Bringing New Capabilities To Ultrasound

Investor Presentation

January 2018
Certain statements made in this presentation contain forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding the timing of our clinical trials, our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth, are forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. You can find many (but not all) of these statements by looking for words such as “approximates,” “believes,” “hopes,” “expects,” “anticipates,” “estimates,” “projects,” “intends,” “plans,” “would,” “should,” “could,” “may” or other similar expressions. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our present expectations or projections. Actual results may differ materially from those discussed as a result of various factors, including, but not limited to: our limited operating history and our ability to achieve profitability; our potential inability to develop commercially feasible applications; our need to secure required regulatory approvals from governmental authorities in the European Union, United States and other jurisdictions; our dependence on third parties to design, manufacture, obtain required regulatory approvals, market and distribute our TAEUSTM applications; our ability to commercialize any of our TAEUSTM applications and the pricing of any such applications; our ability to protect our intellectual property and the risk we may infringe on the intellectual property of others; and our ability to obtain adequate financing in the future. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date hereof and, except as required by law, we undertake no obligation to update or review publicly any forward-looking statements, whether as a result of new information, future events or otherwise. We anticipate that subsequent events and developments will cause our views to change.

In this presentation, we refer to information regarding potential markets for products and other industry data. We believe that all such information has been obtained from reliable sources that are customarily relied upon by companies in our industry. However, we have not independently verified any such information.

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ENDRA Life Sciences

Enhance ultrasound to see human tissue in ways previously possible only on CT-MRI... at 50X lower cost\(^3\)

**Key Statistics** (as of January 2, 2018)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Common Stock Price (NASDAQ: NDRA)</td>
<td>$4.95</td>
</tr>
<tr>
<td>Warrant Price (NASDAQ: NDRAW)(^1)</td>
<td>$1.18</td>
</tr>
<tr>
<td>Shares Outstanding</td>
<td>3.9M</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>$19.3M</td>
</tr>
<tr>
<td>Net Proceeds from IPO(^2)</td>
<td>$8.6M</td>
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<tr>
<td>Management / Director Ownership</td>
<td>13.7%</td>
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</table>

\(^1\) Warrant is a 5 year warrant with a $6.25 exercise price.

\(^2\) IPO closed May 12, 2017, with overallotment option fully exercised on May 22, 2017. Net includes costs associated with underwriters’ fees and expenses.

\(^3\) $40K ENDRA device estimated price compared to average $2M CT-MRI price

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**Technology**

- 30+ IP assets
- Platform with multiple revenue streams

**Strategic Partnership**

- GE Healthcare
- #1 ultrasound market leader

**Market Opportunity**

- $13B addressable market
- Initial focus on Liver Disease

**Leadership**

- GE Healthcare, Smith & Nephew
- Stanford, University of Michigan
The Core Problem ENDRA is Targeting
Gap between imaging performance, access and safety

CT & MRI

- Many clinical applications
- Not broadly available
- Expensive ($1M-$3M)
- Safety concerns

Advanced applications
- Ultrasound availability & safety
- Target $40K ASP

Conventional Ultrasound

- Broadly available
- Inexpensive (~$100K)
- Safe (E.g., no radiation)
- Limited clinical applications
**Thermo Acoustic UltraSound (TAEUS™)**

Short RF pulses differentiate tissues in concert with ultrasound

Traditional ultrasound and low energy radio (RF) waves are pulsed into patient.

RF energy is absorbed by tissues differently based on water & ion content, creating small sonic waves.

Sonic waves are detected by ultrasound equipment.

TAEUS™ image is processed and overlaid on ultrasound image.

Depiction of TAEUS accessory next to ultrasound system.
ENDRA’s TAEUS™ Platform

Planned applications

2018 (2H)

Accessory

1. Depiction of potential TAEUS accessory

Software #1
- Tissue Composition (Liver)

Software #2
- Tissue Temperature

Licensing
- Build TAEUS into new ultrasounds

Software #3 - #4
- Vascular & Perfusion

Potential Applications & Partners

Plug into existing ultrasound systems

- GE Healthcare (since 2016)
- Liver Disease Pharmaceutical

- Interventional Energy Devices
- Ablation Surgery
- Electrophysiology
- Hyperthermia
- Ultrasound OEM’s
- Cardiology
- Oncology
- Emergency
- Military

1. Potential additional revenue from disposable applicator pads and service
2. Potential ENDRA partners
Opportunity #1: Non-Alcoholic Fatty Liver Disease (NAFLD)

Large unaddressed population and cost. ENDRA’s TAEUS would provide significant diagnostic advantages

1.4 Billion people affected globally\(^1\)
- Drivers: obesity, diabetes, Hep-C, drugs
- Often asymptomatic, needs to be monitored
- \(\sim 30\%\)\(^2\) 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 NAFLD diagnostic & monitoring tools are impractical:
- invasive surgical biopsy, expensive MRI

"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 Assoc.

