United States
Healthcare

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ENDRA Life Sciences Inc.

Initiating Coverage with BUY and $4.50 Target

Strong product potential for its TAEUS ultrasound technology to diagnose large market of NAFLD. We believe expected positive milestones, clinical data, and product launch over the next year to be positive for stock.

COVERAGE INITIATION

Rating: BUY

Ticker: NDRA

Price: $1.52

Target: $4.50

Initiating with BUY: We are initiating coverage of ENDRA Life Sciences with a BUY rating. ENDRA is a clinical-stage medical device company focused on developing enhanced ultrasound technologies for medical imaging.

Focused on TAEUS development: ENDRA has one main medical device candidate, the Thermo Acoustic Enhanced UltraSound (TAEUS) platform to enable clinicians to visualize human tissue composition, function and temperature in ways previously possible only with CT and MRI, but at a fraction of the cost and at the point-of-care.

First TAEUS application for NAFLD: The company plans to launch its first TAEUS application to measure fat in the liver, which is used for early detection and monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD).

Large market potential: In 2011, over 1.4 billion people were affected by NAFLD/NASH around the world. Left untreated, NAFLD cases can progress to NASH (a condition in which liver fat causes inflammation), liver fibrosis (in which liver inflammation causes scar tissue), cirrhosis (late stage of scarring (fibrosis)), and ultimately patients may develop liver cancer. Despite the increased incidence of NAFLD, there are no low-cost, accurate, and safe methods for measuring fat in the liver. TAEUS technology should enable to diagnose NAFLD earlier and monitor patients with related liver diseases more accurately and cost-effectively than is possible with existing technology.

Plan to file for approvals soon: In the U.S., ENDRA expects its TAEUS products to be classified as Class II medical devices and require FDA authorization prior to marketing. In the E.U., ENDRA will apply for a CE mark for its applications (E.U. equivalent to FDA approval) so that it can market its products in the E.U. ENDRA expects an E.U. filing in Q2 2019 and a U.S. filing in mid-2019. ENDRA is planning for E.U. approval in mid-2019 and U.S. approval in late-2019 or early 2020, with product launches shortly thereafter.

But still early stage: ENDRA's recent financial performance is reflective of its developmental stage. The company does not provide specific quarterly financial guidance, but we believe ~$2 million is a reasonable near term quarterly burn rate. The company has a solid balance sheet with ~$6 million in cash and no debt as of December 2018. We believe ENDRA has enough cash to fund its operations through this year.

Clinical data can be catalyst: ENRDA anticipates receiving clinical data from its various trials (lead by the study at the Robarts Research Institute) over the next year. We believe strong positive data will likely be catalysts for the stock.

However, challenges exist: ENDRA operates in a highly competitive environment and competes against a wide range of other diagnostic and therapeutics technologies and existing standards of care.

Positive high risks versus rewards: Overall, concerns outweighed by growth prospects and valuation. Though we acknowledge that ENDRA's devices are nearing approvals and launch, there is still a long road to successful commercialization. However, we believe the ~billion dollars market potentials presents a high reward for the risks.

Current valuation attractive: We calculate a 12-month price target for shares of ENDRA to be $4.50 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 Ann Arbor, MI, ENDRA Life Sciences is a clinical-stage medical device company focused on developing enhanced ultrasound technologies (TAEUS) for medical imaging.

Stock Data

Exchange:	NasdaqCM
52-week Range:	$1.36 – 5.75
Shares Outstanding (million):	7
Market cap ($million):	$11
EV ($million):	$5
Debt ($million):	$0
Cash ($million):	$6
Avg. Daily Trading Vol. ($million):	~$1
Float (million shares):	7
Short Interest (million shares):	0.5
Dividend, annual (yield):	$0 (NA%)

Revenues (US$ million)

	2018A (Cur.)	2019E (Cur.)	2020E (Cur.)
Q1 Mar	0.0A	0.0E	0.5E
Q2 Jun	0.0A	0.0E	0.7E
Q3 Sep	0.0A	0.1E	0.8E
Q4 Dec	0.0A	0.3E	1.0E
Total	**0.0A**	**0.4E**	**3.0E**
EV/Revs	**N/A**	12.5x	1.7x

Earnings per Share (pro forma)

	2018A (Cur.)	2019E (Cur.)	2020E (Cur.)
Q1 Mar	(0.72)A	(0.30)E	(0.30)E
Q2 Jun	(0.47)A	(0.29)E	(0.28)E
Q3 Sep	(0.70)A	(0.31)E	(0.28)E
Q4 Dec	(0.36)A	(0.31)E	(0.26)E
Total	**(2.17)A**	**(1.21)E**	**(1.12)E**
P/E	N/A	N/A	N/A

Important Disclosures

Ascendiant 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 22.

Exhibit 1: ENDRA Life Sciences Stock Price (2-years since IPO in June 2017)

Source: Nasdaq.com

INVESTMENT THESIS

We are initiating coverage of ENDRA Life Sciences with a BUY rating and a 12-month price target of $4.50.

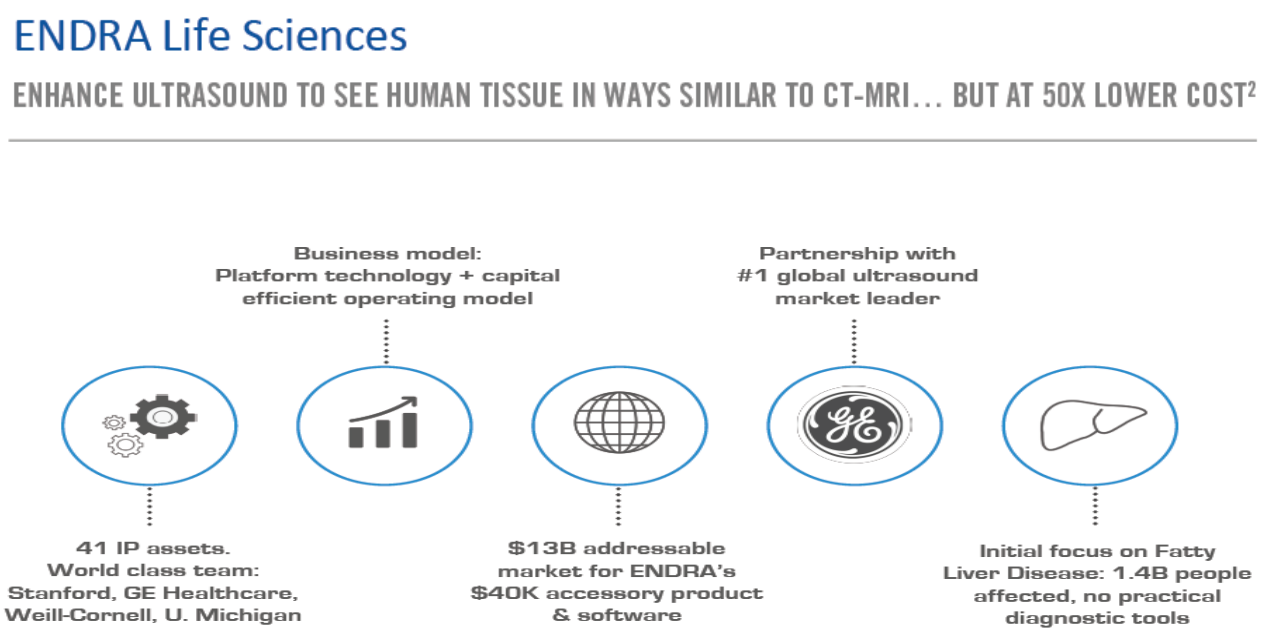
Based in Ann Arbor, MI, ENDRA Life Sciences is a clinical-stage medical device company focused on developing enhanced ultrasound technologies for medical imaging. ENDRA is developing a Thermo Acoustic Enhanced UltraSound (TAEUS) platform to enable clinicians to visualize human tissue composition, function and temperature in ways previously possible only with CT and MRI, but at a fraction of the cost and at the point-of-care.

Building on its expertise and experience in thermoacoustics, ENDRA has developed a next-generation technology platform, the Thermo Acoustic Enhanced Ultrasound or TAEUS. TAEUS is intended to enhance the capability of clinical ultrasound technology and support the diagnosis and treatment of a number of medical conditions that currently require the use of expensive or impractical CT (computed tomography) scans or MRI (magnetic resonance imaging) or other costly invasive technologies and procedures (such as biopsies).

The company plans to launch its first TAEUS application to focus on measuring fat in the liver, which is used for early detection and monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD). In the U.S., ENDRA expects its TAEUS products to be classified as Class II medical devices and require FDA authorization prior to marketing. In the E.U., ENDRA will apply for a CE mark for its applications (E.U. equivalent to FDA approval) so that it can market its products in the E.U. ENDRA expects an E.U. filing in Q2 2019 and a U.S. filing in

mid-2019. ENDRA is planning for E.U. approval in mid-2019 and U.S. approval in late-2019 or early 2020, with product launches shortly thereafter.

Exhibit 2: ENDRA Investment Highlights



Source: Company reports.

ENDRA's TAEUS technology solution uses a pulsed energy source – radio-frequency (RF) – to generate ultrasonic waves in tissue. These waves are then detected with ultrasound equipment and used to create high-contrast images using its proprietary algorithms. TAEUS technology stimulate tissues, using a small fraction (less than 1%) of the energy that would be transmitted into the body during an MRI scan.

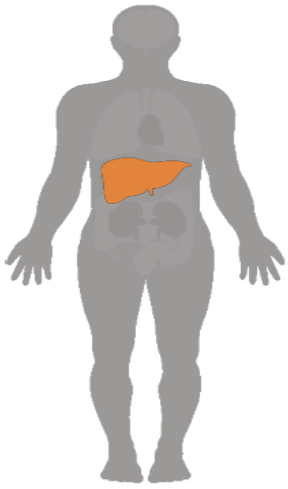
ENDRA's first TAEUS platform application will be quantifying fat in the liver and stage progression of NAFLD (non-alcoholic fatty liver disease) which, untreated, can progress to Nonalcoholic Steatohepatitis (NASH), cirrhosis, and liver cancer. In 2011, over 1.4 billion people were affected by NAFLD/NASH around the world. Left untreated, NAFLD cases can progress to NASH (a condition in which liver fat causes inflammation and decreased liver function), liver fibrosis (in which liver inflammation causes scar tissue), cirrhosis (late stage of scarring (fibrosis)), and ultimately patients may develop liver cancer. Because of the increased incidence of obesity, hepatitis and diabetes throughout the world, NAFLD has become the most common chronic liver disease and a key cause of cirrhosis and liver cancer.

