



PAVmed Inc.

Initiating Coverage with BUY and \$5.00 Target

Strong potential for its devices to treat CTS and diagnose esophageal cancer. Expected positive milestones and clinical data, and a ramp in commercialization over the next year to be positive catalysts for stock.

Initiating with BUY: We are initiating coverage of PAVmed with a BUY rating. PAVmed is a clinical/early-stage commercialization medical device company focused on developing a broad pipeline of innovative medical technologies.

Focused on 3 devices commercially available: EsoCheck has received 510(k) marketing clearance from the FDA as an esophageal cell collection device in June 2019. EsoGuard completed the certification required by the Clinical Laboratory Improvement Amendment (CLIA) and accreditation of the College of American Pathologists (CAP) making it commercially available as a Laboratory Developed Test (LDT) at LUCID's contract diagnostic laboratory service provider in December 2019. CarpX, a precision cutting tool to treat carpal tunnel syndrome, received 510(k) marketing clearance from the FDA in April 2020.

EsoGuard: EsoGuard is a molecular diagnostic esophageal DNA test shown in a published human study to be highly accurate at detecting Barrett's Esophagus (BE), as well as EAC. The estimated addressable domestic market opportunity for EsoGuard is ~\$2 billion based on tens of millions of U.S. patients with gastroesophageal reflux disease (GERD), more commonly called acid reflux or chronic heartburn, who are BE screening candidates.

EsoCheck: EsoCheck is a non-invasive cell collection device designed to sample cells from a targeted region of the esophagus in a five-minute office-based procedure, without the need for endoscopy.

CarpX: CarpX is a patented, single-use disposable, minimally invasive medical device designed as a precision cutting tool to treat carpal tunnel syndrome while reducing recovery times. PAVmed believes this device will allow the physician to relieve the compression on the median nerve without an open incision or the need for endoscopic or other imaging equipment, thus being significantly less invasive than existing treatments.

Large market potential: Cancer is the 2nd leading cause of death in the U.S. (behind heart disease) with ~600,000 deaths a year. Carpal Tunnel Syndrome (CTS) is the most common cumulative trauma disorder and accounts for over half of all occupational injuries.

Ramp in commercialization can be catalyst: We expect initial revenue for PAVmed by Q1 2021. Its near term plans over the next couple of years is to advance commercialization of its 3 main products (EsoGuard, EsoCheck, and CarpX) as well as gain additional regulatory approvals (expand usage in the U.S. and for international markets). We believe achieving key milestones and ramp in revenues will likely be catalysts for the stock.

However, challenges exist: PAVmed operates in a highly competitive environment and competes against a wide range of other devices, diagnostics, and therapeutics. PAVmed's products will also have to compete with existing or new standards of care.

Positive high risks versus high rewards: Overall, concerns outweighed by growth prospects and valuation. PAVmed's devices still have long development and commercialization challenges ahead, but we believe the ~billion dollars market potential presents high rewards for the risks.

Current valuation attractive: We calculate a 12-month price target for shares of PAVmed to be \$5.00 based on a NPV analysis, representing significant upside from the current share price. We believe this valuation appropriately balances out the company's high risks with the company's high growth prospects and large upside opportunities.

Company Description

Based in New York, NY, PAVmed is a clinical/early-stage commercialization multi-product medical device company focused on developing a broad pipeline of innovative medical technologies.

United States
Healthcare

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COVERAGE INITIATION

Rating: BUY

Ticker: PAVM

Price: \$1.82

Target: \$5.00

Stock Data

Exchange:	NasdaqGS
52-week Range:	\$0.81 – 3.45
Shares Outstanding (million):	50
Market cap (\$million):	\$91
EV (\$million):	\$100
Debt (\$million):	\$16
Cash (\$million):	\$7
Avg. Daily Trading Vol. (\$million):	~\$1
Float (million shares):	39
Short Interest (million shares):	3
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	<u>2019A</u> (Cur.)	<u>2020E</u> (Cur.)	<u>2021E</u> (Cur.)
Q1 Mar	0A	0A	0.1E
Q2 Jun	0A	0A	0.5E
Q3 Sep	0A	0E	1.1E
Q4 Dec	<u>0A</u>	<u>0E</u>	<u>1.7E</u>
Total	0A	0E	3.3E
EV/Revs	N/A	N/A	30x

Earnings per Share (pro forma)

	<u>2019A</u> (Cur.)	<u>2020E</u> (Cur.)	<u>2021E</u> (Cur.)
Q1 Mar	(0.09)A	(0.10)A	(0.11)E
Q2 Jun	(0.10)A	(0.09)A	(0.11)E
Q3 Sep	(0.09)A	(0.11)E	(0.10)E
Q4 Dec	<u>(0.12)A</u>	<u>(0.11)E</u>	<u>(0.09)E</u>
Total	(0.39)A	(0.42)E	(0.42)E
P/E	N/A	N/A	N/A

Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 27.

Exhibit 1: PAVmed Inc. Stock Price (4-years since IPO April 2016)



Source: Nasdaq.com

INVESTMENT THESIS

We are initiating coverage of PAVmed with a BUY rating and a 12-month price target of \$5.00.

Based in New York, NY, PAVmed is a clinical/early-stage commercialization multi-product medical device company focused on developing a broad pipeline of innovative medical technologies. From concept to commercialization, the company is focused on a diversified product pipeline addressing unmet clinical needs encompassing a broad spectrum of clinical areas with attractive regulatory pathways and market opportunities. PAVmed has four operating divisions, which include GI Health, Minimally Invasive Interventions, Infusion Therapy, and Emerging Innovations.

PAVmed's founders include three accomplished medical device entrepreneurs: Lishan Aklog M.D., Michael J. Glennon, and Brian J. deGuzman, M.D. Between 2008 and 2013, they founded four single-product medical device companies, three of which commercialized products and one was acquired. PAVmed was founded to adapt this model to a multi-product company to conceive, develop and commercialize its medical device products using significantly less capital and time than a typical medical device company.

The company's current main focus is on its 3 commercial available products: EsoCheck, EsoGuard, and CarpX.

EsoGuard is a molecular diagnostic esophageal DNA test shown in a published human study to be highly accurate at detecting Barrett's Esophagus (BE), as well as EAC. The estimated addressable domestic market opportunity for EsoGuard is ~\$2 billion based on tens of millions of U.S. patients with gastroesophageal reflux disease (GERD), more commonly called acid reflux or chronic heartburn, who are BE screening candidates.

EsoCheck is a non-invasive cell collection device designed to sample cells from a targeted region of the esophagus in a five-minute office-based procedure, without the need for endoscopy.

CarpX is a patented, single-use disposable, minimally invasive medical device designed as a precision cutting tool to treat carpal tunnel syndrome while reducing recovery times. PAVmed believes this device will allow the physician to relieve the compression on the median nerve without an open incision or the need for endoscopic or other imaging equipment, thus being significantly less invasive than existing treatments.

Exhibit 2: PAVmed Inc.



Nasdaq: PAVM, PAVMZ

Innovation-driven, multi-product, commercial-stage medical device company

PRODUCT PORTFOLIO

- Highly diversified across broad range of clinical conditions
- Expanding through both internal and licensed external innovations
- Over 100 issued and pending patents across 17 families
- Total market opportunity over \$3 Billion

BUSINESS MODEL

- Proven track record
- Capital-efficiency
- Speed to market

LEADERSHIP TEAM

- Deep business, finance and M&A experience
- Strong clinical and technical expertise
- Proven track record of value creation and return to investors

Source: Company reports.

Cancer is the 2nd leading cause of death in the U.S. (behind heart disease) with ~600,000 deaths a year. The incidence of EAC, the most common cancer of the esophagus, has quadrupled over the past 30 years. Its prognosis remains dismal, with fewer than 20% of patients surviving at five years. PAVmed is pursuing the development of the EsoGuard technology to provide the more than 30 million diagnosed GERD patients a non-invasive, less costly test by which to detect BE so that patients identified with the condition may receive surveillance and medical therapies known to be effective at preventing progression to esophageal cancer.

Carpal Tunnel Syndrome (CTS) is the most common cumulative trauma disorder and accounts for over half of all occupational injuries. The carpal tunnel is an anatomic compartment in the wrist through which tendons and the median nerve pass. Cumulative trauma leads to inflammation which manifests itself clinically through its compressive effect on the median nerve, resulting in motor and sensory dysfunction in the hand.

PAVmed believes its EsoGuard, EsoCheck, and CarpX products provide strong options and market opportunities for their respective categories to improve patient outcomes and at lower costs than existing standards of care. In addition, PAVmed has a solid pipeline of other products in various stages of development and is opportunistic in seeking out new products and opportunities.

Exhibit 3: PAVmed Products

Diversified Product Portfolio

GI HEALTH

EsoGuard
esophageal DNA test

EsoCheck
cell collection device

EsoCure
esophageal ablation device

Integrated suite of products designed to diagnose and treat complications of Gastroesophageal Reflux Disease (GERD) along the spectrum from non-dysplastic Barrett's Esophagus (BE) to Esophageal Adenocarcinoma (EAC).