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\(^{1,2,4,5}\) Sources in Appendix
Liver Disease Diagnostic & Therapy Landscape

ENDRA strategically positioned at forefront of growing focus on liver disease

1.4B¹ people
Fatty Liver (NAFLD)
TAEUS $40K
MRI $1.5M+

~420M² people
Inflammation (NASH)
Surgical Biopsy
Biomarkers
Breath Tests

~105M² people
Scarring (Fibrosis)
Elastography $130K+

Sources and Notes in Appendix

¹² Sources and Notes in Appendix
Opportunity #2: Energy-Based Surgery
Safely and inexpensively map the heat signature of tissue ablation in real time on ultrasound

5+ million RF ablation procedures annually¹
- Growing 20% CAGR
- Driven by aging-related diseases: cancer, pain, cardiology

Current diagnostic tools are inaccurate or impractical:
Printed guidelines, expensive MRI

“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

¹ Sources and Notes in Appendix
TAEUS Guidance of Energy-Based Surgery

Inexpensively and safely map the heat signature of tissue ablation in real time on ultrasound

Surgical probe delivering heat or cold

ENDRA Temperature Overlay
Addressable Market For ENDRA’s Accessory & Software

Large installed base of diagnostic ultrasound systems\(^1\)

2017 Estimated Global Installed Ultrasound Systems: 925,000\(^1\)

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
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<tbody>
<tr>
<td>U.S.</td>
<td>57,000</td>
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<tr>
<td>EU</td>
<td>78,000</td>
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<tr>
<td>Asia</td>
<td>159,000</td>
</tr>
<tr>
<td>ROW</td>
<td>44,000</td>
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</table>

ENDRA’s Addressable Market\(^2\)
Cart-based non-prenatal systems

Out of Scope
Mobile and prenatal systems

587,000

338,000

338,000 Addressable Ultrasound Systems \(\times\) $40,000 ENDRA Accessory\(^3\) = $13B\(^+\) Market

\(^{1,2,3}\) Sources and Notes in Appendix
ENDRA – GE Healthcare Partnership
Focused on early diagnosis of Non-Alcoholic Fatty Liver Disease

#1 Ultrasound Market Leader

ENDRA agreement signed April 2016, renewed April 2017

- ENDRA provides 1 year sales exclusivity on TAEUS liver application
- GE provides technical advice and GE equipment
- GE provides introductions to GE ultrasound customers

“We believe that ENDRA’s technology has the potential to bring significant new capabilities to ultrasound – which aligns well with GE Healthcare’s mission of increasing access to high-quality, cost-effective healthcare”

Brian McEathron, VP and GM GE Radiology & Vascular Ultrasound
ENDRA Technology Benefits For Key Stakeholders

6-month payback\(^1\) until dedicated reimbursement secured

Potential TAEUS Benefits - Short Term

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Clinician</th>
<th>Patient</th>
<th>Payer</th>
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<tbody>
<tr>
<td>Earlier detection through cost-effective screening</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Increase utilization of existing, reimbursed ultrasound</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost-avoidance of CT/MRI: More diagnoses with inexpensive ultrasound</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Patient ownership. Fewer patients referred (from primary care) to CT/MRI</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced safety risks: No radiation or contrast agents</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

TAEUS Reimbursement Strategy – Medium Term

- Leverage published evidence to influence Advocacy Groups (e.g., American Liver Foundation).
- Advocate for new Guidelines: AIUM, AASLD, National Cancer Care Network, etc.
- Secure Positive Coverage from Medicare and Private payers: CPT code for TAEUS™

\(^1\) Payback estimation assumes $40K ENDRA system divided by $307 base ultrasound procedure reimbursement (Abdominal scan CPT 76705) = 130 patients. 130 patients divided by 5 assumed patients per week = 26 weeks = 6 months payback. Sources: American College of Radiology, Federal Register
ENDRA TAEUS™ Liver Application Roadmap
Estimated timeline for human data and regulatory clearance

IPO ✔
2017
Q2
Partnership renewal ✔

2H
Initiate early human studies ✔

TAEUS liver device produced
First human data

2018
1H
CE clearance Class-IIa

Commercialize liver device in Europe

2H
EU commercial channels ready: GE, distributors, small ENDRA team

2019
1H
U.S. 510K application Fat vs. lean

✔
✔
✔
Continually Engage Strategic Partners: Pharma & Device

U.S. 510K clearance Class-II
ENDRA’s Asset-Light Model To Bring TAEUS Liver To Market