Despite the increased incidence of NAFLD, there are no low-cost, accurate, and safe methods for measuring fat in the liver. TAEUS technology should enable primary care physicians, radiologists, and hepatologists (liver specialist physician) to diagnose NAFLD earlier and monitor patients with related liver diseases more accurately and cost-effectively than is possible with existing technology.

Exhibit 3: ENDRA's TAEUS Market Opportunity

ENDRA Opportunity #1: Non-Alcoholic Fatty Liver Disease (NAFLD)

QUANTIFY LIVER FAT INEXPENSIVELY & NON-INVASIVELY AT EARLIEST STAGE OF LIVER DISEASE



1.4 BILLION PEOPLE AFFECTED GLOBALLY[1]

- Drivers: obesity, diabetes, Hep-C, drugs
- Often asymptomatic, needs to be monitored
- ~30%[2] of NAFLD cases progress to NASH, then Fibrosis, Cirrhosis, Cancer
- Total annual direct medical costs for NAFLD: $103B in the U.S[3]
- Median Medicare inpatient charge per NAFLD patient: $36K[4]
- By 2025, NAFLD likely the greatest root cause of liver transplants[5]

CURRENT DIAGNOSTIC & MONITORING TOOLS ARE IMPRACTICAL

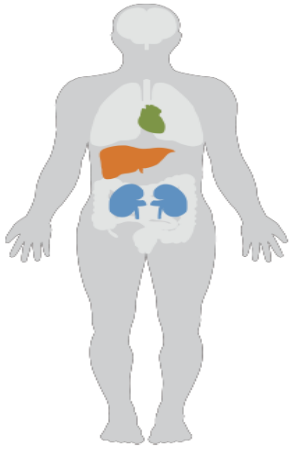
Expensive MRI, invasive surgical biopsy

> "The ability to accurately quantify fat in the liver, at the point-of-care with ENDRA's TAEUS ultrasound could be revolutionary."

Xiang Jing M.D
Deputy Chairman, Ultrasound Committee
China Medical Association

ENDRA Opportunity #2: Guidance of energy-based surgery

INEXPENSIVELY MAP THE HEAT SIGNATURE OF TISSUE ABLATION IN REAL-TIME ON ULTRASOUND

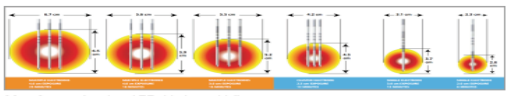


5+ MILLION RF ABLATION PROCEDURES ANNUALLY[1]

- Growing 20% CAGR
- Driven by aging-related diseases: cancer, pain, cardiology

CURRENT TOOLS ARE INACCURATE OR IMPRACTICAL

Printed guidelines, expensive MRI



Manufacturer's printed RF ablation guidelines

> "Doctors aren't always sure where the (thermo-ablative) heat is going. They could hit a vessel or another heat-sink in the body and the academic models fall apart and treatment is ineffective."

Jonathan Rubin, M.D
Head for Ultrasound & Abdominal Interventional Radiology,
The University of Michigan

Source: Company reports.

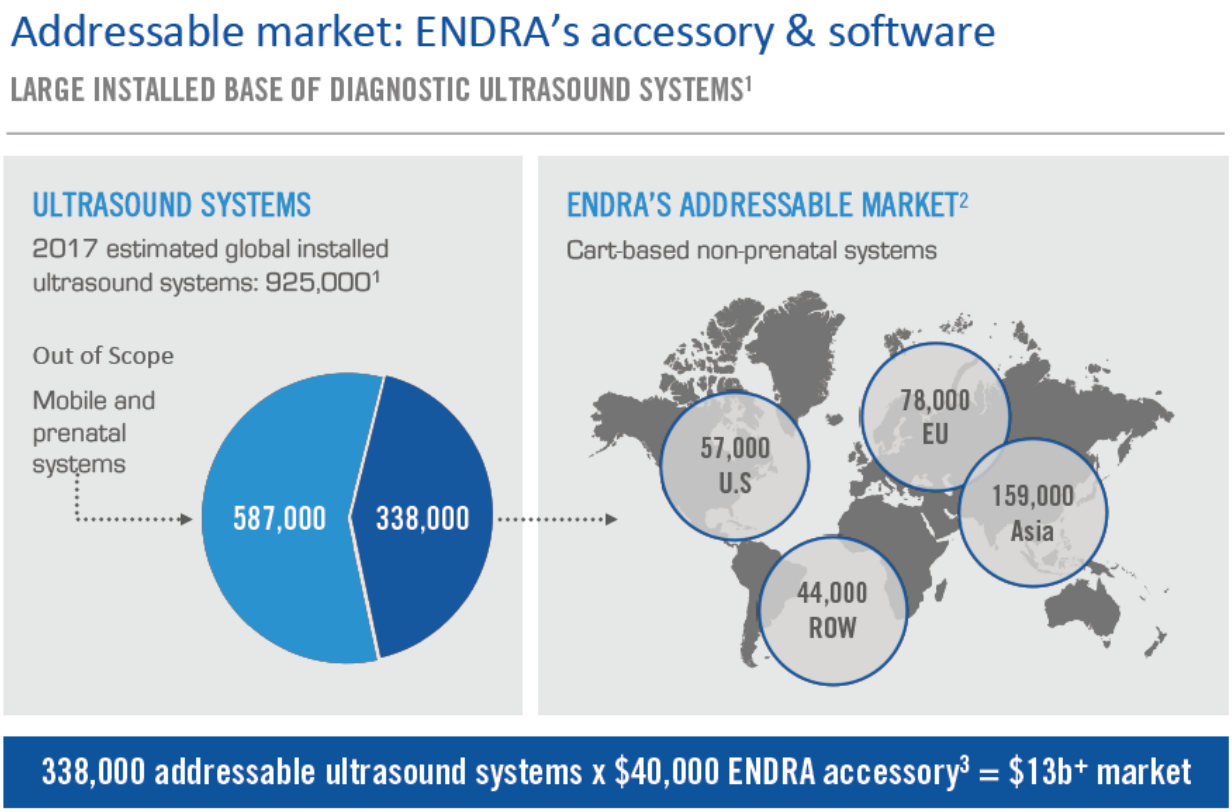
ENDRA plans to launch its first TAEUS application to measure fat in the liver soon (in E.U. and U.S. by mid-2019 to early 2020). Longer term, ENDRA plans to use its TAEUS platform for applications including temperature monitoring of thermoablative surgery, vascular imaging, and tissue perfusion.

ENDRA plans to initially market TAEUS as an ultrasound accessory (added to existing ultrasound systems) and at a price of $40,000 to $50,000 (for a one-time licensing fee). Longer term, the company plans for its TAEUS offerings to be implemented via a hardware

platform (installed as part of OEM ultrasound machines) that can run multiple individual software applications that the company offers. ENDRA believes its addressable market for its TAEUS applications is ~338,000 cart-based ultrasound systems currently in use throughout the world.

ENDRA's recent financial performance is reflective of its developmental stage. However, the company plans to begin commercializing its TAEUS application to measure fat in the liver by mid-2019 in E.U. and late 2019/early 2020 in the U.S. ENDRA's share price YTD has been relatively flat (~+1% from $1.50 on December 31, 2018), but we believe that there are near term catalysts over the next year that can drive the stock (E.U. and U.S. approvals, positive study data, and product launch/initial commercialization).

Exhibit 4: ENDRA's Addressable Markets



Source: Company reports.

The company has a solid balance sheet with ~$6 million in cash and no debt as of December 2018. We believe ENDRA has enough cash to fund its operations through this year, but we estimate that it will need to raise capital next year (estimated Q1 2020).

Our investment thesis factors in an uncertain medical device development process and very competitive industry which is offset by the very large potential upside opportunities created from a successful device. We believe that the current valuation for ENDRA has already factored in many of its risks (principally device approval 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 ENDRA.

We believe the current valuation is attractive.

Our $4.50 price target is based on a NPV analysis. Based on our expectations and assumptions, we calculate a 12-month price target for shares of ENDRA to be $4.50, representing 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 ENDRA 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

ENDRA 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, 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. Because ENDRA's main TAEUS product is still in process for regulatory approval (expected E.U. filing in Q2 2019 and U.S. filing in mid-2019), there is always the risk that it does not receive the required regulatory approvals. 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

ENDRA aims for its TAEUS product to allow clinicians to visualize human tissue composition, function and temperature in ways similar with CT and MRI, but at a fraction of the cost (~50x less) and at a more practical and point-of-care basis. While ultrasound technologies and diagnostic equipment are commonly used around the world (~$4 billion global market in 2017), ENDRA will still need to educate its target market and to demonstrate superiority (more effective and/or lower costs) of its TAEUS product compared with existing standards of care. ENDRA is planning for E.U. approval in mid-2019 and U.S. approval in late-2019 or early 2020, with product launches shortly thereafter. Even if ENDRA receives approval for its products, there are still 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

ENDRA 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 or diagnostics as the company's main TAEUS product. 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. Even if ENDRA were to be successful with its E.U. CE Marking (approval for launch in the E.U.) or FDA 510(k) clearance (approval for launch in the U.S.) for TAEUS, its products will have to compete with existing or new standards of care (particularly against CT and MRI).

Concentrated Product Pipeline

The company is currently developing just one novel technology platform, the TAEUS enhanced ultrasound technologies for medical imaging. TAEUS initial application is planned for the measuring fat in the liver, but longer term is planned to be a platform for a variety of usage, including temperature monitoring of thermoablative surgery, vascular imaging, and tissue perfusion. However, if ENDRA were to experience difficulties with general development of TAEUS or for its first application for measuring fat in the liver, 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).

Economic Uncertainty

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 improved significantly since and are currently strong, the global macroeconomic environment can change any time. Further economic weakness may result in depressed consumer spending levels; this may have a negative impact on ENDRA, its business partners, and consumers.

Capital Markets Risks

We believe ENDRA has enough cash to fund its operations through this year, but we estimate that it will need to raise capital next year (estimated Q1 2020). While the company plans to start commercialization of TAEUS in mid-2019, we believe that it will be at least a year 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 $1.36 – 5.75) in ENDRA's share price may make capital raising much more difficult and expensive.

VALUATION

We are initiating coverage of ENDRA with a BUY rating and a 12-month price target of $4.50, which is based on a NPV analysis. As the company is a clinical stage medical device development company, it currently generates minimal revenues 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 ENDRA which is still in clinical trials and early product commercialization with its 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), though our valuation is currently only focused on its TAEUS application for measuring fat in the liver. We apply a high discount rate and about average probability of success to capture the uncertainties associated generally with drugs/devices in development. 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 $4.50, which we believe appropriately balances out the company's risks with its high growth prospects.