EMERGING INNOVATIONS

Solys – Noninvasive glucose monitoring

FlexMO – Novel, versatile mechanical circulatory support (ECMO) cannula

DisappEAR – Resorbable pediatric ear tubes

NextVent – Full-featured, low-cost, single use ventilator

MINIMALLY INVASIVE INTERVENTIONS

CarpX
Minimally invasive device to treat Carpal Tunnel Syndrome

INFUSION THERAPY

PortIO
Maintenance-free implantable vascular access device

nextflo
with FloSure™
Platform technology providing highly accurate flow for IV infusion sets and disposable infusion pumps

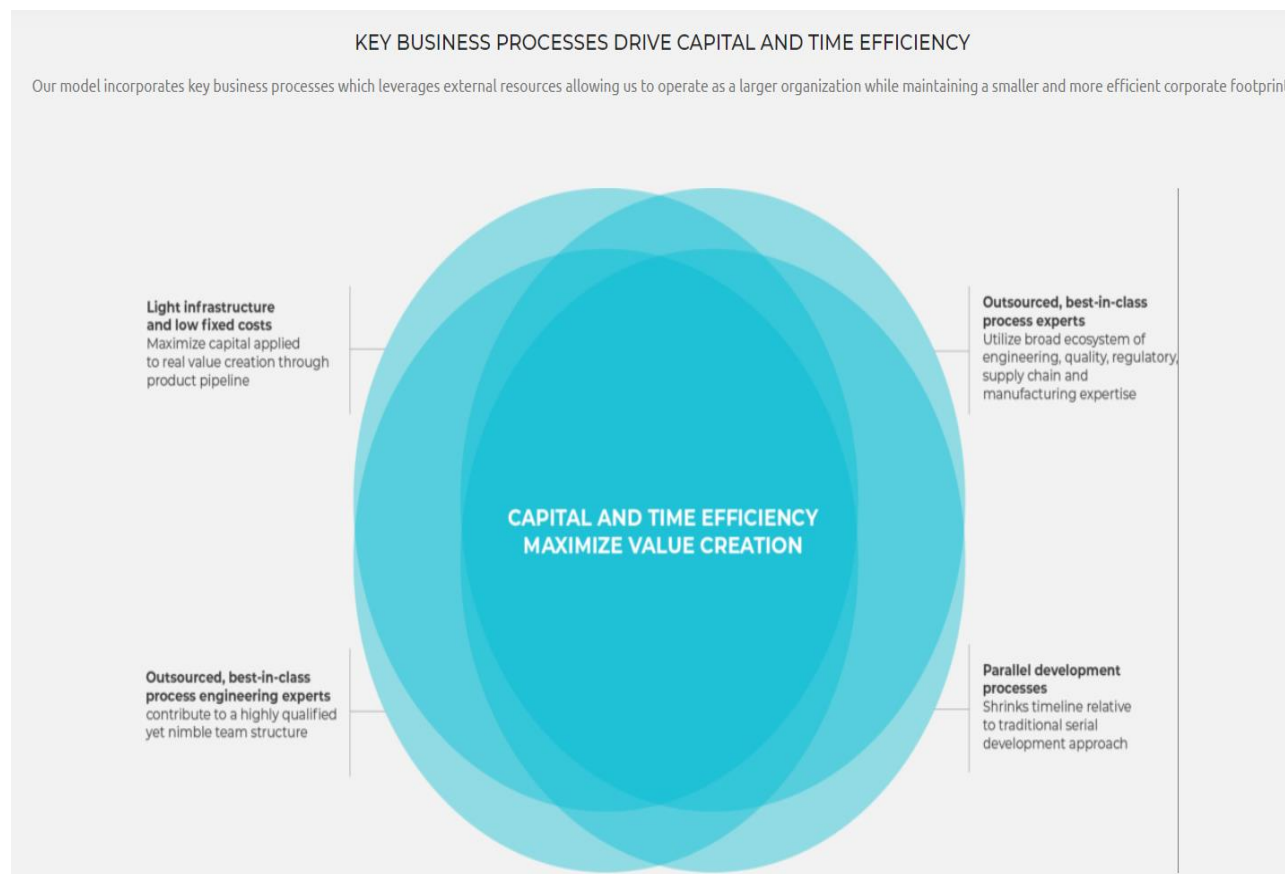
Source: Company reports.

PAVmed has key upcoming milestones for its 3 main products that we believe should be achieved by late 2020/early 2021:

- Accelerate and expand EsoGuard and EsoCheck commercial activities.
- Launch additional Lucid-sponsored clinical trials of EsoGuard and EsoCheck to support commercial activities.
- Begin CarpX commercial activities focusing on key opinion leaders and innovators capable of serving as CarpX trainers, proctors and educators.
- Complete stage 2 audits of PAVmed and Lucid’s quality management systems and submit EU CE Mark regulatory clearance applications for EsoCheck, EsoGuard, CarpX, and PortIO.
- Complete M&A process and consummate licensing agreement for NextFlo technology in disposable infusion pumps.

Its near term plans over the next couple of years is to advance commercialization of its 3 main products (EsoGuard, EsoCheck, and CarpX) as well as gain additional regulatory approvals (expand usage in the U.S. and for international markets). We believe that if clinical trials activities and commercialization results are positive, the company may be able to start and grow revenues significantly. PAVmed's share price YTD has been strong (~+50% from \$1.20 on December 31, 2019). We believe that there are near term catalysts that can drive the stock (particularly for key milestones expected in 2020/21).

Exhibit 4: PAVmed's Business Model



Source: Company reports.

PAVmed's recent financial performance is reflective of its developmental and early commercialization stage. In its recent Q2 2020 report, the company reported no revenue and net loss was \$5.6 million (with pro forma net loss of \$4.2 million). Operating expenses were \$5 million, mainly due to device development costs and general and administrative expenses. The company currently does not have revenues, but we do expect it to start recognizing revenue by Q1 2021.

The company's balance sheet had ~\$7 million in cash and \$16 million in debt as of June 2020. In August 2020 (Q3), the company raised \$7 million in convertible notes (2 years at 7.875% with a conversion price of \$5.00/share). The company should have enough cash through Q4 2020, but will likely need to raise additional cash to fund its operations by Q1 2021.

Our investment thesis factors in an uncertain development and commercialization process and competitive industry which is offset by the very large potential upside opportunities created from a successful medical device. We believe that the current valuation for PAVmed has already factored in many of its risks (principally device approvals and successful commercialization) but is under valuing its overall growth prospects and product portfolio, resulting in a positive risk versus reward scenario for an investment in PAVmed.

We believe the current valuation is attractive.

Based on our expectations and assumptions and our NPV analysis, we calculate a 12-month price target for shares of PAVmed to be \$5.00, which represents significant upside from current share price. We believe this valuation appropriately balances out the company's high risks with the company's high growth prospects and large upside opportunities. We acknowledge that PAVmed is still at an early stage in its device development and product commercialization, but we believe key milestones over the next year should be positive catalysts for the stock.

INVESTMENT RISKS

Long and Uncertain Medical Device Development Cycles

PAVmed's 3 main products (EsoGuard, EsoCheck, and CarpX) are all FDA approved/cleared, but the company is contemplating seeking additional regulatory approvals including in international markets for its products. In addition, the company has several other products in development that are still in clinical development. PAVmed is highly dependent upon securing approvals for its products in order to sell them (produce revenue). The medical device development cycle can be long and expensive, complicated, and uncertain (averages 3 - 7 years and \$30 - 90 million), though they usually are significantly lower than that for drug development (which averages 12 years and \$350 million). However, most medical devices are still subject to regulatory control and approvals before it can be marketed, though this is also significantly faster (usually 90 – 180 days) than that for drug development. Even after obtaining approvals, there is still a chance that commercial success will not be achieved (due to competition, changes in the market, lack of reasonable reimbursements, or lack of market acceptance). With a high likelihood of binary outcomes (either success or failure), the risks are high but the potential rewards can also be very high as well.

Product Commercialization Risks

PAVmed aims for its 3 main products (EsoGuard, EsoCheck, and CarpX) to improve outcomes and lower costs for their respective treatment areas. Its CarpX is a minimally invasive device to treat Carpal Tunnel Syndrome, while its EsoGuard and EsoCheck products are complementary technologies designed to facilitate diagnosis of nondysplastic and dysplastic Barrett's Esophagus (BE). BE is a precursor of highly lethal esophageal adenocarcinoma (esophageal cancer). EsoGuard, EsoCheck, and CarpX have all recently received FDA approvals/clearances, and are being commercialized though they are all at very early stages. PAVmed will need to educate its target market and to demonstrate superiority (more effective and/or lower costs) of its product compared with existing standards of care. There are significant risks to launch and commercialize its products, including manufacturing, distribution, and sales of the product along with service, training, and maintenance.

High Level of Competition

PAVmed operates in a highly competitive environment and competes against a wide range of other biopharmaceutical and medtech companies that are attempting to replicate or already have similar treatments, devices, or diagnostics as the company's main products. Some of these competitors are much larger or have greater resources, and proprietary technology; which could result in lower projected sales for its products and higher costs, reduced margins, and lowered profitability for the company. PAVmed's products will also have to compete with existing or new standards of care.

Concentrated Product Pipeline

While the company is currently developing several medical device and technology products, most of its focus is on 3 main products (EsoGuard, EsoCheck, and CarpX). EsoGuard, EsoCheck, and CarpX are all at early stages of commercialization and revenue has been minimal. However, if PAVmed were to experience difficulties with general development and commercialization of these products,

then it would have a material negative impact on its business and financials as there are no meaningful products which can offset (particularly in the near term).

Coronavirus and Economic Uncertainties

While healthcare costs tends to be less correlated with economic activity and income levels due to their nondiscretionary nature, major deterioration in economic conditions tends to result in an overall decline in consumer spending. This was demonstrated during the 2008 and 2009 Great Recession and global economic slowdown. While consumer spending levels and economic conditions have rebounded since and have been strong the past several years, the global macroeconomic environment has turned significantly weaker recently with the start of the pandemic in March. Since then (in the past 8 months), there is now huge uncertainties with the current coronavirus pandemic and its effects. This has negatively impacted many businesses and has been a huge disruption to the U.S. (and global) economy. Though, we also note that the current coronavirus pandemic has brought potential business opportunities for the company as well. Further economic weakness may result in depressed enterprise and consumer spending levels; this may have a negative impact on PAVmed, its business partners, government, and consumers.