Partnerships to help execute ENDRA’s operational plan

ENDRA leads project mgt., systems engineering & regulatory submissions

3-4 commercial ENDRA specialists in Europe supporting channel partners & customers

**Develop & Manufacture**

- Medical device engineering & manufacturing
- Medical software developer
- CRO for human studies

**Commercialize**

- Introductions to GE ultrasound customers
- As needed, sales people & customer relationships
- Gastro/Hepatology, Internal Medicine, Primary Care, Radiology

Target Customers

Distributors

CRO for human studies

Introductions to GE ultrasound customers

As needed, sales people & customer relationships

Gastro/Hepatology, Internal Medicine, Primary Care, Radiology
## Leadership

### Board of Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Role and Experience</th>
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<tbody>
<tr>
<td>Sam Gambhir, MD</td>
<td>Chair of Radiology at Stanford University</td>
</tr>
<tr>
<td>Michael Harsh</td>
<td>36-year GE veteran Retired CTO GE Healthcare</td>
</tr>
<tr>
<td>Anthony DiGiandomenico</td>
<td>Co-founder of MDB Capital</td>
</tr>
<tr>
<td>Alex Tokman</td>
<td>10+ years GE Healthcare Former CEO Microvision</td>
</tr>
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### Management and Key Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Role and Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Francois Michelon</td>
<td>CEO &amp; Chairman 20 years med-technology experience GE Healthcare, Smith &amp; Nephew, Biomet MBA, Carnegie-Mellon BA, University of Chicago</td>
</tr>
<tr>
<td>Michael Thornton</td>
<td>CTO 15+ years healthcare tech Founded &amp; sold Enhanced Vision Systems to GE MSc Western Ontario BASc. Univ. Toronto</td>
</tr>
<tr>
<td>David Wells</td>
<td>CFO for 3 public firms Founder and CEO of Wells Compliance Group MBA, Pepperdine BA, Seattle Pacific</td>
</tr>
<tr>
<td>Scott Belanger</td>
<td>Director, Engineering 30 years’ engineering at SRI, IBM, Lockheed BS, MS EE, Michigan Tech Ph.D. EE, Georgia Inst. of Technology</td>
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</table>

### Clinical Advisors

<table>
<thead>
<tr>
<th>Name</th>
<th>Role and Experience</th>
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<tbody>
<tr>
<td>Jon Rubin MD, PhD</td>
<td>Professor, Radiology University of Michigan</td>
</tr>
<tr>
<td>Jing Gao, MD</td>
<td>Deputy President Dalian University (China)</td>
</tr>
</tbody>
</table>
Select Clinical Feedback

“If we could combine the imaging capabilities of MRI, PET or CT with the safety and access of ultrasound it would broadly change healthcare – improving clinical decisions at point-of-care for millions of people, and dramatically reducing costs. This is ENDRA’s exciting vision.”

Sam Gambhir, M.D PhD, Chair of Radiology, Stanford University; ENDRA Board Member

“Fatty liver would be a GREAT application of ENDRA’s technology. If you could quantify fat at the point-of-care, a lot of clinicians would find it very useful.”

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

“ENDRA’s TAEUS technology could be a game changer for the clinical care cycle of liver (and other) disease – from screening to diagnosis to therapy guidance – especially in markets (like China) where ultrasound is the primary imaging modality.

Bringing TAEUS’ improved soft-tissue contrast capabilities to point-of-care ultrasound aligns extremely well with China’s efforts to provide effective, lower-cost health services to its 1.4 billion citizens -- by shifting care delivery from large urban hospitals to primary-care community clinics.”

Jing Gao, M.D, Deputy President, Dalian University International Institute of Medical Imaging, China
ENDRA Life Sciences: Investment Summary

30+ IP assets. World class team: Stanford, GE Healthcare, Smith & Nephew

Business model: Platform technology + capital efficient operating model

$13B addressable market for ENDRA’s $40K accessory product

Partnership with #1 global ultrasound market leader

Initial focus on Fatty Liver Disease: 1.4B people affected, no practical diagnostic tools
Contact Us

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Managing Director  
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NDRA@mzgroup.us
### Capitalization Table at December 31, 2017*