ENDRA's share price YTD has been relatively flat (~+1% from $1.50 on December 31, 2018), though it has been in a wide volatile range of $1.36 – 5.75 within the past year. However, we believe that there are near term catalysts that may drive the stock (particularly for key milestones expected in 2019/2020). As the company is likely to make significant progress (and milestones) in its device development and start product commercialization over the next year, we believe this will result in much improved visibility into future cash flows. We expect valuations for ENDRA to improve as visibility into cash flow generation becomes clearer, resulting in significant upside to the current share price.

Exhibit 5: Company Valuation (DCF)

Product	Estimated NPV	% of Success	Calculated NPV	Discount Rate	Estimated Annual Sales	% of Market Share	Market Potential per year
TAEUS	$ 43	75%	$ 58	39%	$ 23	5%	$ 450
Total	**$ 43**						

Estimated additional investments required	$	10
Current Value for existing shareholders	$	33
Shares Outstanding (mils)		7.4
Estimated Value per share	**$**	**4.50**

Source: Ascendiant Capital Markets estimates

COMPANY

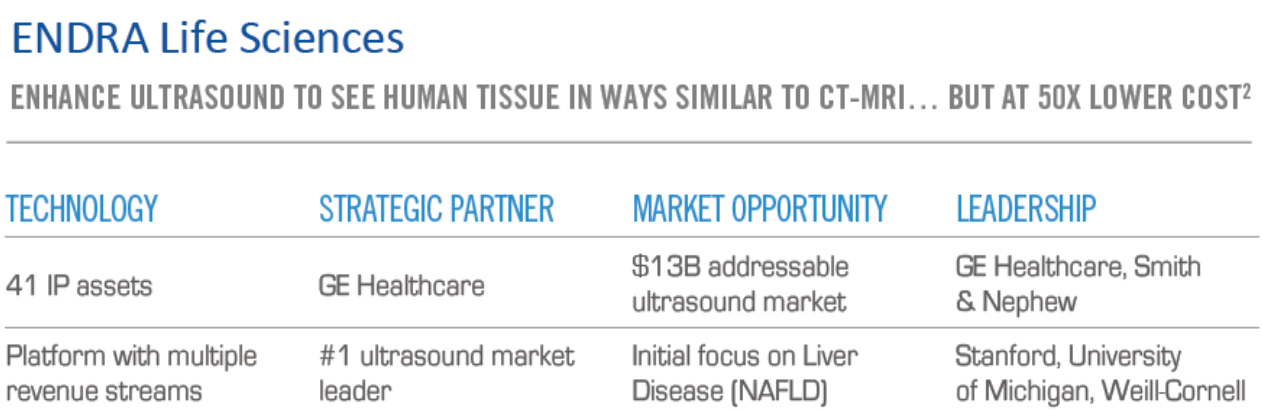
Based in Ann Arbor, MI, ENDRA Life Sciences is a clinical-stage medical device company focused on developing enhanced ultrasound technologies for medical imaging. ENDRA is developing a Thermo Acoustic Enhanced UltraSound (TAEUS) platform to enable clinicians to visualize human tissue composition, function and temperature in ways previously possible only with CT and MRI, but at a fraction of the cost and at the point-of-care.

In 2010, ENDRA began marketing and selling its Nexus 128 system, which combined light-based thermoacoustics and ultrasound to address the imaging needs of researchers studying disease models in pre-clinical applications. Building on this expertise in thermoacoustics, ENDRA has developed a next-generation technology platform, the Thermo Acoustic Enhanced Ultrasound or TAEUS. TAEUS is intended to enhance the capability of clinical ultrasound technology and support the diagnosis and treatment of a number of medical conditions that currently require the use of expensive or impractical CT (computed tomography) scans or MRI (magnetic resonance imaging) or other costly invasive technologies and procedures (such as biopsies).

The company's goal is to launch its first TAEUS application to focus on measuring fat in the liver, which is used for early detection and monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD). Longer term, ENDRA plans to use its TAEUS platform for applications including temperature monitoring of thermoablative surgery, vascular imaging, and tissue perfusion.

Originally founded in July 2007, the company completed its IPO in May 2017 (raising ~$9 million, selling 1.9 million shares at ~$5.00/share). As of December 31, 2018, the company had 11 employees, 8 of whom were primarily engaged in research and development activities.

Exhibit 6: ENDRA Overview



Source: Company reports.

MANAGEMENT TEAM

Francois Michelon, age 52, Chief Executive Officer and Chairman of the Board. Mr. Michelon joined ENDRA as Chairman and CEO in 2015. Mr. Michelon has over 20 years of healthcare technology experience in general management, operations, strategy and marketing across the diagnostic imaging, surgical instrument and dental sectors. From 2012 to 2014, Mr. Michelon served as VP of Global Marketing for the 3i division of Biomet (now Zimmer Biomet Holdings), a provider of oral reconstruction technologies. From 2004 to 2011, Mr. Michelon served as Group Director of Global Services and Visualization for Smith & Nephew plc's Advanced Surgical Devices division. From 1997 to 2004, Mr. Michelon worked at GE Healthcare in a variety of global marketing roles. Mr. Michelon received an MBA from Carnegie-Mellon University and a BA in Economics from the University of Chicago, and has also earned his Six Sigma Black Belt certification.

David Wells, age 55, Chief Financial Officer. Mr. Wells became CFO on an interim basis in 2014 and on a continuing basis in 2017. Mr. Wells has over 30 years of experience in finance, operations and administrative positions. While mainly focused on technology companies, Mr. Wells has also worked in the water treatment, supply-chain management, manufacturing, and professional services industries. Mr. Wells is the founder of Wells Compliance Group, a technology-based services firm supporting the timely GAAP-compliant financial reporting needs of publicly traded and private companies. These companies included Mount Tam Biotechnologies, Content Checked Holdings, LiveXLive Media, and Sionix Corporation. Mr. Wells holds an MBA from Pepperdine University and a BS in Finance and Entrepreneurship from Seattle Pacific University.

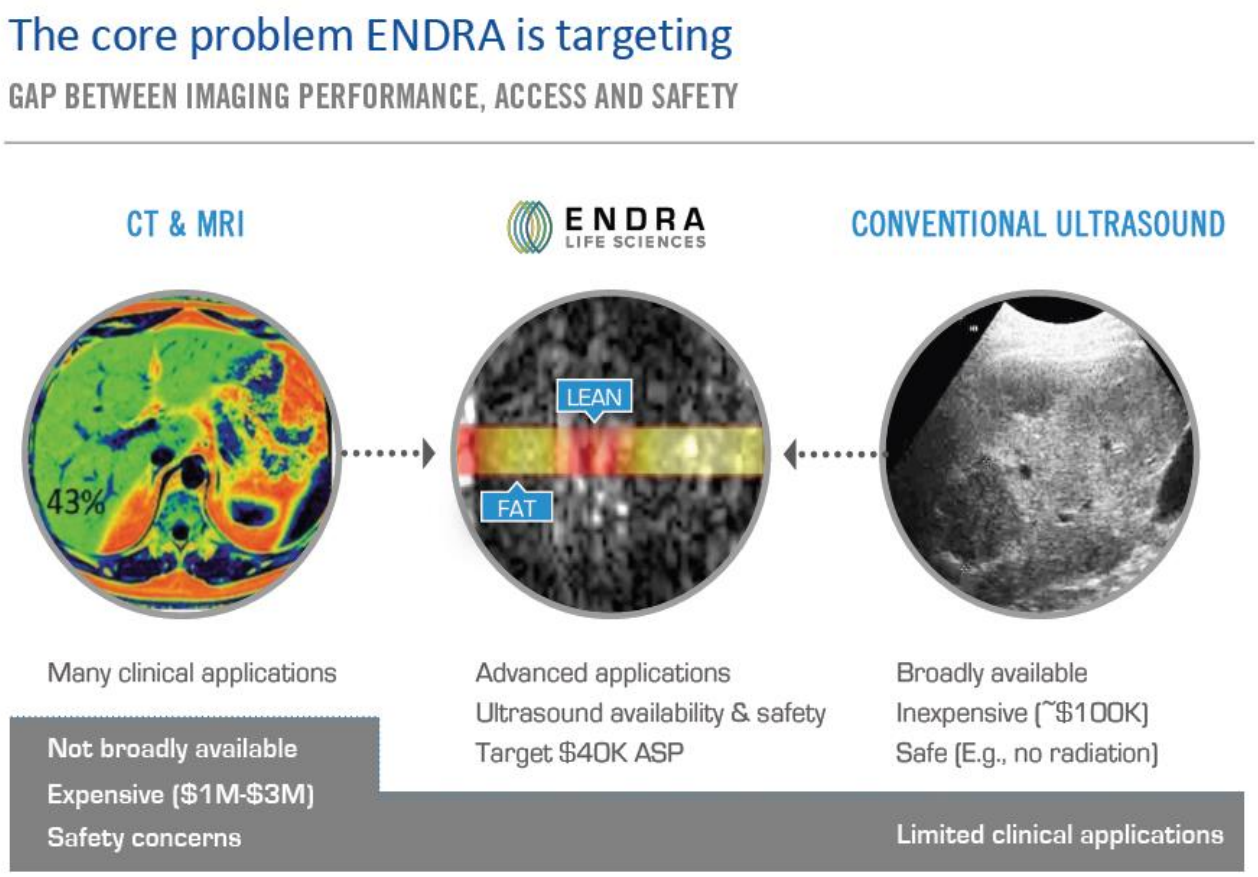
DEVICE PIPELINE

ENDRA is focused on developing enhanced ultrasound technologies for medical imaging. ENDRA is developing a Thermo Acoustic Enhanced UltraSound (TAEUS) platform to enable clinicians to visualize human tissue composition, function and temperature in ways previously possible only with CT and MRI, but at a fraction of the cost and at the point-of-care.

ENDRA has developed a next-generation technology platform, TAEUS, which is intended to enhance the capability of clinical ultrasound technology and support the diagnosis and treatment of a number of medical conditions that currently require the use of

expensive or impractical CT (computed tomography) scans or MRI (magnetic resonance imaging) or other costly invasive technologies and procedures (such as biopsies).