Capital Markets Risks

We believe PAVmed has enough cash to fund its operations through Q4 2020, but we estimate that it will need to raise capital by Q1 2021. While the company has recently started to commercialize its products, we believe that it will be at least 2 years before the company can be cash flow self-sufficient from operations. Many biopharmaceutical/medical device companies fund their operations from the sale of equity or debt capital until their products reach commercial success or until they sell off the commercial rights to other companies. Medical device companies (“medtechs”) valuations tend to fluctuate widely, and though they are reasonably strong now (due to a strong M&A market for biotechs and health related companies), there is always the chance that market interests and valuations for companies in this industry decline significantly. The share price volatility in the past year (with a stock price range of \$0.81 – 3.45) in PAVmed’s share price may make capital raising much more difficult and expensive, though we note its YTD share price performance has been strong (~+50%).

VALUATION

We are initiating coverage of PAVmed with a BUY rating and a 12-month price target of \$5.00, which is based on a NPV analysis. As the company is a clinical stage/early commercialization medical device and diagnostic company, it currently generates no revenue and significant losses so traditional valuation metrics are not useful. We believe a more accurate valuation should take into consideration the potential value of its product pipeline. We do acknowledge that this valuation is complex and requires a large number of forward assumptions that we have to estimate that may be imprecise and may vary significantly from actual results. This is particularly so for a company like PAVmed which is still in early product commercialization with its 3 main products.

However, we believe our assumptions are fair and provide a reasonable basis for our valuation analysis. Our analysis considers future estimated revenue from each of its major product pipelines (based on estimated future sales, a probability rate of success, and discounted this back to a current value), currently focused on its EsoGuard, EsoCheck, and CarpX products. We apply a high discount rate and above average probability of success to capture the uncertainties associated generally with medical devices and products in development offset by their recent commercial launches. We then added up the values, made an assumption about future investments required and allocated the value based on current share count. Based on our NPV analysis, we arrived at our 12-month price target of \$5.00, which we believe appropriately balances out the company’s risks with its high growth prospects.

PAVmed’s share price YTD has been strong (~+50% from \$1.20 on December 31, 2019), but it has traded in a wide volatile range (\$1.14 on January 8 to \$3.45 on February 25). However, we believe that there are near term catalysts that can drive the stock (particularly for key milestones expected in 2020/21). As the company is likely to make significant progress (and milestones) in its product development and product commercialization over the next several years, we believe this will result in much improved visibility into future cash flows. We expect valuations for PAVmed to improve as visibility into cash flow generation becomes clearer, resulting in significant upside to the current share price.

Exhibit 5: Company Valuation (DCF)

Valuation of Products (in millions)

Product	Estimated NPV	% of Success	Calculated NPV	Discount Rate	Estimated Annual Sales	% of Market Share	Market Potential per year
EsoGuard	\$ 94	75%	\$ 125	25%	\$ 31	25%	\$ 125
EsoCheck	\$ 94	75%	\$ 125	25%	\$ 31	25%	\$ 125
CarpX	\$ 75	75%	\$ 100	25%	\$ 25	25%	\$ 100
Other	\$ 18	35%	\$ 50	75%	\$ 38	25%	\$ 150
Total	\$ 280						

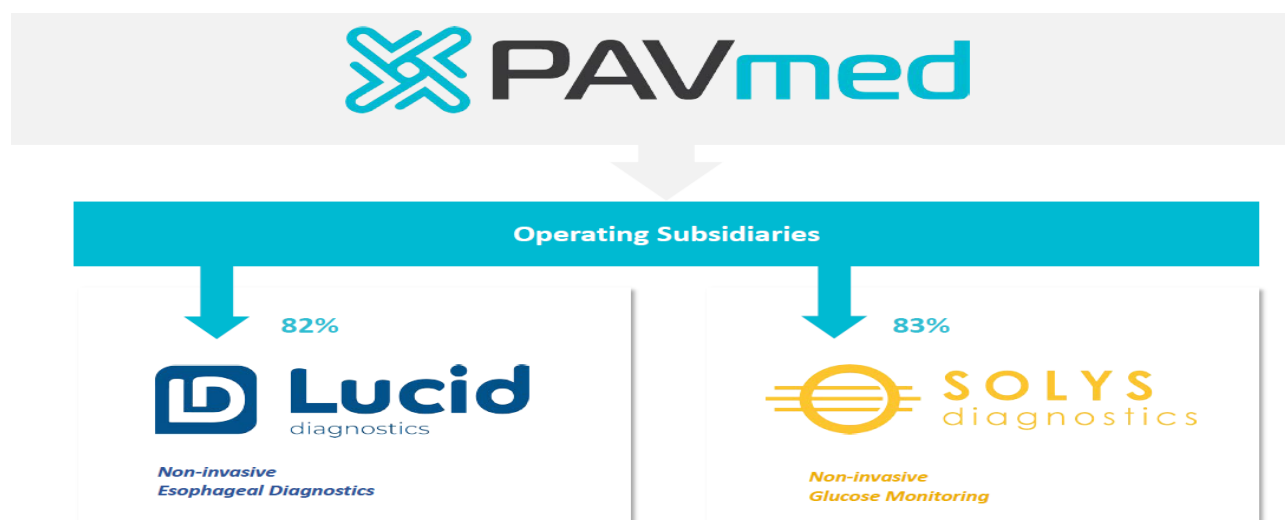
Estimated additional investments (& debt) required	\$ 30
Current Value for existing shareholders	\$ 250
Shares Outstanding (mils)	50
Estimated Value per share	\$ 5.00

Source: Ascendant Capital Markets estimates

COMPANY

Based in New York, NY, PAVmed is a clinical/early-stage commercialization multi-product medical device company focused on developing a broad pipeline of innovative medical technologies. From concept to commercialization, the company is focused on a diversified product pipeline addressing unmet clinical needs encompassing a broad spectrum of clinical areas with attractive regulatory pathways and market opportunities. PAVmed has two active majority owned subsidiaries: Lucid Diagnostics Inc. (incorporated in May 2018), and Solys Diagnostics Inc. (incorporated in October 2019). PAVmed has four operating divisions, which include GI Health, Minimally Invasive Interventions, Infusion Therapy, and Emerging Innovations.

Exhibit 6: PAVmed's Corporate Structure



Source: Company reports.

PAVmed's founders include three accomplished medical device entrepreneurs: Lishan Aklog M.D., Michael J. Glennon, and Brian J. deGuzman, M.D. In 2007, they founded Pavilion Holdings Group, a medical device holding company to create single-product medical device companies using an outsourced business model focused on capital efficiency and speed to market. In 2009, they founded Pavilion Medical Innovations, a venture-backed medical device incubator. Between 2008 and 2013, PHG and PMI founded four single-product medical device companies, three of which commercialized products and one of which was acquired. PAVmed was founded to adapt this model to a multi-product company to conceive, develop and commercialize its medical device products using significantly less capital and time than a typical medical device company.

PAVmed was founded in 2014, under the name PAXmed Inc. In 2015, the company changed its name to PAVmed Inc. The company completed its IPO in April 2016. As of March 2020, the company had 15 employees.

Its key Executive Officers are:

- Lishan Aklog, M.D. (age 54) - Chairman of the Board and Chief Executive Officer
- Dennis M. McGrath (age 63) - President, Chief Financial Officer and Corporate Secretary
- Brian J. deGuzman, M.D. (age 56) - Chief Medical Officer

Exhibit 7: PAVmed Management Team

Executive Leadership Team



LISHAN AKLOG, MD
Chairman & CEO



DENNIS MCGRATH
President & CFO



BRIAN DEGUZMAN, MD
Chief Medical Officer



SHAUN O'NEIL
Chief Commercial Officer



RICH YAZBECK
Chief Technology Officer



RANDY BROWN
Chief Operating Officer, Lucid



DAVID WURTMAN MD
Chief Medical Officer, Lucid

BROAD EXPERTISE AND EXPERIENCE

- Medical Device Innovation
- Commercialization
- Market Development
- Physician Engagement
- Direct To Consumer
- Regulatory Clearance
- Clinical Trial Design and Execution
- Reimbursement, Payment and Coverage
- Corporate Financing And Capital Markets
- M&A and Licensing

Source: Company reports.

PRODUCT DEVICE PIPELINE

PAVmed has four operating divisions including: GI Health (EsoGuard Esophageal DNA Test, EsoCheck Esophageal Cell Collection Device, and EsoCure Esophageal Ablation Device with CalduS Technology), Minimally Invasive Interventions (CarpX Minimally Invasive Device for Carpal Tunnel Syndrome), Infusion Therapy (PortIO Implantable Intraosseus Vascular Access Device and NextFlo Highly Accurate Disposable Intravenous Infusion Set), and Emerging Innovations (non-invasive laser-based glucose monitoring, pediatric ear tubes, and mechanical circulatory support).

The company's current main focus is on its 3 commercial available products: EsoCheck, EsoGuard, and CarpX. EsoCheck has received 510(k) marketing clearance from the FDA as an esophageal cell collection device in June 2019. EsoGuard completed the certification required by the Clinical Laboratory Improvement Amendment (CLIA) and accreditation of the College of American Pathologists (CAP) making it commercially available as a Laboratory Developed Test (LDT) at LUCID's contract diagnostic laboratory service provider in December 2019. CarpX, a precision cutting tool to treat carpal tunnel syndrome, received 510(k) marketing clearance from the FDA in April 2020.

