% |
| Avg. Volume (90-day) | 31,865 |
| Staff, Consultants | 70+ |
| Key Target Markets | US, China, EU |

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As of April 28, 2020

Financial Snapshot

Cash, Equity and Shareholder (USD)

| | |
|---------------------------------------|--------|
| Pre-IPO 2016-2018 capital raised | \$37m |
| IPO Dec 2018 capital raised | \$12m |
| Feb 2020 Secondary Offering | \$10m |
| March 15, 2020 Cash + Credit Facility | \$20M+ |

As of March 15, 2020

Financials (USD)

| | |
|----------------------|---------|
| Revenue (ttm) | \$0.5M |
| Cash (mrq) | \$5.3M |
| Total Assets (mrq) | \$24.0M |
| Long-Term Debt (mrq) | \$6.4M |
| Total Equity (mrq) | \$14.9M |

As of December 31, 2019

aptorumgroup.com

Company Overview

Aptorum Group Limited (NASDAQ: APM) is a biopharmaceutical company dedicated to developing and commercializing novel therapeutics to tackle unmet medical needs. Aptorum's current drug pipeline includes indications in orphan diseases, infectious diseases, and metabolic diseases. In 2020, the company plans to advance two candidates (SACT-1 and ALS-4) to clinical trials, targeting Neuroblastoma and infections caused by *Staphylococcus aureus*, including Methicillin-resistant *Staphylococcus aureus* (MRSA). Aptorum's Smart-ACT™ platform is designed to advance an average of three drug candidates for orphan diseases to clinical trials every 12-18 months. Further, the company is in the process of launching a dietary supplement made with extracted Chinese yam powder containing a bioactive ingredient "DOI" for women undergoing menopause and experiencing menopausal symptoms such as osteoporosis. Targeting a global woman's health supplement market that is expected to reach \$5.7 billion in 2025¹, Aptorum is expected to generate positive revenue in the next 12 months with this product.

Project Portfolio Highlights

| Projects | Indication | Computational discovery | In vitro validation | Existing PhI/II clinical safety data | In vivo validation | IND preparation & submission | PhI/II with limited population |
|----------------------|-------------------------------------|-------------------------|---------------------|--------------------------------------|--------------------|------------------------------|--------------------------------|
| SACT's series | | | | | | | |
| SACT-1 | Neuroblastoma | [Progress bar] | | | | | |
| SACT-2 | To be disclosed | [Progress bar] | | | | | |
| SACT-3 | To be disclosed | [Progress bar] | | | | | |
| SACT-COV19 | Coronavirus Disease 2019 (COVID-19) | [Progress bar] | | | | | |

| Projects | Candidate / Modality | Indication | Development Stage | | | | | |
|-------------------------|--|---|-----------------------------------|----------------|-------------------|--------------|---------|---------|
| | | | Target Identification & Selection | Lead Discovery | Lead Optimization | IND-Enabling | Phase 1 | Phase 2 |
| Acticle's Series | | | | | | | | |
| ALS-4 | Small molecule | Treatment of bacterial infections caused by <i>Staphylococcus aureus</i> including MRSA | [Progress bar] | | | | | |
| ALS-1 | Small molecule | Treatment of viral infections caused by Influenza virus A | [Progress bar] | | | | | |
| ALS-2 | Small molecule | Treatment of bacterial infections caused by <i>Staphylococcus aureus</i> including MRSA | [Progress bar] | | | | | |
| ALS-3 | Small molecule | Reviving existing antibiotics to overcome drug Resistance | [Progress bar] | | | | | |
| Claves' Series | | | | | | | | |
| CLS-1 | Macromolecule | Treatment of Obesity | [Progress bar] | | | | | |
| CLS-2 | To be disclosed | To be disclosed | [Progress bar] | | | | | |
| CLS-3 | To be disclosed | To be disclosed | [Progress bar] | | | | | |
| Nativus' Series | | | | | | | | |
| NLS-1 | Small molecule | Treatment of Endometriosis | [Progress bar] | | | | | |
| Sopio's Series | | | | | | | | |
| SPLS-1 | 83b-1 Novel Quinoline erivative | Treatment of Liver Cancer | [Progress bar] | | | | | |
| Videns' Series | | | | | | | | |
| VLS-1 | Curcumin-MNP (Medical Imaging Agent for MRI Diagnosis) | Diagnosis of Alzheimer's Disease | [Progress bar] | | | | | |
| VLS-2 | MITA | Treatment of Alzheimer's & Parkinson's Disease | [Progress bar] | | | | | |
| VLS-4 | Imaging Agent for MRI Diagnosis | Diagnosis of Alzheimer's Disease | [Progress bar] | | | | | |

| Program | Modality | Indication | Formulation | Commercialisation |
|-------------|------------|---------------------|----------------|-------------------|
| DOI (NLS-2) | Supplement | Menopausal symptoms | [Progress bar] | |

| Projects | Candidate / Modality | Indication | Development Stage | | | | |
|-------------------------|--|--|-------------------------|--------------|--------------------------|-----------------------------------|------------------------|
| | | | Lab-based Phantom Trial | Animal Trial | IDE Application Approval | Safety/Feasibility Clinical Study | Pivotal Clinical Study |
| Signate's Series | | | | | | | |
| SLS-1 | Robotic Catheter Platform for Intra-operative MRI-Guided Cardiac Catheterization | Heart Rhythm Disorders by Cardiac Electrophysiology Intervention | [Progress bar] | | | | |