Exhibit 7: ENDRA Product Target

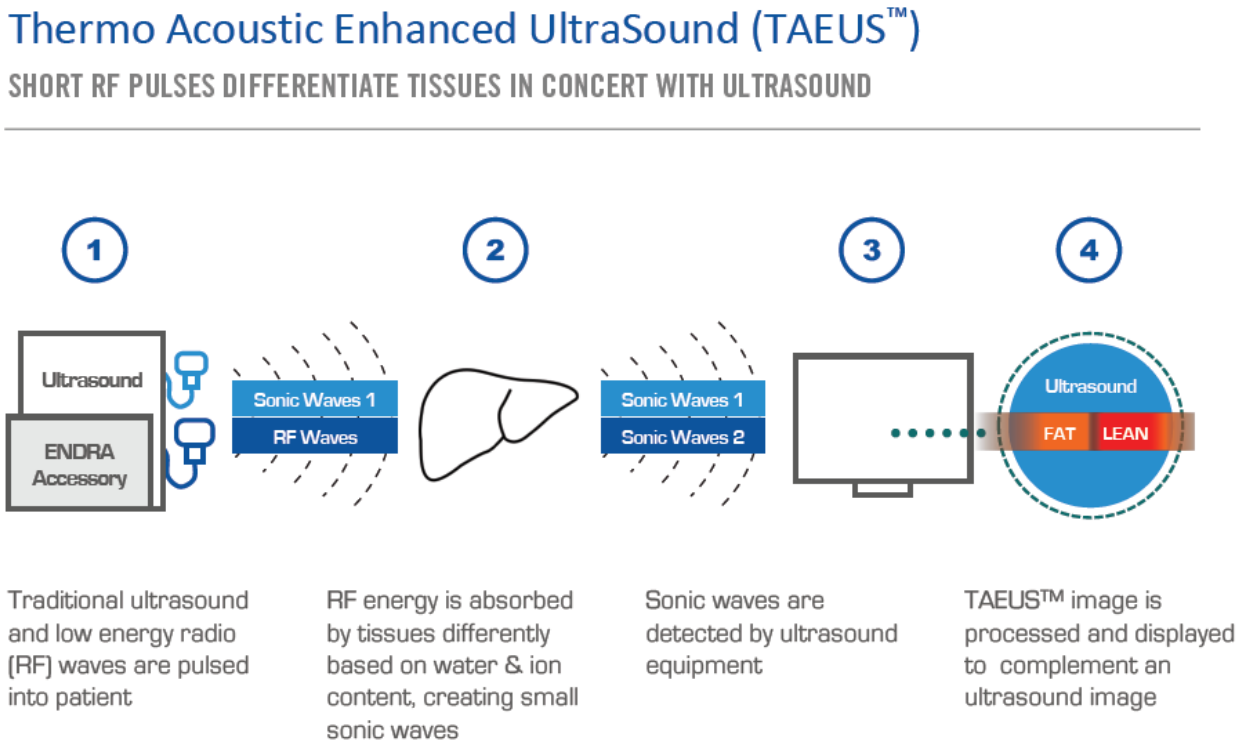


Source: Company reports.

ENDRA's TAEUS technology solution uses a pulsed energy source – radio-frequency (RF) – to generate ultrasonic waves in tissue. These waves are then detected with ultrasound equipment and used to create high-contrast images using its proprietary algorithms. Unlike conventional ultrasound, which creates images based on the scattering properties of tissue, thermoacoustic imaging provides tissue absorption maps of the pulsed energy, similar to those generated by CT scans.

TAEUS technology stimulate tissues, using a small fraction (less than 1%) of the energy that would be transmitted into the body during an MRI scan. The use of RF energy allows deep penetration into tissue, enabling the imaging of human anatomy at depths equivalent to those of conventional ultrasound. The RF pulses are absorbed by tissue and converted into ultrasound signals, which are detected by an external ultrasound receiver and a digital acquisition system that is part of the TAEUS system. The detected ultrasound is processed into images and displayed complementing conventional gray-scale ultrasound images.

Exhibit 8: TAEUS (Thermo Acoustic Enhanced UltraSound) Product



Source: Company reports.

Diagnostic imaging technologies such as CT (computed tomography) scans, MRI (magnetic resonance imaging), and ultrasound allow physicians to look inside a person's body to guide treatment or gather information about medical conditions such as broken bones, cancers, heart disease, or internal bleeding. The type of imaging technology used depends on a patient's symptoms and the part of the body being examined. CT technology is good for viewing bone injuries, diagnosing lung and chest problems, and detecting cancers. MRI technology is good at examining soft tissue in ligament and tendon injuries, spinal cord injuries, and brain tumors. CT scans can take as little as 5 minutes, while an MRI scan can take up to 30 minutes.

Unfortunately, while CT and MRI systems are versatile and create high quality images, they are also expensive and not always accessible to patients. A CT system costs ~$1 million and an MRI system costs ~$1 - 3 million. CT and MRI systems are large and heavy, so they are usually fixed-in-place at major medical facilities. As a result, they are less accessible to primary care and rural clinics, economically developing markets, and patient bedsides. As of 2013, there were ~64,000 CT systems and ~32,000 MRI systems in the world, with about 50% located in the U.S. and Japan.

The use of CT and MRI systems are not always practical. For example, the diagnosis and treatment of patients suffering from NAFLD, requires ongoing surveillance of the patients' livers to assess the progression of the disease and the efficacy of treatment. However, the use of CT and MRI systems to perform that surveillance is impractical due the high cost of the scans, the limited availability of CT and MRI systems, and for safety reasons due to repeated radiation and magnetic exposure.

An ultrasound machine transmits sound waves, which bounce off tissues, organs and blood in the body. The ultrasound machine captures these echoes and uses them to create an image. Ultrasound technology is good at imaging the structure of internal organs,

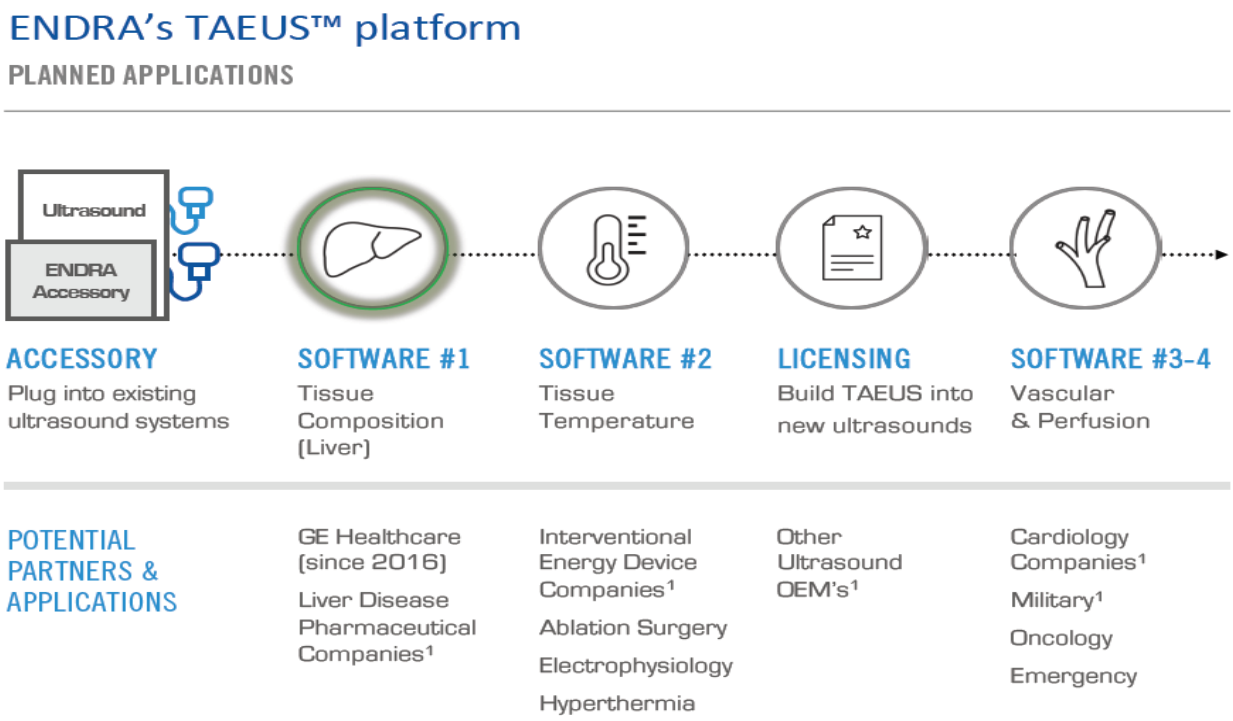
muscles and bone surfaces. Due to its utility, cost-effectiveness and safety profile, ultrasound imaging is frequently used in a physician's examination room or at a patient's bedside as a first-line diagnostic tool.

Ultrasound systems are more broadly available to patients than either CT or MRI systems. There are ~925,000 ultrasound systems globally in use today. Ultrasound systems are relatively inexpensive (compared to CT and MRI systems), with smaller portable systems costing as little as $10,000 and new cart-based systems costing between $75,000 and $200,000. Ultrasound systems are more mobile as many are designed to be moved from room to room, to be closer to patients. Ultrasound technology also has few safety concerns and are considered to be generally safe for repeated usage.

However, ultrasound's imaging capabilities are more limited compared to CT and MRI technology. For example, ultrasound systems cannot measure tissue temperature during thermal ablation surgery, or quantify fat to diagnose early stage liver disease, both of which can be performed with CT and MRI systems.

Sales of ultrasound diagnostic equipment were ~$4.4 billion globally in 2017 and are expected to grow at ~4.4% annually. An estimated 30,000 to 50,000 new and replacement systems are sold each year. These numbers include both portable and cart-based ultrasound systems, and cover all types of diagnostic ultrasound procedures, including systems intended for cardiology, prenatal and abdominal use. ENDRA believes its addressable market for its TAEUS applications is ~338,000 cart-based ultrasound systems currently in use throughout the world.