Exhibit 8: PAVmed's Commercially Available Products

Commercially Available Products

 <p>EsoGuard esophageal DNA test</p>  <ul style="list-style-type: none"> Commercially launched as LDT Q4-2019 CMS preliminary payment determination of ~\$2000 15M target population per published society guidelines 	 <p>EsoCheck cell collection device</p>  <ul style="list-style-type: none"> FDA 510(k) cleared in Q2-2019 as anatomically targeted non-invasive esophageal cell collection device Alternative to invasive endoscopy 	 <p>CarpX Minimally Invasive Device to Treat Carpal Tunnel Syndrome</p>  <ul style="list-style-type: none"> FDA 510(k) cleared in Q2-2020 as a minimally invasive device alternative to open carpal tunnel release surgery Estimate \$1 billion market opportunity based on over 600,000 U.S. procedures annually and up to 1.5 million with symptoms who "suffer in silence"
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Source: Company reports.

The company has other products in its portfolio pipeline, including EsoGuard IVD, PortIO, DisappEAR, NextFlo, and EsoCure. PortIO is a novel, patented, implantable, intraosseous vascular medical device which does not require accessing the central venous system and does not have an indwelling intravascular component. NextFlo is a patented, disposable, and highly accurate infusion platform technology including intravenous (IV) infusion sets and disposable infusion pumps (DIP) designed to eliminate the need for complex

and expensive electronic infusion pumps for most of the estimated one million infusions of fluids, medications and other substances delivered each day in hospitals and outpatient settings in the United States. In June 2020, PAVmed announced that it will develop and utilize Canon Virginia's commercial grade and scalable aqueous silk fibroin molding process to manufacture PAVmed's DisappEAR molded pediatric ear tubes for commercialization.

Exhibit 9: CarpX

CarpX™

Minimally Invasive Device to Treat Carpal Tunnel Syndrome



CarpX Minimally Invasive Carpal Tunnel Release Procedure

- 1.** Insert CarpX device over wire and position electrodes relative to carpal bones
- 2.** Inflate balloon with contrast material and Activate device, cutting ligament with <2 sec burst of RF energy
- 3.** Confirm division of the TLC by full inflation of the balloon
- 4.** Lateral view of TLC division

Source: Company reports.

CarpX is a patented, single-use disposable, minimally invasive medical device designed as a precision cutting tool to treat carpal tunnel syndrome while reducing recovery times. PAVmed believes this device will allow the physician to relieve the compression on the median nerve without an open incision or the need for endoscopic or other imaging equipment, thus being significantly less invasive than existing treatments.

To use this device, the operator first advances a guidewire through the carpal tunnel under the ligament. The device is then advanced over the wire and positioned in the carpal tunnel under ultrasonic and/or fluoroscopic guidance. When the balloon is inflated it creates tension in the ligament positioning the cutting electrodes underneath it and creates space within the tunnel, providing anatomic separation between the target ligament and critical structures such as the median nerve. Radiofrequency energy is briefly delivered to the electrodes, rapidly cutting the ligament and relieving the pressure on the nerve.

CarpX received FDA market clearance under section 510(k) in April 2020 for minimally invasive surgical device for use in the treatment of carpal tunnel syndrome. The company plans to commercialize this product through a network of independent U.S. sales representatives and/or inventory-stocking medical distributors together with its in-house sales management and marketing teams.

Exhibit 10: CarpX Milestones

CarpX

Regulatory Status

- Completed First-in-Human FDA clinical safety study in December 2019
- **All patients met primary effectiveness endpoint** – complete division of TCL
- **All patients met primary safety endpoint** – no device-related serious adverse events
- Excellent results of other pre-specified outcome assessments, similar or better than expected results from traditional open surgery
- Short learning curve, procedures times fell to same or less than traditional open surgery
- FDA 510(k) Marketing Clearance Received on April 20, 2020

Commercial Status

- Commercially launched August 2020
- Building sales channel with established independent representatives



Source: Company reports.

Carpal Tunnel Syndrome (CTS) is the most common cumulative trauma disorder and accounts for over half of all occupational injuries. The carpal tunnel is an anatomic compartment in the wrist through which tendons and the median nerve pass. Cumulative trauma leads to inflammation which manifests itself clinically through its compressive effect on the median nerve, resulting in motor and sensory dysfunction in the hand.

A survey published in the Journal of the American Medical Association reported 2.5% of U.S. adults, or approximately five million individuals, have CTS and about 600,000 surgical procedures are performed annually for CTS. According to the Centers for Disease Control and Prevention, CTS accounts for two million office visits per year. Of the CTS patients that are candidates for surgery, an estimated 1.5 million CTS patients continue to suffer in silence rather than undergoing traditional invasive surgery due to concerns over the prolonged recovery time associated with an open incision.

Patients who have failed to improve with physical therapy or other non-invasive treatments are candidates for interventions which seek to relieve the compression of the median nerve by cutting the transverse carpal ligament, which forms the superficial wall of the carpal tunnel. Traditional surgical approaches are effective but are invasive and must be performed in a surgical operating room. Endoscopic approaches are less invasive, but are more technically challenging, more expensive and have been associated with higher complication rates. Less-invasive devices are currently on the market, but technical limitations have hindered market acceptance of these devices.

Exhibit 11: PAVmed's EsoGuard and EsoCheck



EsoGuard
esophageal DNA test



EsoCheck
cell collection device

Complementary technologies designed to facilitate diagnosis of **nondysplastic and dysplastic Barrett's Esophagus (BE)**, precursors of highly lethal **esophageal adenocarcinoma (EAC)**, as well as EAC itself, in patients with chronic heart burn or **gastroesophageal reflux disease (GERD)**



Highlighted as **one of the year's significant advances in cancer prevention** in the NCI's 2020 report to Congress



Granted **FDA Breakthrough Device designation** for EsoGuard on samples collected using EsoCheck in high-risk patients at elevated risk for esophageal dysplasia arising from GERD

Source: Company reports.

Exhibit 12: EsoGuard and EsoCheck Background



*A Majority-Owned Subsidiary of
PAVmed Inc*

In May 2018, PAVmed licensed the molecular diagnostic assay and cell collection device technology from Case Western Reserve University into a newly created subsidiary Lucid Diagnostics.

Lucid developed and commercialized these technologies as EsoGuard and EsoCheck.



Source: Company reports.

In May 2018, Lucid Diagnostics, a majority-owned subsidiary of PAVmed, licensed from Case Western Reserve University (CWRU) for the exclusive worldwide license for the technologies for EsoGuard and EsoCheck. This includes platform technology developed to provide an accurate, non-invasive, patient-friendly screening test for the early detection of adenocarcinoma of the esophagus (EAC) and of Barrett's Esophagus (BE), including dysplasia, pre-cursors to EAC in patients with chronic gastroesophageal reflux (GERD). This platform also includes technology (EsoCure) developed by PAVmed to treat BE.

EsoGuard is a molecular diagnostic esophageal DNA test shown in a published human study to be highly accurate at detecting Barrett's Esophagus (BE), as well as EAC. BE is a condition in which there are changes in the type of cells lining the esophagus, and which can occur with or without dysplasia (abnormal change in cells that occurs prior to cells becoming cancerous). Most individuals with BE are unaware that they have BE and thus are unaware of their risk of developing Esophageal Adenocarcinoma (Esophageal Cancer or EAC), as well as available treatment options which are effective at preventing progression of disease. The estimated addressable domestic market opportunity for EsoGuard is ~\$2 billion based on tens of millions of U.S. patients with gastroesophageal reflux disease (GERD), more commonly called acid reflux or chronic heartburn, who are BE screening candidates.

Exhibit 13: EsoGuard

EsoGuard

esophageal DNA test

EsoGuard IVD

- **FDA registered In Vitro Diagnostic (IVD)**
 - Seeking clearance through PMA pathway
- **Two international 60-site IVD clinical trials**
 - ESOGUARD-BE-1 and 2
 - Launched in support of an FDA PMA application in 2022
- **Proposed indication for use**

“Testing of esophageal samples collected using EsoCheck in ACG high-risk GERD patients”
- **Granted FDA Breakthrough Device designation**

“ACG high-risk GERD patients at elevated risk for esophageal dysplasia”



Source: Company reports.

EsoCheck is a non-invasive cell collection device designed to sample cells from a targeted region of the esophagus in a five-minute office-based procedure, without the need for endoscopy. It consists of an easy to swallow capsule the size of a gelcap, containing a proprietary textured balloon used to collect a mucosal cell sample when inflated. When the balloon is deflated after cell collection, the proprietary and patent-protected Collect+Protect Technology retracts the balloon with its collected cells back into the capsule, where they are protected during the retrieval process. These sampled cells may then be subjected to any commercially available diagnostic test, including EsoGuard.

The use of EsoGuard, on samples collected using EsoCheck, may offer an accurate, lower cost, non-invasive approach, that does not require endoscopy, to screen for BE and EAC. The use of EsoGuard, on samples collected using EsoCheck, is not intended as a replacement for EGD. Instead of replacing EGD, it is its vision that the use of EsoGuard, on samples collected using EsoCheck, may “enlarge the top of the funnel” of high risk individuals who get screened in the first place; those who test positive by EsoGuard will proceed to an EGD, whether as a confirmatory diagnostic procedure, a therapeutic ablation procedure, or both.

PAVmed’s near-term strategy is to market EsoGuard LDT through a network of independent representatives working with its in-house sales team. In June 2020, the U.S. Center for Medicare and Medicare Services (CMS) published its preliminary gapfill payment recommendation for EsoGuard payments of \$1,938 - 2,690.