Forward-Looking Statements: Certain statements made herein are "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are "forward-looking statements," including any projections of earnings, revenue or other financial items, any statements of the plans, strategies and objectives of management for future operations, any statements concerning proposed new projects or other developments, any statements regarding future economic conditions or performance, any statements of management's beliefs, goals, strategies, intentions and objectives, and any statements of assumptions underlying any of the foregoing. Forward-looking statements may be identified by the use of words such as "anticipate," "believe," "expect," "estimate," "plan," "outlook," and "project" and other similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements reflect the current analysis of existing information and are subject to various risks and uncertainties. As a result, caution must be exercised in relying on forward-looking statements. Due to known and unknown risks, our actual results may differ materially from our expectations or projections. All forward-looking statements attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these factors. Other than as required under the securities laws, the Company does not assume a duty to update these forward-looking statements. These forward-looking statements speak only as of the date of this document and are subject to a number of risks, uncertainties and assumptions including, without limitation, risks related to the company's announced management and organizational changes, the continued service and availability of key personnel, its ability to expand its product assortment by offering additional products for additional consumer segments, development results, the company's anticipated growth strategies, anticipated trends and challenges in its business, and its expectations regarding, and the stability of, its supply chain, and the risks more fully described in Aptorum Group's Form 20-F and other filings that Aptorum Group may make with the Securities and Exchange Commission (the "SEC") in the future, each of which could cause actual results to differ materially from those described in these forward-looking statements. Additional information concerning these and other factors that may impact our expectations and projections will be found in our periodic filings with the SEC, including our Annual Report on Form 20-F for the fiscal year ended December 31, 2019. Aptorum Group's SEC filings are available publicly on the SEC's website at www.sec.gov. Aptorum Group disclaims any obligation to update the forward-looking statements, whether as a result of new information, future events or otherwise.



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Value Proposition

Aptorum's three pillars of drug discovery and development target indications with significant market size. The company is building a diverse portfolio of over 15 projects primarily in therapeutics and diagnostics across a wide range of currently unmet disease areas. Aptorum focuses on translating early-stage discovery into proof-of-concept clinical stages and transforming clinical outcomes through licensing, co-development, and commercialization. In addition, the company's proprietary Smart-ACT™ platform combines a computational approach and wet lab validation to screen over 2,600 pre-approved small molecule drugs for potential repurposing. This process allows Aptorum to identify candidates that can be repurposed for selected orphan or unmet diseases. This platform's first proof-of-concept asset is SACT-1 for Neuroblastoma, a cancer mostly affecting children that develops from immature nerve cells.

Investment Highlights

- Two candidates targeted to enter clinical phases in H2 2020, subject to regulatory approval of the relevant IND applications:
 - SACT-1 for Phase 1b/2a trials in the treatment of neuroblastoma (global c. \$2.6 billion market)²
 - ALS-4 for a Phase 1 trial in the treatment of infections caused by *Staphylococcus aureus* (incl. MRSA) (global c. \$2.9 billion market)³
- Near-term commercialization of dietary supplement for woman's menopausal health (global c. \$4.75 billion supplement market)¹ expected to begin generating revenue in second half of 2020
- Three additional SACT candidates underway
- 15+ therapeutic candidates under development in areas including infectious diseases, metabolic diseases related to gut microbiome, and drug repurposing for orphan diseases; representing an estimated combined multi-billion dollar global market opportunity
- Three pillars of new and repurposed drug discovery and development platform:
 - **Pillar 1: Smart-ACT™ (SACT series) – Orphan Diseases Drug Repurposing platform:** Systematic deployment of computational and wet-lab screening of regulatory approved therapeutics against a currently known universe of 7,000+ (and increasing) orphan diseases, including its SACT-1 targeting Neuroblastoma
 - **Pillar 2: Acticle (ALS series) – Infectious Diseases:** Drug development platform targeting deadly viral and bacterial infections including its ALS4, a first-in-class oral non-bactericidal anti-virulence drug intended to treat infection caused by *Staph. aureus* (e.g. MRSA)
 - **Pillar 3: Claves (CLS series) - Microbiota:** Targeting potential therapeutic targets via the modulation of the chemical signaling of gut microbiota.
- Over 70+ staff, clinical advisors and consultants with vast experience in drug development and clinical trials, including US FDA, EMA, and NMPA purposes.

References:

¹ Global Menopausal Hot Flashes Therapy Market \$5.7 Billion by 2025, <https://www.ihealthcareanalyst.com/global-menopausal-hot-flashes-therapy-market/>

² Neuroblastoma Market Global Industry Perspective, Comprehensive Analysis, Size, Share, Growth, Trends, and Forecast 2019 – 2023, <https://www.medgadget.com/2019/06/neuroblastoma-market-global-industry-perspective-comprehensive-analysis-size-share-growth-trends-and-forecast-2019-2023.html>

³ Methicillin-resistant *Staphylococcus Aureus* (MRSA) Drugs Market is estimated to reach the value of US\$ 3,908.2 Mn by the end of 2025, <https://www.openpr.com/news/1901133/methicillin-resistant-staphylococcus-aureus-mrsa-drugs>

⁴ Does not include options that have vested, but that have not yet been exercised.

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