Exhibit 9: TAEUS Platform



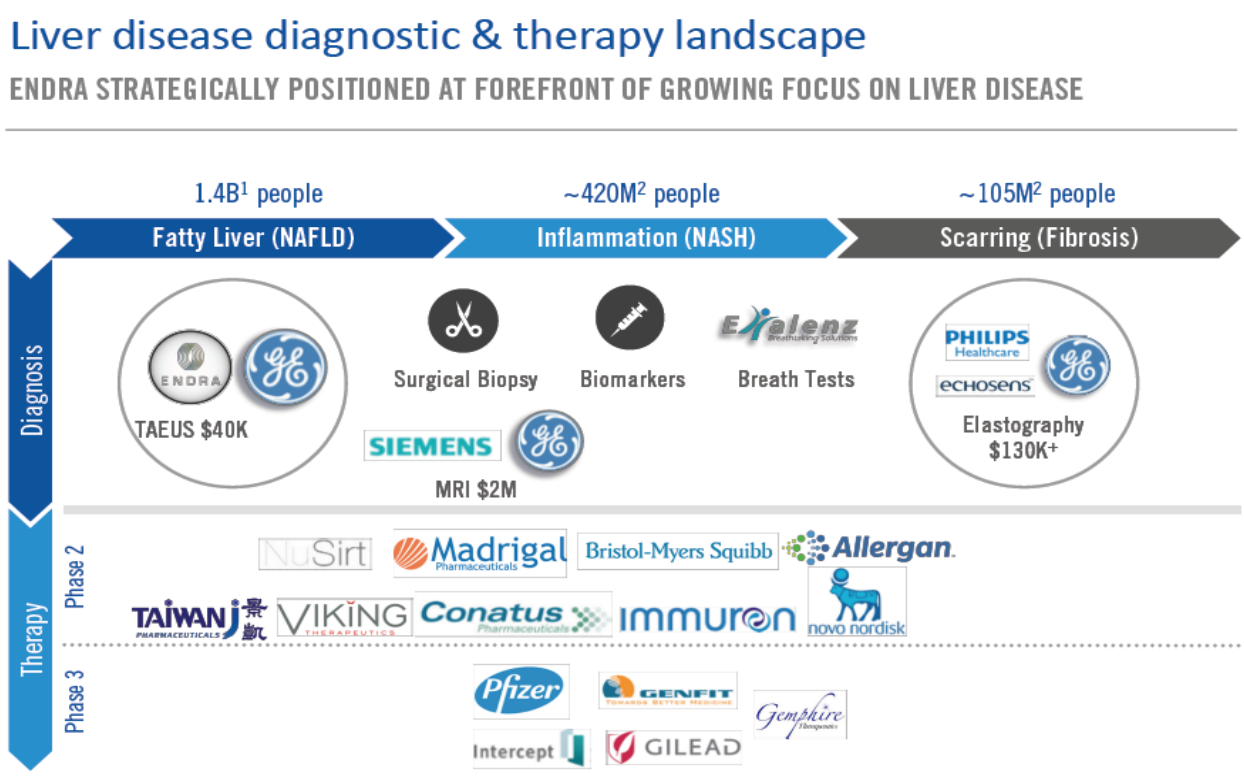
Source: Company reports.

The company plans to launch its first TAEUS application to measure fat in the liver, which is used for early detection and monitoring of Non-Alcoholic Fatty Liver Disease (NAFLD). Longer term, ENDRA plans to use its TAEUS platform for applications including temperature monitoring of thermoablative surgery, vascular imaging, and tissue perfusion.

ENDRA plans to initially market TAEUS as an ultrasound accessory (added to existing ultrasound systems) and at a price of $40,000 to $50,000 (for a one-time licensing fee). Longer term, the company plans for its TAEUS offerings to be implemented via a hardware platform (installed as part of OEM ultrasound machines) that can run multiple individual software applications that the company offers.

TAEUS should enable users to perform more procedures with their existing ultrasound equipment and retain more patients in their clinics rather than referring them out to a regional imaging medical center for a CT or MRI scan. Because TAEUS technology is designed to enhance the utility of, not replace, conventional ultrasound, healthcare providers will be able to increase the utilization of, and generate new revenue from, their existing ultrasound systems.

Exhibit 10: TAEUS Liver Focus

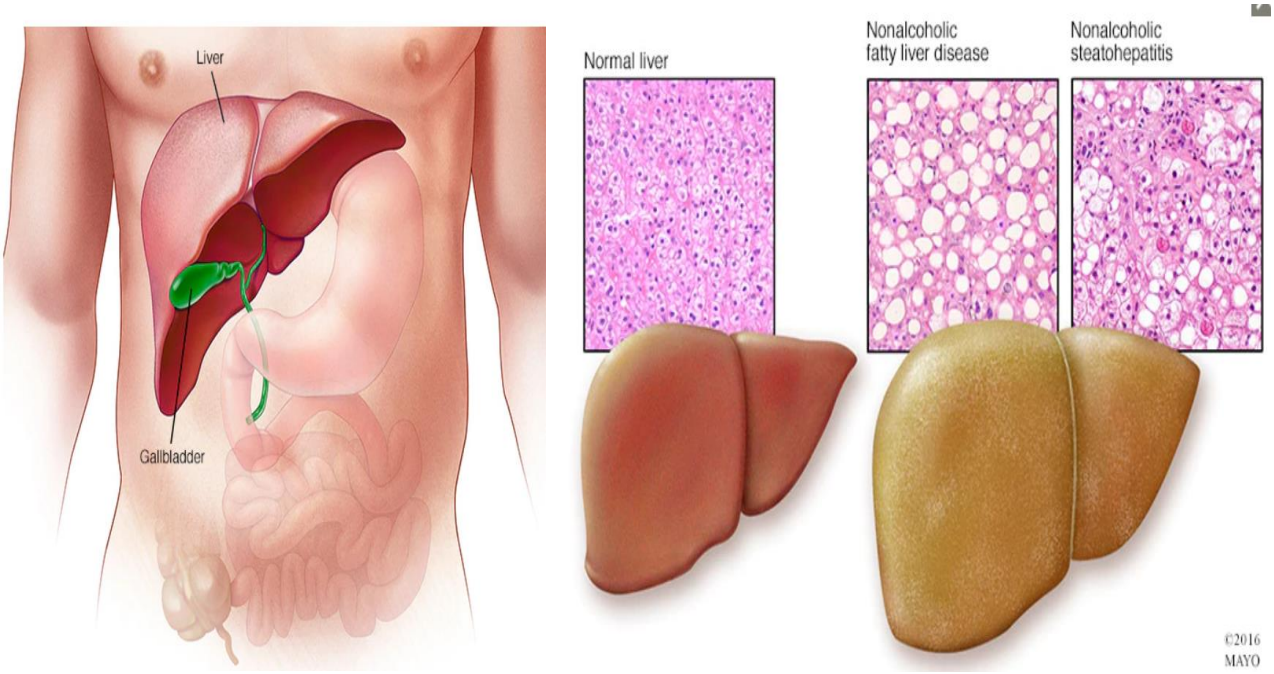


Source: Company reports.

ENDRA believes there is a large market opportunity to quantify fat in the liver and stage progression of NAFLD (non-alcoholic fatty liver disease) which, untreated, can progress to Nonalcoholic Steatohepatitis (NASH), cirrhosis, and liver cancer. In 2011, over 1.4 billion people were affected by NAFLD/NASH around the world. Obesity, hepatitis, and diabetes are leading contributors to NAFLD. Left untreated, an estimated 30% of NAFLD cases progress to NASH, a condition in which liver fat causes inflammation and decreased liver function, resulting in fatigue, weight loss, muscle pain and abdominal pain.

Approximately 25% of NASH cases progress to liver fibrosis, in which liver inflammation causes scar tissue which eventually prevents the liver from functioning properly. Additionally, cirrhosis (late stage of scarring (fibrosis)) patients may develop liver cancer. In 2018, the World Health Organization estimated that liver cancer kills 782,000 people annually. Because of the increased incidence of obesity, hepatitis and diabetes throughout the world, NAFLD has become the most common chronic liver disease and a key cause of cirrhosis and liver cancer.

Exhibit 11: Nonalcoholic Fatty Liver Disease (NAFLD) & Nonalcoholic Steatohepatitis (NASH)

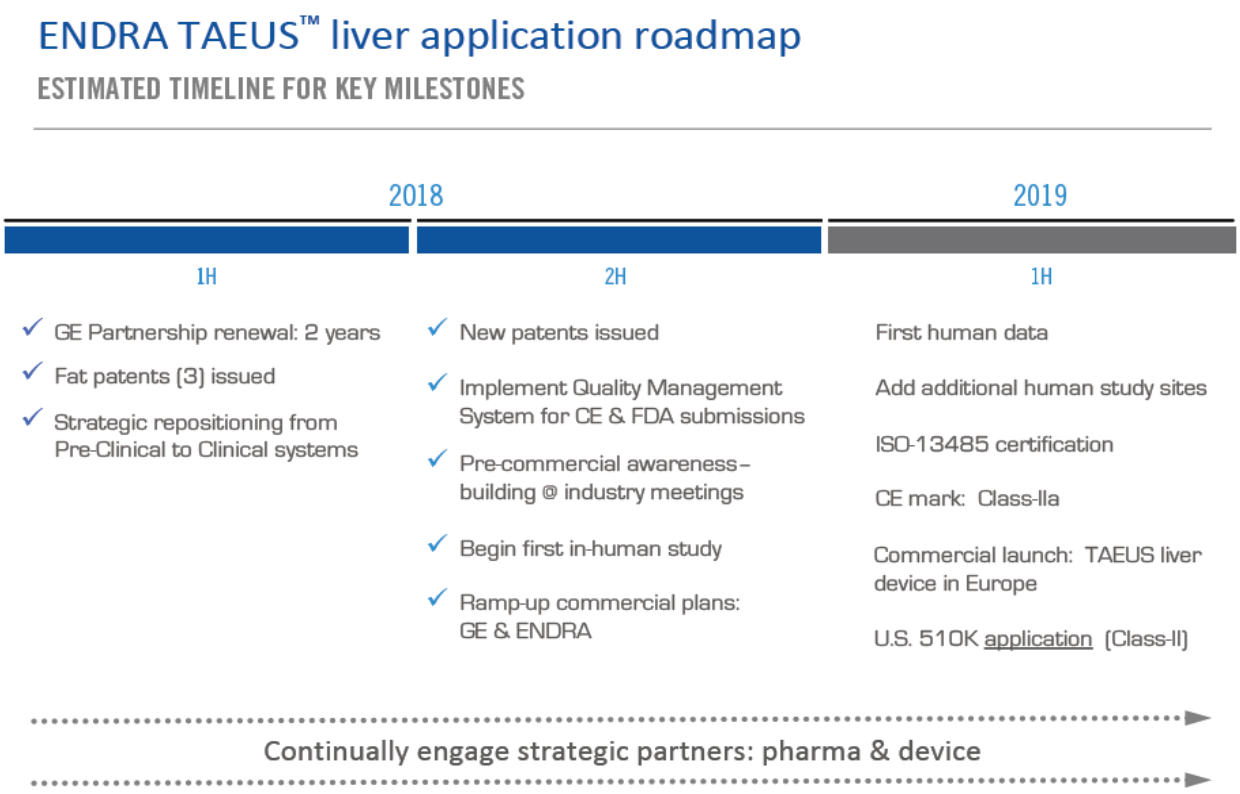


Source: Mayo Foundation for Medical Education and Research (MFMER).

Despite the increased incidence of NAFLD, there are no low-cost, accurate, and safe methods for measuring fat in the liver. Current liver enzyme blood tests are indicative, but cannot reliably confirm early stage NAFLD or NASH, and liver enzyme levels are normal in a large percentage of patients with NAFLD. Existing ultrasound technology can only measure fat qualitatively in the liver at moderate to severe levels, typically greater than 30% liver fat, and ultrasound has low accuracy when used on obese patients. While early stage NAFLD and NASH can be confirmed by an MRI scan, an MRI scan is expensive, and not widely available or practical for many patients. A surgical biopsy can be used to confirm NAFLD and NASH, but is also expensive, involves a painful procedure and exposes patients to the risk of infection. Furthermore, MRIs and surgical biopsies are impractical for repeated screening and monitoring of liver disease.