PAVmed’s longer-term strategy is to secure a specific indication, based on published guidelines, for BE screening in certain at-risk populations using EsoGuard on samples collected with EsoCheck. This use of EsoGuard together with EsoCheck as a screening system must be cleared or approved by the FDA as an IVD device. The company is currently engaged in various EsoGuard IVD clinical trials.

Exhibit 14: EsoCheck



Novel, proprietary,
non endoscopic



Targeted Distal
Esophagus Cell
Collection



Collect + Protect
Technology



Circumferential



Fast Procedure

A non-invasive five-minute office-based procedure to collect cells from the esophagus



1 Swallow



2 Inflate



3 Collect



4 Protect



Source: Company reports.

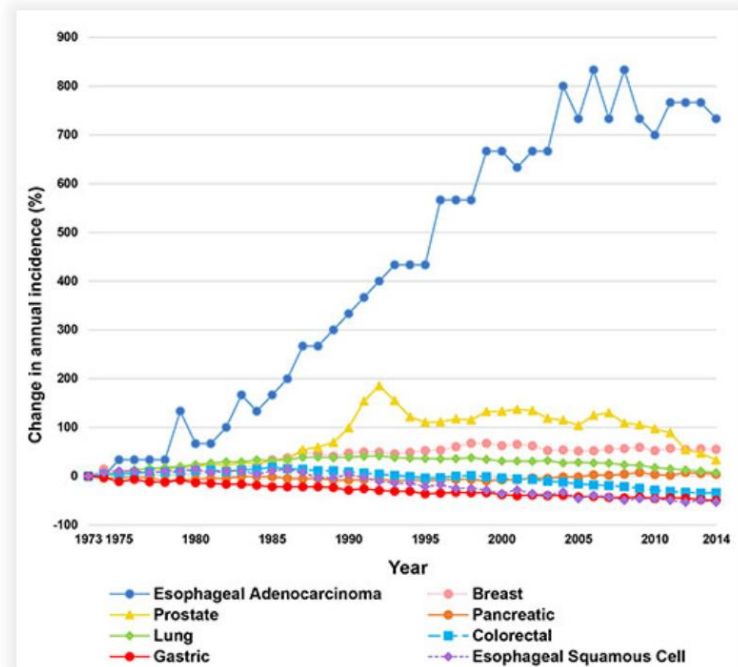
Exhibit 15: Esophageal Cancer Statistics

Esophageal Cancer Statistics

Estimated New Cases in 2020	18,440
% of All New Cancer Cases	1.0%
Estimated Deaths in 2020	16,170
% of All Cancer Deaths	2.7%



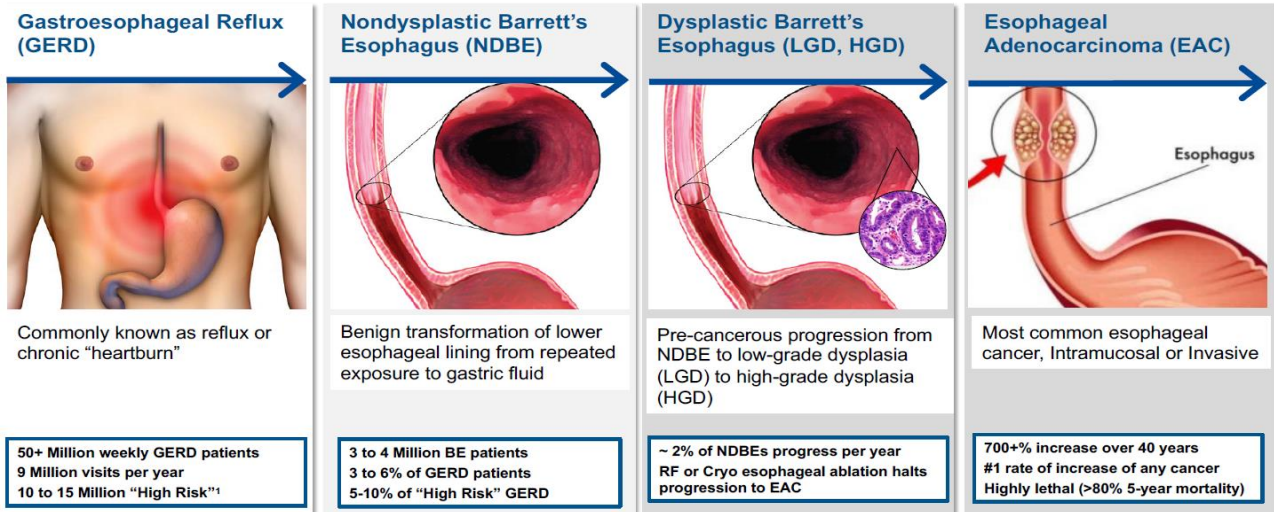
Esophageal Adenocarcinoma has increased over 700% in the past 4 decades



Source: Company reports, THE EPIDEMIOLOGY OF ESOPHAGEAL ADENOCARCINOMA IN THE UNITED STATES, and National Cancer Institute.

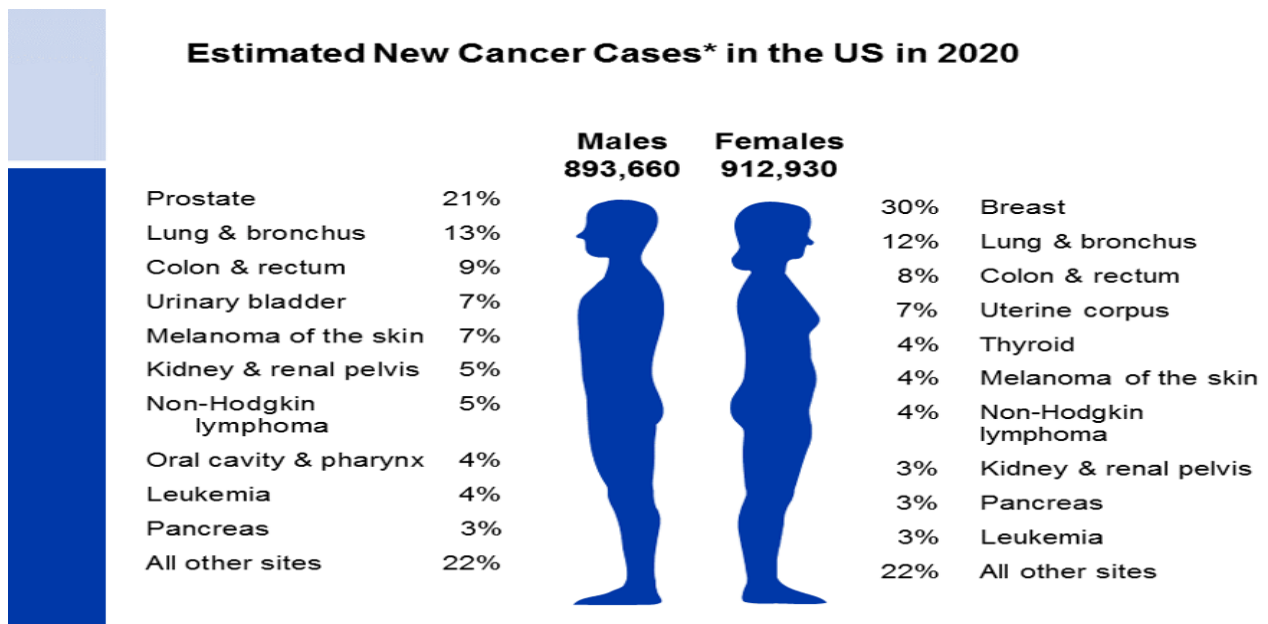
Exhibit 16: Progression from Reflux to Cancer

The Barrett's Esophagus (BE) to Esophageal Adenocarcinoma (EAC) Spectrum



Source: Company reports.

Exhibit 17: New Breast Cancer Cases in the U.S. in 2020



Source: American Cancer Society.

Cancer is the result of rapid and uncontrolled cell growth in your body. A normal cell multiplies and divides and grows in a controlled manner. When cells begin to divide and grow at an uncontrolled rate, this can develop into cancer which attacks and interferes with normal body functions. Cancer is the 2nd leading cause of death in the U.S. (behind heart disease) with ~600,000 deaths a year.

The American College of Gastroenterology's guidelines recommend screening in millions of high-risk patients to detect and treat BE, before it progresses to EAC. However, fewer than 10% actually undergo screening using the traditional invasive approach, upper endoscopy. Most patients diagnosed with EAC are neither aware of their underlying BE, nor that they missed the opportunity to undergo treatment which could have prevented progression to EAC had the BE been diagnosed earlier. As a result, over 80% die within five years of diagnosis.

The incidence of EAC, the most common cancer of the esophagus, has quadrupled over the past 30 years. Its prognosis remains dismal, with fewer than 20% of patients surviving at five years. PAVmed is pursuing the development of the EsoGuard technology to provide the more than 30 million diagnosed GERD patients a non-invasive, less costly test by which to detect BE so that patients identified with the condition may receive surveillance and medical therapies well known to be highly effective at preventing progression to esophageal cancer.

The primary risk factor for, and a presumed cause of BE is GERD, commonly known as chronic heartburn or acid reflux, wherein stomach acid refluxes into the esophagus. GERD affects 20 - 40% of Western adult populations, according to published epidemiological data. The repeated exposure to stomach acid can lead to specific metaplastic and dysplastic, i.e. pre-cancerous changes in the esophageal lining, a condition known as Barrett's Esophagus (BE).