<table>
<thead>
<tr>
<th>Issued &amp; Outstanding</th>
<th>Fully Diluted</th>
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</thead>
<tbody>
<tr>
<td><strong>Common Shares</strong></td>
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<tr>
<td>Shares Issued in IPO</td>
<td>1,932,000</td>
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<tr>
<td>Existing Shareholders</td>
<td>1,827,040</td>
</tr>
<tr>
<td>Management &amp; Directors</td>
<td>163,987</td>
</tr>
<tr>
<td><strong>Total Common Shares Outstanding</strong></td>
<td>3,923,027</td>
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<tr>
<td><strong>Warrants &amp; Options</strong></td>
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<tr>
<td>Warrants Issued in IPO</td>
<td>2,086,560</td>
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<tr>
<td>Management &amp; Directors</td>
<td>859,303</td>
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<tr>
<td>Employee Options</td>
<td>80,818</td>
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<tr>
<td>Option Pool (unissued)</td>
<td>357,815</td>
</tr>
<tr>
<td>All Other</td>
<td>181,581</td>
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<tr>
<td><strong>Total Warrants &amp; Options Outstanding</strong></td>
<td>3,566,077</td>
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<tr>
<td><strong>Fully Diluted Issued &amp; Outstanding</strong></td>
<td>7,489,104</td>
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</table>

*The above cap table includes potentially dilutive securities transactions that occurred in conjunction with the IPO. All shares outstanding numbers include the exercise of the underwriter’s overallotment option. These numbers are unaudited.
ENDRA Technologies
Leveraging IP to expand ENDRA into the clinical space

Laboratory System: 2010
Near-infrared light + ultrasound
World class customers: Stanford, University of Michigan, Jiaotong-Shanghai, Purdue
25 conference and journal publications

Clinical System: Expected 2018
RF pulses + ultrasound
Platform: Software, licensing, hardware, service & disposables

Depiction of TAEUS accessory next to ultrasound system
Ultrasound Technology Evolution
A history of new technologies expanding ultrasound utility and driving M&A activity

1960 - 2000
- Doppler Ultrasound
- Cardiac imaging
- 3D imaging
- Contrast agents
- Color Doppler

2000 - 2016
- Harmonic imaging
- Elastography
- CMUT technology
- Miniaturization
- 4D

2017+
- Tissue Composition
- Tissue Temperature
- Tissue Perfusion
- Vascular Imaging

Potential Strategic Partners
- Ultrasound OEMs
- Veterinary Companies
- Pharma (NAFLD, cancer)
- Thermo-ablation OEMs
- Interventional Cardiology

M&A
- Siemens / Quantum
- Philips / ATL $800M
- GE / Vingmed $244M
- Siemens / Acuson $500M
- Philips / Agilent $1.7B

- Siemens / Sensant
- FujiFilm / SonoSite $998M
- Hitachi / Aloka $315M
- Samsung / Madyson $262M
Sources and Notes

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1 The LANCET, Vincent Wai-Sun Wong, November 2015
2 International Journal of Molecular Sciences, The Natural Course of Non-Alcoholic Fatty Liver Disease, 2016
3 Hepatology, The economic and clinical burden of nonalcoholic fatty liver disease in the United States and Europe. Younossi, Blissett, Henry, Stepanova, Racila, Hunt, Beckerman, 2016. Annual direct medical costs of NAFLD €35B in Germany, France, Italy, and U.K.
4 Journal of Clinical Gastroenterology, 2016: Variables associated with inpatient and outpatient resource utilization among Medicare beneficiaries with nonalcoholic fatty liver disease with or without cirrhosis. Sayiner, Otgonsuren, Cable, Younossi Afendy, Golabi, et al.

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1 The LANCET, Vincent Wai-Sun Wong, November 2015
2 International Journal of Molecular Sciences, The Natural Course of Non-Alcoholic Fatty Liver Disease, 2016

Note: Companies listed for purpose of illustrating broad but non-exhaustive 2017 interest in liver disease, and may not reflect companies’ strategy or position

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1 ENDRA estimate derived from Grand View Research, Global Radiofrequency Ablation Devices Market Segment Forecast to 2020, Oct. 2014. Data is for RF ablation procedures only. Procedure volumes are larger when including other energy-based ablation technologies such as microwave, ultrasound, cryotherapy and HIFU.

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1 ENDRA estimate of 2017 worldwide ultrasound units, based on GlobalData MediPoint, 2014 report indicating 800,000 units growing at 4%-5% CAGR.
2 Addressable market for all TAEUS accessory & software, including tissue composition, temperature, vascular and perfusion. Not including licensing, disposables or service.
3 Based on ENDRA’s design work and understanding of the ultrasound accessory market, we intend to price our initial TAEUS liver system at approximately $40K to $50K.