TAEUS technology should enable primary care physicians, radiologists, and hepatologists (liver specialist physician) to diagnose NAFLD earlier and monitor patients with related liver diseases more accurately and cost-effectively than is possible with existing technology.

Exhibit 12: TAEUS Liver Application Milestones



Source: Company reports.

Each TAEUS application will require regulatory approvals before ENDRA will be able to sell or license the application. For its NAFLD application, ENDRA intends to seek initial approval of its applications for sale in the European Union, followed by the United States, and then China. Each of these countries have similar regulatory approval process for medical devices.

In the U.S., medical devices are subject to varying degrees of regulatory control and are classified in one of three classes depending on what the FDA determines as necessary and reasonable to ensure their safety and efficacy:

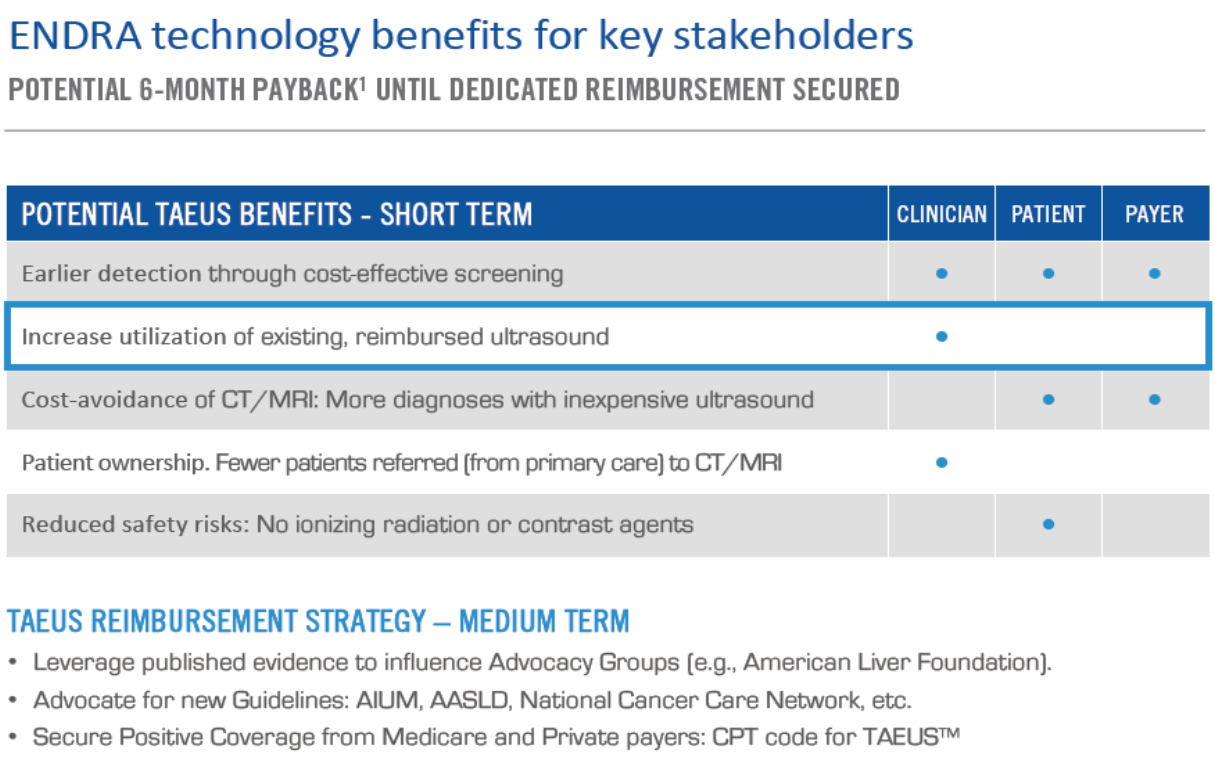
- Class I: Lowest level of risk such as elastic bandages and dental floss. Requires general controls, such as labeling and quality regulations.
- Class II: Simple devices, but more complicated than Class I devices (such as pregnancy testing kits and powered wheelchairs). More stringent regulatory controls to assure effectiveness and safety, including special controls, premarket notification (510(k)), performance standards, patient registries and post-market surveillance.
- Class III: Complex devices (such as implantable pacemakers and breast implants) that are considered to be at the highest risk. Stringent regulatory controls to assure effectiveness and safety, including special controls and approval of a premarket approval, or PMA, application.

In the U.S., ENDRA expects its TAEUS products to be classified as Class II medical devices and require FDA authorization prior to marketing by means of a 510(k) clearance. In the E.U., ENDRA will apply for a CE mark for its applications (E.U. equivalent to FDA

approval) so that it can market its products in the E.U. ENDRA expects an E.U. filing in Q2 2019 and a U.S. filing in mid-2019. ENDRA is planning for E.U. approval in mid-2019 and U.S. approval in late-2019 or early 2020, with product launches shortly thereafter.

In April 2016, ENDRA entered into a Collaborative Research Agreement with GE Healthcare (part of General Electric Company) to assist in commercialization of its TAEUS technology for use in a fatty liver application. GE will provide equipment and technical advice, and facilitate introductions to its ultrasound customers. In return, ENDRA has agreed that prior to commercially releasing its NAFLD TAEUS application, it will offer to negotiate an exclusive ultrasound manufacturer relationship with GE for a period of at least one year. In January 2018, the agreement was extended to January 2020.

Exhibit 13: ENDRA's Commercial Strategy



Source: Company reports.

In October 2018, ENDRA received an Investigational Testing Authorization ("ITA") from Health Canada to start the first human studies in healthy volunteers with its TAEUS clinical system targeting NAFLD. The main purposes of the study is to help its technical development and to compare the technology to MRI. The study is being conducted in collaboration with the Robarts Research Institute in London, Canada. In December 2018, Robarts completed its initial enrollment and data collection of 25 subjects and received authorization from Health Canada to expand the study to 50 subjects.

In March, ENDRA reported initial findings on the first human TAEUS feasibility study of liver fat on 25 subjects from the Robarts study. TAEUS data were analyzed and compared with quantitative MRI fat fraction measurements for each subject, along with other indicators such as Body Mass Index (BMI) and abdominal fat thickness as measured by traditional ultrasound.

The correlation between thermoacoustic measurements of ENDRA's reference design and the percent fat fraction by MRI had an R2 of 0.61, with a standard error of the mean of 2.98%. In contrast, the correlations between BMI (Body Mass Index) with MRI fat fraction was only 0.19 and the correlation of abdominal fat thickness (as determined by ultrasound) with MRI fat fraction was 0.31. Of note, some subjects with 'mild' fatty liver (based on MRI fat fraction) were incorrectly classified by conventional (non-TAEUS) ultrasound assessment as normal or severe, while TAEUS measures showed close agreement with MRI fat fraction in those subjects.

The next phase of these studies will aim to add study subjects that stratify the range of liver fat seen in mild, moderate, and severe fatty liver (that ranges from 6% - 50% liver fat by MRI). ENDRA expects to report additional findings in the next several months, including data and analysis on the entire 50 subjects. In addition to the Robarts study, ENDRA plans to initiate several additional North American and European clinical studies in 2019 to build a base of clinical data to support its commercialization efforts.

FINANCIALS

ENDRA's fiscal year ends on December 31. We expect its next earnings report (for Q1 (ending March) 2019) to be in mid-May. Because the company is a clinical stage medical device development company, it currently generates minimal revenues and significant losses as it funds its device development.

Exhibit 14: ENDRA's Historical Financials

FYE Dec 31 (in millions except EPS)	2016A	2017A	2018A	2019E	2020E
Total Revenue	**0.5**	**0.4**	**0.0**	**0.4**	**3.0**
Growth % (y/y)		-32%	-98%	5733%	757%
Operating income (loss)	**(1.8)**	**(4.6)**	**(9.0)**	**(9.1)**	**(8.9)**
Net income	**(2.8)**	**(5.4)**	**(9.8)**	**(9.1)**	**(8.9)**
EPS	**$ (3.84)**	**$ (1.95)**	**$ (2.17)**	**$ (1.21)**	**$ (1.12)**
Cashflow from operating activities	**(1.3)**	**(3.3)**	**(7.7)**	**(6.1)**	**(8.0)**

Source: Company reports and Ascendiant Capital Markets estimates.

Recent Results (fiscal Q4 ending December 2018)

ENDRA's recent financial performance is reflective of its developmental stage. In 2016 and 2017, ENDRA reported minimal revenue from sales of its Nexus 128 system, but ceased its sales in 2018 to focus its resources on the development of its TAEUS technology. In its Q4 2018 report (on March 11, 2019), the company reported no revenue and net loss was $2.4 million. Operating expenses were $2.0 million, mainly due to device development costs and general and administrative expenses. Q4 EPS was $(0.36).

The company does not provide specific quarterly financial guidance. However, we believe Q4's operating expenses of $2.0 million is a reasonable near term quarterly burn rate. The company expects continued progress on its device development milestones in 2019.

We do not expect the company to experience material revenue until its main TAEUS product receive regulatory approval (expected E.U. filing in Q2 2019 and U.S. filing in mid-2019).

ENDRA is planning for E.U. approval in mid-2019 and U.S. approval in late-2019 or early 2020, with product launches shortly thereafter. We have modeled relatively steady operating costs over the next year, primarily driven by its expected continued clinical trials expenses, regulatory application costs, and a ramp up in commercialization. For 2019, we expect revenues of $0.4 million (as initial revenue from TAEUS is realized) and EPS of $(1.21). For 2020, we expect revenues of $3.0 million (with TAEUS sales from the U.S. and E.U.) and EPS of $(1.12).

We believe that the biggest potential variable in our financial model is the ability of the company to get FDA (or equivalent) approval for its TAEUS medical device in development. It is these approvals that are ultimately how ENRDRA will be able to finally be able to generate revenue.

Even after device approval, ENDRA face a big challenge to successfully commercialize its products. ENDRA plans to initially market TAEUS as an ultrasound accessory and at a price of $40,000 to $50,000 (for a one-time licensing fee). While this price should enable purchasers to recoup their investment in less than one year by performing a relatively small number of additional ultrasound procedures, ENDRA still face the challenge to sell into its target markets.

If the company can make significant progress towards these goals, then revenue and earnings will likely be able to grow significantly (though likely still several years away). However, if the company has difficulties in making progress towards getting device approval, then revenue and earnings will likely grow at a more moderate rate or even not at all. Investors will be focused on the key milestones expected this year, regulatory approvals for TAEUS in the E.U. (mid-2019) and U.S. (late 2019) and its commercialization in E.U. (mid/late 2019) and U.S. (late 2019/early 2020).