BE if unabated, continues through a dysplastic phase and ultimately into EAC. Due to the known risk for progression of BE toward EAC, current guidelines advise patients with nondysplastic BE to be enrolled in endoscopic surveillance programs in order to detect progression. For nondysplastic BE, the American College of Gastroenterology recommends surveillance endoscopy at 3-5 year intervals. Patients with high grade dysplasia (HGD) are to be managed with endoscopic therapy. Endoscopic surveillance includes extensive biopsy sampling.

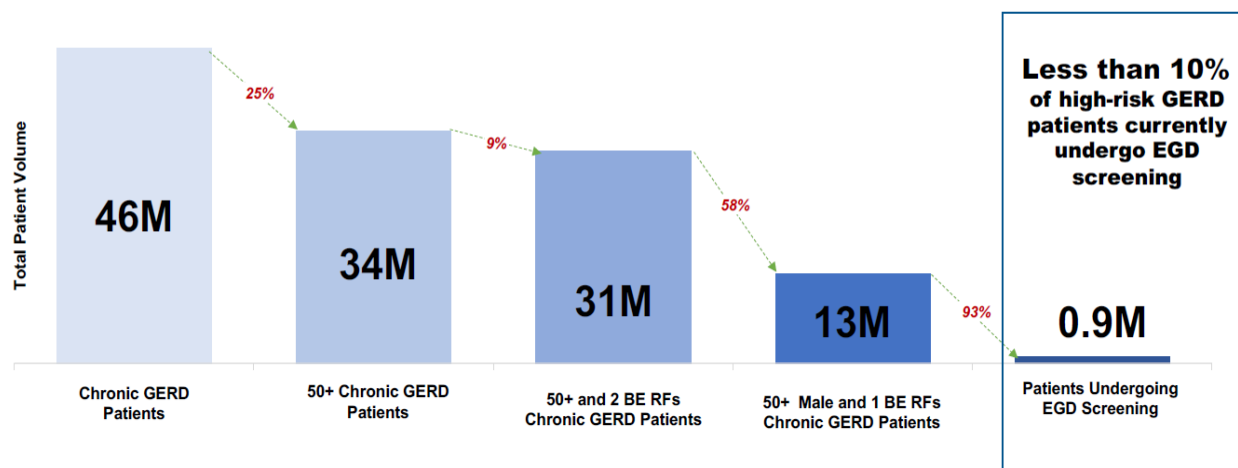
The current validated "gold standard" to assess a patient for BE and EAC, is white light esophagogastroduodenoscopy (EGD, also commonly known as "upper endoscopy"), together with collection of multiple biopsy specimens from the potentially affected area in the distal esophagus. EGD is invasive and expensive and almost always done under intravenous sedation in a specialized facility.

PAVmed believes that EsoGuard may become the widespread screening test to fulfill this unmet patient need similar to how pap smears and HPV testing have now become the widespread screening test to help eradicate cervical cancer. If detected before the EAC develops, BE can be successfully treated, usually with non-surgical approaches. Heartburn symptoms, commonly seen in patients with acid reflux with or without BE, can easily be treated with over-the counter medications, while a diagnosis of BE with LGD or HGD offers options for endoscopic management including radiofrequency ablation and local resection; these technologies have made LGD and HGD highly treatable with success rates of such therapies at greater than 90%.

Exhibit 18: BE to EAC Screenings

BE-to-EAC Screening

ACG Guidelines Target vs. Currently Screened Populations



The BE-to-EAC Screening

The Unmet Clinical Need

Less than 10%

< 10% of ACG-recommended patients are screened

< 10% of EAC patients have BE diagnosed before EAC

Tragic missed opportunity to monitor BE and treat LGD/HGD

Over 80%

Over 80% of EAC patients will die within five years of diagnosis

Increasing BE screening rate from < 10% to 25% will **prevent several thousand EAC deaths per year**

Widespread BE-EAC screening requires an effective and efficient non-invasive office-based test

Source: Company reports.

Upcoming Milestones

PAVmed has key upcoming milestones for its 3 main products that we believe should be achieved by late 2020/early 2021:

- Accelerate and expand EsoGuard and EsoCheck commercial activities.
- Launch additional Lucid-sponsored clinical trials of EsoGuard and EsoCheck to support commercial activities.
- Begin CarpX commercial activities focusing on key opinion leaders and innovators capable of serving as CarpX trainers, proctors and educators.
- Complete stage 2 audits of PAVmed and Lucid’s quality management systems and submit EU CE Mark regulatory clearance applications for EsoCheck, EsoGuard, CarpX, and PortIO.
- Complete M&A process and consummate licensing agreement for NextFlo technology in disposable infusion pumps.

Exhibit 19: Upcoming Milestones

Lucid Highlights and Upcoming Milestones

MAY 2018	<ul style="list-style-type: none"> • Lucid founded as PAVmed subsidiary • EsoGuard/EsoCheck licensed from 	FEB 2020	<ul style="list-style-type: none"> • EsoGuard/EsoCheck granted FDA Breakthrough Device designation • ESOGUARD BE-1 & BE-2 IVD trials launched
APR 2019	<ul style="list-style-type: none"> • Applied for EsoGuard CPT Code 		<ul style="list-style-type: none"> • Fred Hutch research and license option agreement for progression markers secured
JUN 2019	<ul style="list-style-type: none"> • Research Dx CLIA/CAP laboratory engaged • EsoCheck 510(k) cleared 	JUN 2020	<ul style="list-style-type: none"> • EsoGuard secures preliminary CMS Gapfill Payment determination • Stan Lapidus, founder, former Chairman & CEO of Exact Sciences joins as Strategic Advisor
OCT 2019	<ul style="list-style-type: none"> • EsoGuard/EsoCheck IVD FDA Pre-Submission Meeting • EsoGuard CPT Code 0114U issued • CMS Clinical Laboratory Fee Schedule (CLFS) process completed securing Gapfill designation 	AUG 2020	<ul style="list-style-type: none"> • UPenn EsoCheck EoE trial launched
DEC 2019	<ul style="list-style-type: none"> • EsoGuard CLIA/CAP Certification completed and commercially launched as Laboratory Developed Test (LDT) • First commercial procedures performed at Jefferson 	Late 2020	<ul style="list-style-type: none"> • EsoGuard CMS coverage determination • EsoGuard CMS final payment determination
		JAN 2021	<ul style="list-style-type: none"> • EsoGuard CMS payment effective
		LATE 2021	<ul style="list-style-type: none"> • ESOGUARD BE-1 & BE-2 IVD trials complete enrollment
		H1 2022	<ul style="list-style-type: none"> • EsoGuard/EsoCheck IVD PMA Submission

Source: Company reports.

FINANCIALS

PAVmed's fiscal year ends on December 31. We expect its next earnings report (for Q3 2020) to be in mid-November (the company has announced that its earnings conference call will be on Tuesday, November 17, 2020). Because the company is a clinical stage and early commercialization medical device development company, it currently generates no revenue and significant losses as it funds its device development.

Exhibit 20: PAVmed's Historical Financials

FYE December 31				
(in millions except EPS)	2018A	2019A	2020E	2021E
Operating income (loss)	(10.6)	(14.3)	(20.5)	(19.4)
GAAP Net income	(18.8)	(16.7)	(31.2)	(21.2)
Pro forma Net income	(11.0)	(11.9)	(19.7)	(21.2)
EPS	\$ (0.50)	\$ (0.39)	\$ (0.42)	\$ (0.42)
Cash flow from operations	(8.8)	(13.4)	(19.3)	(19.1)

Source: Company reports and Ascendant Capital Markets estimates.

Recent Results (fiscal Q2 ending June 2020)

PAVmed's recent financial performance is reflective of its developmental and early commercialization stage. In its Q2 2020 report (on August 18, 2020), the company reported no revenue and net loss was \$5.6 million (with pro forma net loss of \$4.2 million). Operating expenses were \$5 million, mainly due to device development costs and general and administrative expenses. Q2 Pro forma EPS was \$(0.09).

The company does not provide specific quarterly financial guidance. However, we believe Q2's operating expenses of ~\$5 million is a reasonable near term quarterly burn rate. The company expects continued progress on its device development and commercial milestones in 2020/21. The company currently does not have revenues, but we do expect it to start recognizing revenue by Q1 2021. The company has already begun commercialization for its 3 main products (EsoGuard, EsoCheck, and CarpX) so we expect in 2021, it will start to gain revenue traction. We have modeled relatively steady operating costs over the next year, primarily driven by its development and commercialization expenses.

For 2020, we expect a pro forma net loss of \$20 million and EPS of \$(0.42). For 2021, we expect revenue (for the first time) of \$3 million, a pro forma net loss of \$21 million, and EPS of \$(0.42).

Its near term plans over the next couple of years is to advance commercialization of its 3 main products (EsoGuard, EsoCheck, and CarpX) as well as gain additional regulatory approvals (expand usage in the U.S. and for international markets). We believe that if clinical trials activities and commercialization results are positive, the company may be able to start and grow revenues significantly.

We note that there are significant uncertainties (along with opportunities) with the current coronavirus pandemic. Some of its clinical and commercialization activities for the company's devices were delayed during the early COVID-19 lockdowns, but most of them have resumed back. The company is also exploring several COVID-19 treatment devices, though they are still at very early stages. However, there is the chance that the coronavirus will dissipate by itself, or that an effective vaccine or other therapeutic treatments for COVID-19 may be developed and launched before the company's devices are launched.

We believe that the biggest potential variable in our financial model is the ability of the company to commercialize its 3 main products under development. It is these products and their sales that are ultimately how PAVmed will be able to finally be able to generate revenue. If the company can make significant progress towards these commercialization goals, then revenue and earnings will likely be able to grow significantly. However, if the company has difficulties in making progress towards development and commercialization, then revenue and profitability may not be achieved or will likely grow at a moderate rate or even not at all. Even after device approvals (which it currently has for its 3 main products) or expanded approvals (for other usage or markets), PAVmed faces a big challenge to successfully commercialize its products.

The company's balance sheet had ~\$7 million in cash and \$16 million in debt as of June 2020. In August 2020 (Q3), the company raised \$7 million in convertible notes (2 years at 7.875% with a conversion price of \$5.00/share). The company should have enough cash through Q4 2020, but will likely need to raise additional cash to fund its operations by Q1 2021.

Exhibit 21: PAVmed's Key Financial Metrics

Recent Share Price (11/4/20)	\$ 1.82
52-Weeks Share Price (Low - High)	\$0.81 - 3.45
Shares Outstanding	50 million
Market Capitalization	\$91 million
Enterprise Value	\$100 million
Cash (6/30/20)	\$7 million
Debt (6/30/20)	\$16 million
2019A Pro forma Net loss	\$12 million
2019A EPS	\$ (0.39)
2020E Pro forma Net loss	\$20 million
2020E EPS	\$ (0.42)

Source: Company reports and Ascendant Capital Markets estimates.

Exhibit 22: Consensus Expectations

	Revenue (mils)			EPS	
	2020E	2021E		2020E	2021E
Q1 Mar	\$0A		Q1 Mar	\$(0.10)A	
Q2 Jun	\$0A		Q2 Jun	\$(0.09)A	
Q3 Sep	\$0E		Q3 Sep	\$(0.11)E	
Q4 Dec	\$0E		Q4 Dec	\$(0.11)E	
Total	\$0E	\$7.2E	Total	\$(0.42)E	\$(0.42)E

*Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

Source: Company report, Thomson Reuters, and Ascendant Capital Markets estimates

FINANCIAL MODEL

PAVmed Inc.

Income Statement (\$ mils)	Mar-18	Jun-18	Sep-18	Dec-18	2018	Mar-19	Jun-19	Sep-19	Dec-19	2019	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Total Revenue	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.450	1.050	1.700	3.300
<u>Cost of Revenues</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.020</u>	<u>0.090</u>	<u>0.210</u>	<u>0.340</u>	<u>0.660</u>
Gross Profit	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080	0.360	0.840	1.360	2.640
Research and development	0.563	1.149	1.173	1.368126	4.253	1.451	1.405	1.519	2.255	6.630	2.628	2.133	2.100	2.100	8.961	2.200	2.200	2.200	2.200	8.800
General and administrative	1.380	1.590	1.396	1.943768	6.310	1.693	1.914	1.724	2.334	7.665	2.625	2.881	3.000	3.000	11.506	3.200	3.100	3.400	3.500	13.200
<u>Restructuring and other</u>					<u>0.000</u>					<u>0.000</u>					<u>0.000</u>					<u>0.000</u>
Total operating expenses	1.944	2.739	2.569	3.312	10.563	3.144	3.319	3.244	4.589	14.295	5.253	5.014	5.100	5.100	20.467	5.400	5.300	5.600	5.700	22.000
Operating income (loss)	(1.944)	(2.739)	(2.569)	(3.312)	(10.563)	(3.144)	(3.319)	(3.244)	(4.589)	(14.295)	(5.253)	(5.014)	(5.100)	(5.100)	(20.467)	(5.320)	(4.940)	(4.760)	(4.340)	(19.360)
Interest income (expense)	(0.500)	(0.500)	(0.708)	(0.684)	(2.392)				(0.033)	(0.033)	(0.052)		(0.324)	(0.464)	(0.840)	(0.464)	(0.464)	(0.464)	(0.464)	(1.856)
Other income (expense)	(0.971)	(1.890)	(0.035)	(2.900)	(5.795)	(0.456)	(0.341)	0.091	(1.693)	(2.399)	(9.240)	(0.635)	0.000	0.000	(9.875)	0.000	0.000	0.000	0.000	0.000
Income before income taxes	(3.415)	(5.129)	(3.311)	(6.896)	(18.751)	(3.600)	(3.660)	(3.153)	(6.314)	(16.727)	(14.545)	(5.649)	(5.424)	(5.564)	(31.182)	(5.784)	(5.404)	(5.224)	(4.804)	(21.216)
<u>Income taxes</u>					<u>0.000</u>					<u>0.000</u>					<u>0.000</u>					<u>0.000</u>
Net income (loss)	(3.415)	(5.129)	(3.311)	(6.896)	(18.751)	(3.600)	(3.660)	(3.153)	(6.314)	(16.727)	(14.545)	(5.649)	(5.424)	(5.564)	(31.182)	(5.784)	(5.404)	(5.224)	(4.804)	(21.216)
<u>Nonrecurring/noncash adjustments</u>	<u>1.744</u>	<u>0.870</u>	<u>1.102</u>	<u>4.003</u>	<u>7.719</u>	<u>1.087</u>	<u>0.877</u>	<u>0.430</u>	<u>2.433</u>	<u>4.827</u>	<u>10.076</u>	<u>1.435</u>			<u>11.511</u>					<u>0.000</u>
Net income (pro forma)	(1.671)	(4.259)	(2.209)	(2.893)	(11.032)	(2.513)	(2.783)	(2.723)	(3.881)	(11.900)	(4.469)	(4.214)	(5.424)	(5.564)	(19.671)	(5.784)	(5.404)	(5.224)	(4.804)	(21.216)
EBITDA																				
Shares, Basic	16.5	16.5	26.5	26.6	22.3	27.1	27.6	31.0	33.2	30.2	43.5	44.8	49.6	50.1	47.0	50.6	50.7	50.8	50.9	50.8
Shares, Diluted	16.5	16.5	26.5	26.6	22.3	27.1	27.6	31.0	33.2	30.2	43.5	44.8	49.6	50.1	47.0	50.6	50.7	50.8	50.9	50.8
EPS Basic (pro forma)	(\$0.10)	(\$0.26)	(\$0.08)	(\$0.11)	(\$0.50)	(\$0.09)	(\$0.10)	(\$0.09)	(\$0.12)	(\$0.39)	(\$0.10)	(\$0.09)	(\$0.11)	(\$0.11)	(\$0.42)	(\$0.11)	(\$0.11)	(\$0.10)	(\$0.09)	(\$0.42)
EPS Diluted (pro forma)	(\$0.10)	(\$0.26)	(\$0.08)	(\$0.11)	(\$0.50)	(\$0.09)	(\$0.10)	(\$0.09)	(\$0.12)	(\$0.39)	(\$0.10)	(\$0.09)	(\$0.11)	(\$0.11)	(\$0.42)	(\$0.11)	(\$0.11)	(\$0.10)	(\$0.09)	(\$0.42)
Margins																				
Gross margin																80%	80%	80%	80%	80%
Research and development																2200%	489%	210%	129%	267%
General and administrative																3200%	689%	324%	206%	400%
Operating margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	#####	#####	-453%	-255%	-587%
Tax rate, GAAP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Net margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	#####	#####	-498%	-283%	-643%
YY % change																				
Total Revenue																				
Gross margin																				
Research and development						158%	22%	30%	65%	56%	81%	52%	38%	-7%	35%	-16%	3%	5%	5%	-2%
General and administrative						23%	20%	24%	20%	21%	55%	51%	74%	29%	50%	22%	8%	13%	17%	15%
Operating income (loss)						62%	21%	26%	39%	35%	67%	51%	57%	11%	43%	1%	-1%	-7%	-15%	-5%
Net income (loss)						5%	-29%	-5%	-8%	-11%	304%	54%	72%	-12%	86%	-60%	-4%	-4%	-14%	-32%
EPS Diluted (pro forma)						-8%	-61%	5%	7%	-20%	11%	-7%	25%	-5%	6%	11%	13%	-6%	-15%	0%

Source: Company reports and Ascendant Capital Markets estimates.

PAVmed Inc.