The company's balance sheet had ~$6 million in cash and no debt as of December 2018. We believe ENDRA has enough cash to fund its operations through this year, but we estimate that it will need to raise capital next year (estimated Q1 2020). In October 2018, the company raised ~$3 million (~1.5 million common stock at $2.10 per share). In November 2018, the company raised ~$5 million (~1.4 million common stock at $3.90 per share).

Exhibit 15: ENDRA's Key Financial Metrics

Recent Share Price (4/10/19)	$ 1.52
52-Weeks Share Price (Low - High)	$1.36 - 5.75
Shares Outstanding	7.4 million
Market Capitalization	$11 million
Enterprise Value	$5 million
Cash (12/31/18)	$6 million
Debt (12/31/18)	$0 million
2018A Net loss	$10 million
2018A EPS	$ (2.17)
2019E Net loss	$9 million
2019E EPS	$ (1.21)

Source: Company reports and Ascendiant Capital Markets estimates.

FINANCIAL MODEL

ENDRA Life Sciences Inc.

Income Statement ($ mils)	Mar-17	Jun-17	Sep-17	Dec-17	2017	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
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1E	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Total Revenue	**0.000**	**0.058**	**0.287**	**0.007**	**0.352**	**0.006**	**0.000**	**0.000**	**0.000**	**0.006**	**0.000**	**0.000**	**0.100**	**0.250**	**0.350**	**0.500**	**0.700**	**0.800**	**1.000**	**3.000**
Cost of Revenues	0.000	0.051	0.118	0.003	0.173	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	0.125	0.175	0.250	0.350	0.400	0.500	1.500
Gross Profit	0.000	0.006	0.169	0.004	0.179	0.006	0.000	0.000	0.000	0.006	0.000	0.000	0.050	0.125	0.175	0.250	0.350	0.400	0.500	1.500
Research and development	0.096	0.175	0.301	1.360	1.931	1.669	0.840	1.163	1.051	4.722	1.100	1.100	1.100	1.100	4.400	1.100	1.100	1.100	1.100	4.400
Sales and marketing	0.001	0.007	0.047	0.067	0.123	0.107	0.041	0.072	0.042	0.263	0.100	0.100	0.300	0.400	0.900	0.500	0.500	0.500	0.500	2.000
General and administrative	0.264	0.882	0.732	0.874	2.751	1.068	0.942	0.833	0.910	3.753	1.000	1.000	1.000	1.000	4.000	1.000	1.000	1.000	1.000	4.000
Restructuring and other					0.000			0.288		0.288					0.000					0.000
Total operating expenses	0.361	1.063	1.080	2.301	4.805	2.844	1.823	2.356	2.003	9.025	2.200	2.200	2.400	2.500	9.300	2.600	2.600	2.600	2.600	10.400
Operating income (loss)	**(0.361)**	**(1.057)**	**(0.911)**	**(2.298)**	**(4.626)**	**(2.838)**	**(1.823)**	**(2.356)**	**(2.003)**	**(9.019)**	**(2.200)**	**(2.200)**	**(2.350)**	**(2.375)**	**(9.125)**	**(2.350)**	**(2.250)**	**(2.200)**	**(2.100)**	**(8.900)**
Interest income (expense)					0.000					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other income (expense)	(0.381)	(0.375)	0.002	0.003	(0.751)	0.012	(0.024)	(0.403)	(0.363)	(0.777)					0.000					0.000
Income before income taxes	(0.742)	(1.432)	(0.909)	(2.295)	(5.377)	(2.825)	(1.847)	(2.759)	(2.366)	(9.796)	(2.200)	(2.200)	(2.350)	(2.375)	(9.125)	(2.350)	(2.250)	(2.200)	(2.100)	(8.900)
Income taxes					0.000					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net income (loss)	(0.742)	(1.432)	(0.909)	(2.295)	(5.377)	(2.825)	(1.847)	(2.759)	(2.366)	(9.796)	(2.200)	(2.200)	(2.350)	(2.375)	(9.125)	(2.350)	(2.250)	(2.200)	(2.100)	(8.900)
Nonrecurring/noncash adjustments					0.000					0.000					0.000					0.000
Net income (pro forma)	**(0.742)**	**(1.432)**	**(0.909)**	**(2.295)**	**(5.377)**	**(2.825)**	**(1.847)**	**(2.759)**	**(2.366)**	**(9.796)**	**(2.200)**	**(2.200)**	**(2.350)**	**(2.375)**	**(9.125)**	**(2.350)**	**(2.250)**	**(2.200)**	**(2.100)**	**(8.900)**
EBITDA																				
Shares, Basic	0.723	2.437	3.907	3.910	2.757	3.923	3.923	3.928	6.500	4.505	7.400	7.500	7.600	7.700	7.550	7.800	7.900	8.000	8.100	7.950
Shares, Diluted	0.723	2.437	3.907	3.910	2.757	3.923	3.923	3.928	6.500	4.505	7.400	7.500	7.600	7.700	7.550	7.800	7.900	8.000	8.100	7.950
EPS Basic (Pro forma)	**($1.03)**	**($0.59)**	**($0.23)**	**($0.59)**	**($1.95)**	**($0.72)**	**($0.47)**	**($0.70)**	**($0.36)**	**($2.17)**	**($0.30)**	**($0.29)**	**($0.31)**	**($0.31)**	**($1.21)**	**($0.30)**	**($0.28)**	**($0.28)**	**($0.26)**	**($1.12)**
EPS Diluted (Pro forma)	($1.03)	($0.59)	($0.23)	($0.59)	($1.95)	($0.72)	($0.47)	($0.70)	($0.36)	($2.17)	($0.30)	($0.29)	($0.31)	($0.31)	($1.21)	($0.30)	($0.28)	($0.28)	($0.26)	($1.12)
Margins																				
Gross margin	#DIV/0!	11%	59%	55%	51%	100%	#DIV/0!	#DIV/0!	#DIV/0!	100%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Research and development	#DIV/0!	302%	105%	19854%	549%	27030%	#DIV/0!	#DIV/0!	#DIV/0!	76490%	#DIV/0!	#DIV/0!	1100%	440%	1257%	220%	157%	138%	110%	147%
Sales and marketing	#DIV/0!	12%	17%	981%	35%	1736%	#DIV/0!	#DIV/0!	#DIV/0!	4254%	#DIV/0!	#DIV/0!	300%	160%	257%	100%	71%	63%	50%	67%
General and administrative	#DIV/0!	1526%	255%	12761%	782%	17295%	#DIV/0!	#DIV/0!	#DIV/0!	60780%	#DIV/0!	#DIV/0!	1000%	400%	1143%	200%	143%	125%	100%	133%
Operating margin	NM	-1829%	-317%	-33541%	-1316%	-45961%	NM	NM	NM	-146080%	NM	NM	-2350%	-950%	-2607%	-470%	-321%	-275%	-210%	-297%
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	-2478%	-317%	-33498%	-1529%	-45761%	NM	NM	NM	-158670%	NM	NM	-2350%	-950%	-2607%	-470%	-321%	-275%	-210%	-297%
Y/Y % change																				
Total Revenue						#DIV/0!	-100%	-100%	-100%	-98%	-100%	#DIV/0!	#DIV/0!	#DIV/0!	5569%	#DIV/0!	#DIV/0!	700%	300%	757%
Gross margin						#DIV/0!	-100%	-100%	-100%	-97%	-100%	#DIV/0!	#DIV/0!	#DIV/0!	2734%	#DIV/0!	#DIV/0!	700%	300%	757%
Research and development						1642%	381%	287%	-23%	145%	-34%	31%	-5%	5%	-7%	0%	0%	0%	0%	0%
Sales and marketing						9435%	499%	52%	-38%	114%	-7%	142%	316%	854%	243%	400%	400%	67%	25%	122%
General and administrative						305%	7%	14%	4%	36%	-6%	6%	20%	10%	7%	0%	0%	0%	0%	0%
Operating income (loss)						687%	72%	159%	-13%	95%	-22%	21%	0%	19%	1%	7%	2%	-6%	-12%	-2%
Net income (loss)						281%	29%	204%	3%	82%	-22%	19%	-15%	0%	-7%	7%	2%	-6%	-12%	-2%
EPS Diluted (Pro forma)						-30%	-20%	202%	-38%	11%	-59%	-38%	-56%	-15%	-44%	1%	-3%	-11%	-16%	-7%

Source: Company reports and Ascendiant Capital Markets estimates.

ENDRA Life Sciences Inc.

Balance Sheet ($ mils) Fiscal Year End: December 31	Mar-17 Q1A	Jun-17 Q2A	Sep-17 Q3A	Dec-17 Q4A	Mar-18 Q1A	Jun-18 Q2A	Sep-18 Q3A	Dec-18 Q4A	Mar-19 Q1E	Jun-19 Q2E	Sep-19 Q3E	Dec-19 Q4E	Mar-20 Q1E	Jun-20 Q2E	Sep-20 Q3E	Dec-20 Q4E
Assets																
Cash and cash equivalents	0.134	7.524	6.977	5.602	3.150	2.206	0.637	6.471	4.045	2.115	2.914	0.127	(3.255)	(4.877)	(6.778)	(8.251)
Short term investments									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Accounts receivable, net				0.007	0.012	0.012	0.012		0.000	0.000	0.111	0.278	0.556	0.778	0.889	1.111
Inventory	0.040	0.133	0.132	0.192	0.246	0.279		0.059	0.000	0.000	0.010	0.025	0.050	0.070	0.080	0.100
Deferred income taxes									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Prepaid expenses and other	0.092	0.015	0.114	0.082	0.056	0.337	0.349	0.419	0.000	0.000	0.050	0.125	0.250	0.350	0.400	0.500
Total current assets	0.266	7.672	7.223	5.882	3.464	2.834	0.999	6.950	4.045	2.115	3.085	0.555	(2.400)	(3.680)	(5.410)	(6.539)
Property and equipment, net	0.279	0.272	0.257	0.242	0.226	0.211	0.293	0.273	0.303	0.333	0.363	0.393	0.423	0.453	0.633	0.663
Intangibles, net									0.000	0.000	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	0.000	0.000
Other									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total assets	**0.545**	**7.945**	**7.480**	**6.124**	**3.690**	**3.046**	**1.292**	**7.223**	**4.348**	**2.448**	**3.448**	**0.948**	**(1.977)**	**(3.227)**	**(4.777)**	**(5.877)**
Liabilities and stockholders' equity																
Accounts payable	0.623	0.162	0.312	0.848	0.860	0.751	1.068	0.975	0.000	0.000	3.000	2.500	1.500	2.100	2.400	3.000
Accrued expenses									0.000	0.000	0.050	0.125	0.250	0.350	0.400	0.500
Deferred income tax									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Short term debt	1.302					0.354	0.681		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total current liabilities	**1.925**	**0.162**	**0.312**	**0.848**	**0.860**	**1.105**	**1.750**	**0.975**	**0.000**	**0.000**	**3.050**	**2.625**	**1.750**	**2.450**	**2.800**	**3.500**
Deferred income taxes									0.000	0.000	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	0.000	0.000
Other long term liabilities									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long term debt									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total other liabilities	**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**	**0.000**
Preferred stock									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Common stock	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.301	0.601	0.901	1.201	1.501	1.801	2.101	2.401
Additional paid-in capital	11.880	22.474	22.768	23.171	23.550	24.508	24.868	33.939	33.939	33.939	33.939	33.939	33.939	33.939	33.939	33.939
Retained earnings	(13.260)	(14.692)	(15.601)	(17.895)	(20.721)	(22.568)	(25.326)	(27.692)	(29.892)	(32.092)	(34.442)	(36.817)	(39.167)	(41.417)	(43.617)	(45.717)
Accumulated other comprehensive income									0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other																
Total stockholders' equity	**(1.380)**	**7.782**	**7.168**	**5.275**	**2.830**	**1.941**	**(0.458)**	**6.248**	**4.348**	**2.448**	**0.398**	**(1.677)**	**(3.727)**	**(5.677)**	**(7.577)**	**(9.377)**
Total stockholders' equity and liabil	**0.545**	**7.945**	**7.480**	**6.124**	**3.690**	**3.046**	**1.292**	**7.223**	**4.348**	**2.448**	**3.448**	**0.948**	**(1.977)**	**(3.227)**	**(4.777)**	**(5.877)**

Balance Sheet Drivers

	Mar-17 Q1A	Jun-17 Q2A	Sep-17 Q3A	Dec-17 Q4A	Mar-18 Q1A	Jun-18 Q2A	Sep-18 Q3A	Dec-18 Q4A	Mar-19 Q1E	Jun-19 Q2E	Sep-19 Q3E	Dec-19 Q4E	Mar-20 Q1E	Jun-20 Q2E	Sep-20 Q3E	Dec-20 Q4E
Prepaid as % of total rev	#DIV/0!	26%	40%	1193%	909%	#DIV/0!	#DIV/0!	#DIV/0!	50%	50%	50%	50%	50%	50%	50%	50%
Accounts payable as % of total rev	#DIV/0!	281%	109%	12383%	13933%	#DIV/0!	#DIV/0!	#DIV/0!	100%	100%	3000%	1000%	300%	300%	300%	300%
Inventories as % of cost of rev	#DIV/0!	259%	111%	6213%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	20%	20%	20%	20%	20%	20%	20%	20%
Accrued expenses as % of total rev	#DIV/0!	0%	0%	0%	0%	#DIV/0!	#DIV/0!	#DIV/0!	50%	50%	50%	50%	50%	50%	50%	50%
Activity Ratios																
A/R Days Sales Outstanding	#DIV/0!	0	0	90	172	#DIV/0!	#DIV/0!	#DIV/0!	100	100	100	100	100	100	100	100
Inventory Turnover	0.0x	1.7x	8.7x	0.1x	0.0x	0.0x	#DIV/0!	0.0x	#DIV/0!	#DIV/0!	20.0x	20.0x	20.0x	20.0x	20.0x	20.0x
A/P Days Payable	#DIV/0!	253	98	11144	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	5400	1800	540	540	540	540
Book & Cash Value (per share)																
Book Value per Share (diluted)	-$1.91	$3.19	$1.83	$1.35	$0.72	$0.49	-$0.12	$0.96	$0.59	$0.33	$0.05	-$0.22	-$0.48	-$0.72	-$0.95	-$1.16
Cash per Share (diluted)	$0.18	$3.09	$1.79	$1.43	$0.80	$0.56	$0.16	$1.00	$0.55	$0.28	$0.38	$0.02	-$0.42	-$0.62	-$0.85	-$1.02
Net cash per Share (diluted)	$0.18	$3.09	$1.79	$1.43	$0.80	$0.47	-$0.01	$1.00	$0.55	$0.28	$0.38	$0.02	-$0.42	-$0.62	-$0.85	-$1.02

Source: Company reports and Ascendiant Capital Markets estimates

ENDRA Life Sciences Inc.

Cash Flow Statement ($ mils) Fiscal Year End: December 31	Mar-17 Q1A	Jun-17 Q2A	Sep-17 Q3A	Dec-17 Q4A	2017 FY-A	Mar-18 Q1A	Jun-18 Q2A	Sep-18 Q3A	Dec-18 Q4A	2018 FY-A	Mar-19 Q1E	Jun-19 Q2E	Sep-19 Q3E	Dec-19 Q4E	2019 FY-E	Mar-20 Q1E	Jun-20 Q2E	Sep-20 Q3E	Dec-20 Q4E	2020 FY-E
Cash flow from operating activities																				
Net income	(0.742)	(1.432)	(0.909)	(2.295)	(5.377)	(2.825)	(1.847)	(2.759)	(2.366)	(9.796)	(2.200)	(2.200)	(2.350)	(2.375)	(9.125)	(2.350)	(2.250)	(2.200)	(2.100)	(8.900)
Depreciation	0.016	0.015	0.015	0.015	0.061	0.015	0.015	0.018	0.020	0.068	0.020	0.020	0.020	0.020	0.080	0.020	0.020	0.020	0.020	0.080
Amortization					0.000					0.000					0.000					0.000
Debt related amortization expen	0.353	0.360	(0.000)	0.000	0.713		0.006	0.378	0.346	0.729					0.000					0.000
Stock comp	0.030	0.276	0.294	0.402	1.003	0.380	0.370	0.310	0.308	1.368	0.300	0.300	0.300	0.300	1.200	0.300	0.300	0.300	0.300	1.200
Deferred income taxes					0.000					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Change in fair value of warrant liability					0.000					0.000					0.000					0.000
Writedowns and impairments					0.000			0.288		0.288					0.000					0.000
Other gains/losses					0.000					0.000					0.000					0.000
Other					0.000					0.000					0.000					0.000
Changes in operating assets and liabilities:																				
Accounts receivable				(0.007)	(0.007)	(0.005)		(0.001)	0.012	0.007	0.000	0.000	(0.111)	(0.167)	(0.278)	(0.278)	(0.222)	(0.111)	(0.222)	(0.833)
Inventory	(0.000)	(0.093)	0.002	(0.060)	(0.152)	(0.054)	(0.033)	(0.008)	(0.059)	(0.155)	0.059	0.000	(0.010)	(0.015)	0.034	(0.025)	(0.020)	(0.010)	(0.020)	(0.075)
Prepaid expenses & other curre	(0.076)	0.072	(0.097)	0.034	(0.067)	0.029	(0.280)	(0.009)	0.183	(0.078)	0.419	0.000	(0.050)	(0.075)	0.294	(0.125)	(0.100)	(0.050)	(0.100)	(0.375)
Income tax					0.000					0.000					0.000					0.000
Other assets	(0.005)	0.005	(0.002)	(0.002)	(0.004)	(0.003)	(0.001)	(0.003)	(0.252)	(0.259)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Accounts payable	0.189	(0.346)	0.150	0.536	0.528	0.012	(0.109)	0.317	(0.094)	0.126	(0.975)	0.000	3.000	(0.500)	1.525	(1.000)	0.600	0.300	0.600	0.500
Accrued expenses					0.000					0.000	0.000	0.000	0.050	0.075	0.125	0.125	0.100	0.050	0.100	0.375
Other liabilities					0.000					0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net cash (used in) provided by	**(0.236)**	**(1.142)**	**(0.547)**	**(1.376)**	**(3.301)**	**(2.452)**	**(1.879)**	**(1.469)**	**(1.902)**	**(7.702)**	**(2.376)**	**(1.880)**	**0.849**	**(2.737)**	**(6.144)**	**(3.333)**	**(1.572)**	**(1.701)**	**(1.422)**	**(8.028)**
Cash flow from investing activities																				
Purchases of property and equipment		(0.008)			(0.008)			(0.100)		(0.100)	(0.050)	(0.050)	(0.050)	(0.050)	(0.200)	(0.050)	(0.050)	(0.200)	(0.050)	(0.350)
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**	**(0.008)**	**0.000**	**0.000**	**(0.008)**	**0.000**	**0.000**	**(0.100)**	**0.000**	**(0.100)**	**(0.050)**	**(0.050)**	**(0.050)**	**(0.050)**	**(0.200)**	**(0.050)**	**(0.050)**	**(0.200)**	**(0.050)**	**(0.350)**
Cash flow from financing activities																				
Issuance of debt	0.225				0.225		0.935			0.935	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Repayment of debt		(0.050)			(0.050)					0.000					0.000					0.000
Issuance of stock		8.591			8.591				7.737	7.737	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Proceeds from stock option exercises					0.000					0.000					0.000					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	**0.225**	**8.541**	**0.000**	**0.000**	**8.766**	**0.000**	**0.935**	**0.000**	**7.737**	**8.672**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**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	**(0.011)**	**7.390**	**(0.547)**	**(1.376)**	**5.457**	**(2.452)**	**(0.944)**	**(1.569)**	**5.834**	**0.869**	**(2.426)**	**(1.930)**	**0.799**	**(2.787)**	**(6.344)**	**(3.383)**	**(1.622)**	**(1.901)**	**(1.472)**	**(8.378)**
Beginning cash and equivalents	**0.145**	**0.134**	**7.524**	**6.977**	**0.145**	**5.602**	**3.150**	**2.206**	**0.637**	**5.602**	**6.471**	**4.045**	**2.115**	**2.914**	**6.471**	**0.127**	**(3.255)**	**(4.877)**	**(6.778)**	**0.127**
Ending cash and equivalents	**0.134**	**7.524**	**6.977**	**5.602**	**5.602**	**3.150**	**2.206**	**0.637**	**6.471**	**6.471**	**4.045**	**2.115**	**2.914**	**0.127**	**0.127**	**(3.255)**	**(4.877)**	**(6.778)**	**(8.251)**	**(8.251)**

Source: Company reports and Ascendiant Capital Markets estimates

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ENDRA Life Sciences Inc.

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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.

Ascendiant Capital Markets, LLC Rating System

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

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Total return is defined as price appreciation plus dividend yield.

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			Investment Banking Services Past 12 months	
Rating	**Count**	**Percent**	**Count**	**Percent**
Buy	37	95%	5	14%
Hold	2	5%	1	50%
Sell	0	0%	0	0%
Total	39	100%	6	15%

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