Balance Sheet (\$ mils)	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	3.631	11.138	9.242	8.222	4.190	6.908	4.098	6.219	8.731	7.080	9.148	4.076	(1.216)	(6.128)	(10.860)	(15.172)
Short term investments											0.000	0.000	0.000	0.000	0.000	0.000
Deferred income taxes											0.000	0.000	0.000	0.000	0.000	0.000
Prepaid expenses and other	0.114	0.087	0.120	0.238	0.129	0.098	0.257	0.328	0.692	1.074	1.074	1.074	1.074	1.074	1.074	1.074
Total current assets	3.745	11.225	9.362	8.460	4.320	7.006	4.355	6.547	9.423	8.154	10.222	5.150	(0.142)	(5.054)	(9.786)	(14.098)
Property and equipment, net	0.014	0.013	0.037	0.036	0.036	0.055	0.051				0.036	0.072	0.108	0.144	0.180	0.216
Intangibles, net											0.000	0.000	0.000	0.000	0.000	0.000
Deferred income tax											0.000	0.000	0.000	0.000	0.000	0.000
Other								0.693	0.691	0.728	0.728	0.728	0.728	0.728	0.728	0.728
Total assets	3.759	11.237	9.398	8.496	4.356	7.060	4.406	7.240	10.114	8.882	10.986	5.950	0.694	(4.182)	(8.878)	(13.154)
Liabilities and stockholders' equity																
Accounts payable	0.768	1.297	1.638	1.739	1.386	1.427	1.800	2.353	4.157	3.646	3.646	3.646	3.646	3.646	3.646	3.646
Accrued expenses	0.493	0.668	0.940	1.331	0.387	0.722	0.541	1.386	1.523	1.541	1.541	1.541	1.541	1.541	1.541	1.541
Deferred income tax											0.000	0.000	0.000	0.000	0.000	0.000
Other										0.300	0.300	0.300	0.300	0.300	0.300	0.300
Short term debt		2.750	3.256	7.903	8.251	6.790	4.472	8.139	20.663	16.200	16.200	16.200	16.200	16.200	16.200	16.200
Total current liabilities	1.261	4.715	5.835	10.973	10.024	8.940	6.813	11.878	26.343	21.687	21.687	21.687	21.687	21.687	21.687	21.687
Deferred income taxes											0.000	0.000	0.000	0.000	0.000	0.000
Warrant liabilities											0.000	0.000	0.000	0.000	0.000	0.000
Other long term liabilities											0.000	0.000	0.000	0.000	0.000	0.000
Long term debt	2.250										7.000	7.000	7.000	7.000	7.000	7.000
Total other liabilities	2.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.000	7.000	7.000	7.000	7.000	7.000
Preferred stock	1.707	1.707	1.967	2.032	2.096	2.162	2.228	2.296	2.322	2.393	2.393	2.393	2.393	2.393	2.393	2.393
Common stock	0.018	0.027	0.027	0.027	0.027	0.034	0.037	0.041	0.044	0.048	0.576	1.104	1.632	2.160	2.688	3.216
Additional paid-in capital	19.983	31.385	31.757	32.619	33.026	40.519	43.252	47.554	50.896	60.147	60.147	60.147	60.147	60.147	60.147	60.147
Retained earnings	(21.460)	(26.525)	(30.096)	(36.993)	(40.592)	(44.251)	(47.403)	(53.715)	(68.259)	(73.908)	(79.332)	(84.896)	(90.680)	(96.084)	(101.308)	(106.112)
Accumulated other comprehensive income																
Minority Interest		(0.072)	(0.091)	(0.162)	(0.226)	(0.343)	(0.520)	(0.814)	(1.232)	(1.485)	(1.485)	(1.485)	(1.485)	(1.485)	(1.485)	(1.485)
Total stockholders' equity	0.248	6.522	3.564	(2.476)	(5.669)	(1.879)	(2.407)	(4.638)	(16.229)	(12.805)	(17.701)	(22.737)	(27.993)	(32.869)	(37.565)	(41.841)
Total stockholders' equity and liabili	3.759	11.237	9.398	8.496	4.356	7.060	4.406	7.240	10.114	8.882	10.986	5.950	0.694	(4.182)	(8.878)	(13.154)

Balance Sheet Drivers

	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Book & Cash Value (per share)																
Book Value per Share (diluted)	0.01	0.39	0.13	(0.09)	(0.21)	(0.07)	(0.08)	(0.14)	(0.37)	(0.29)	(0.36)	(0.45)	(0.55)	(0.65)	(0.74)	(0.82)
Cash per Share (diluted)	0.22	0.67	0.35	0.31	0.15	0.25	0.13	0.19	0.20	0.16	0.18	0.08	(0.02)	(0.12)	(0.21)	(0.30)
Net cash per Share (diluted)	0.08	0.51	0.23	0.01	(0.15)	0.00	(0.01)	(0.06)	(0.27)	(0.20)	(0.28)	(0.38)	(0.48)	(0.58)	(0.67)	(0.75)

Source: Company reports and Ascendant Capital Markets estimates

PAVmed Inc.

Cash Flow Statement (\$ mils)	Mar-18	Jun-18	Sep-18	Dec-18	2018	Mar-19	Jun-19	Sep-19	Dec-19	2019	Mar-20	Jun-20	Sep-20	Dec-20	2020	Mar-21	Jun-21	Sep-21	Dec-21	2021
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Cash flow from operating activities																				
Net income	(2.825)	(5.147)	(3.279)	(6.922)	(18.173)	(3.704)	(3.739)	(3.271)	(6.554)	(17.268)	(14.911)	(5.844)	(5.424)	(5.564)	(31.743)	(5.784)	(5.404)	(5.224)	(4.804)	(21.216)
Depreciation	0.002	0.002	0.003	0.004	0.010	0.003	0.004	0.003	0.004	0.014	0.003	0.006	0.006	0.006	0.021	0.006	0.006	0.006	0.006	0.024
Amortization					0.000					0.000					0.000					0.000
Debt related amortization expen	0.850	1.076	(0.412)	2.092	3.606	0.001	0.259	0.748	0.824	1.831	1.188	2.749			3.937					0.000
Stock comp	0.271	0.304	0.324	0.329	1.229	0.459	0.388	0.330	0.393	1.571	0.344	0.528	0.528	0.528	1.928	0.528	0.528	0.528	0.528	2.112
Deferred income taxes					0.000					0.000					0.000	0.000	0.000	0.000	0.000	0.000
Change in fair value of warrant l	0.032	1.141	1.118	0.903	3.194	0.559	0.161	(0.720)	0.559	0.559	8.008	(2.120)			5.888					0.000
Writedowns and impairments					0.000					0.000					0.000					0.000
Other gains/losses					0.000					0.000					0.000					0.000
Other					0.000					0.000		0.001			0.001					0.000
Changes in operating assets and liabilities:					0.000					0.000										0.000
Prepaid expenses & other curre	(0.025)	0.024	(0.030)	(0.118)	(0.150)	0.109	0.031	(0.159)	(0.071)	(0.090)	(0.364)	(0.383)	0.000	0.000	(0.747)	0.000	0.000	0.000	0.000	0.000
Other assets					0.000					0.000					0.000	0.000	0.000	0.000	0.000	0.000
Accounts payable	(0.097)	0.530	0.339	0.101	0.872	(0.353)	0.041	0.374	0.552	0.613	1.804	(0.510)	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000
Accrued expenses	(0.407)	0.369	0.070	0.592	0.624	(0.944)	0.336	(0.182)	0.846	0.056	0.137	0.018	0.000	0.000	0.155	0.000	0.000	0.000	0.000	0.000
Other liabilities					0.000					(0.643)					0.000	0.000	0.000	0.000	0.000	0.000
Net cash (used in) provided by	(2.200)	(1.702)	(1.867)	(3.019)	(8.788)	(3.870)	(2.519)	(2.878)	(4.090)	(13.357)	(3.791)	(5.555)	(4.890)	(5.030)	(19.266)	(5.250)	(4.870)	(4.690)	(4.270)	(19.080)
Cash flow from investing activities																				
Purchases of property and equipment			(0.023)	(0.003)	(0.027)	(0.003)	(0.022)	(0.000)	(0.002)	(0.027)	(0.002)	(0.042)	(0.042)	(0.042)	(0.128)	(0.042)	(0.042)	(0.042)	(0.042)	(0.168)
Purchases of short-term investments					0.000					0.000					0.000					0.000
Acquisitions					0.000					0.000					0.000					0.000
Other					0.000					0.000					0.000					0.000
Net cash used in investing activ	0.000	0.000	(0.023)	(0.003)	(0.027)	(0.003)	(0.022)	(0.000)	(0.002)	(0.027)	(0.002)	(0.042)	(0.042)	(0.042)	(0.128)	(0.042)	(0.042)	(0.042)	(0.042)	(0.168)
Cash flow from financing activities																				
Issuance of debt				2.000	2.000				6.300	6.300	6.300	4.000	7.000	0.000	17.300	0.000	0.000	0.000	0.000	0.000
Repayment of debt			(0.007)		(0.007)	(0.159)	(0.120)	(0.000)	(0.086)	(0.365)	(0.138)	(0.054)			(0.192)					0.000
Issuance of stock	4.275	9.209	0.001	0.003	13.488		5.379	(0.000)	0.000	5.379			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Proceeds from stock option exe	0.021				0.021			0.067		0.067	0.143				0.143					0.000
Other					0.000					0.000					0.000					0.000
Dividends and distributions					0.000					0.000					0.000					0.000
Cash provided by (used in) fina	4.296	9.209	(0.006)	2.003	15.502	(0.159)	5.259	0.067	6.214	11.382	6.305	3.946	7.000	0.000	17.251	0.000	0.000	0.000	0.000	0.000
Effect of exchange rate on cash					0.000					0.000					0.000					0.000
Net increase (decrease) in cash	2.09567	7.507	(1.896)	(1.019)	6.687	(4.032)	2.718	(2.811)	2.122	(2.003)	2.512	(1.651)	2.068	(5.072)	(2.143)	(5.292)	(4.912)	(4.732)	(4.312)	(19.248)
Beginning cash and equivalents	1.535	3.631	11.138	9.242	1.535	8.222	4.190	6.908	4.098	8.222	6.219	8.731	7.080	9.148	6.219	4.076	(1.216)	(6.128)	(10.860)	4.076
Ending cash and equivalents	3.631	11.138	9.242	8.222	8.222	4.190	6.908	4.098	6.219	6.219	8.731	7.080	9.148	4.076	4.076					(15.172)

Source: Company reports and Ascendant Capital Markets estimates

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PAVmed Inc.

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Ascendant Capital Markets, LLC Rating System

BUY: We expect the stock to provide a total return of 15% or more within a 12-month period.

HOLD: We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

SELL: We expect the stock to have a negative total return of more than 15% within a 12-month period.

Total return is defined as price appreciation plus dividend yield.

Ascendant Capital Markets, LLC Rating System

Prior to January 31, 2014, ASCM used the following rating system:

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Buy: We expect the stock to provide a total return of between 10% and 30% within a 12-month period.

Neutral: We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.

Sell: We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

Speculative Buy: This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

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Rating	Count	Percent	Investment Banking Services Past 12 months	
			Count	Percent
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Sell	0	0%	0	0%
Total	39	100%	14	36%

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