

SEPTEMBER 2019

Pioneering Breakthrough Ultrasound Applications

H.C. WAINWRIGHT 21ST ANNUAL
GLOBAL INVESTMENT CONFERENCE

Safe Harbor

Certain statements made in this presentation are 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 TAEUS™ applications; our ability to commercialize any of our TAEUS™ 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

VISUALIZE HUMAN TISSUE LIKE CT OR MRI... BUT AT 50X LOWER COST¹... AT POINT OF PATIENT CARE

Platform technology
with initial focus on
NAFLD - NASH



Partnership w/
#1 ultrasound
market leader



Strong technology
position with 58 IP
assets²



⋮

\$13B greenfield
opportunity to expand
clinical applications for
1M⁺ installed ultrasound
systems

⋮

Planned 2020 launch of
tool to assess liver fat in
NAFLD - NASH, which
affects 1.4B people

¹ \$40K ENDRA device estimated price compared to average \$2M CT-MRI price

² IP assets: defined, filed, issued, and licensed in U.S and foreign jurisdictions

³ Estimate based on 3338,000 addressable ultrasound systems (see slide 8)

Leadership

MANAGEMENT



Francois Michelin

Director, Chairman
& CEO

20+ years in med-tech
GE Healthcare, Smith
& Nephew, Biomet



Michael Thornton

CTO

15+ years med-tech
Founder: Enhanced
Vision Systems
(sold to GE)



Renaud Maloberti

CCO

20+ years in med-
tech. 12 years in
ultrasound
FujiFilm, BK Medical,
GE Healthcare



Amy Sitzler

VP Engineering

20 years in
engineering & quality
at GE Healthcare



David Wells

CFO

Previously CFO for 3
public firms
Founder Wells
Compliance Group

BOARD OF DIRECTORS

Sam Gambhir, MD

Chair of Radiology,
Stanford University

Michael Harsh

36-year GE veteran
Retired CTO, GE Healthcare

Anthony DiGiandomenico

Co-founder, MDB Capital

Alex Tokman

CEO-In-Residence Allen Institute
for Artificial Intelligence
10 years GE Healthcare

CLINICAL ADVISORS

Jing Gao, MD

Weill Cornell Medicine
Rocky Vista University

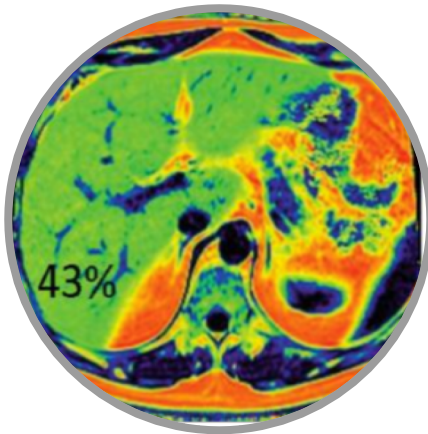
Jon Rubin MD, PhD

(Retired) Head of Abdominal Ultrasound
University of Michigan

The Current Problem That ENDRA Is Addressing

ENDRA FILLS THE GAP BETWEEN IMAGING PERFORMANCE, SAFETY, ACCESS AND COST

CT & MRI

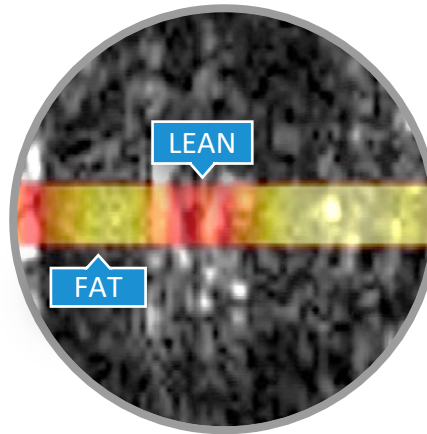


Many clinical applications

Not broadly available

Expensive \$1M - \$3M

Safety concerns

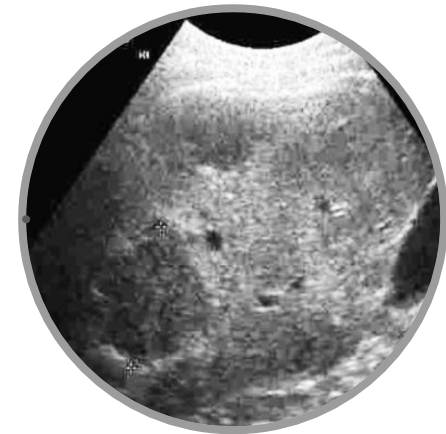


Advanced applications

Works with broadly available
Ultrasound equipment

Inexpensive \$40K - \$50K

CONVENTIONAL ULTRASOUND



Broadly available

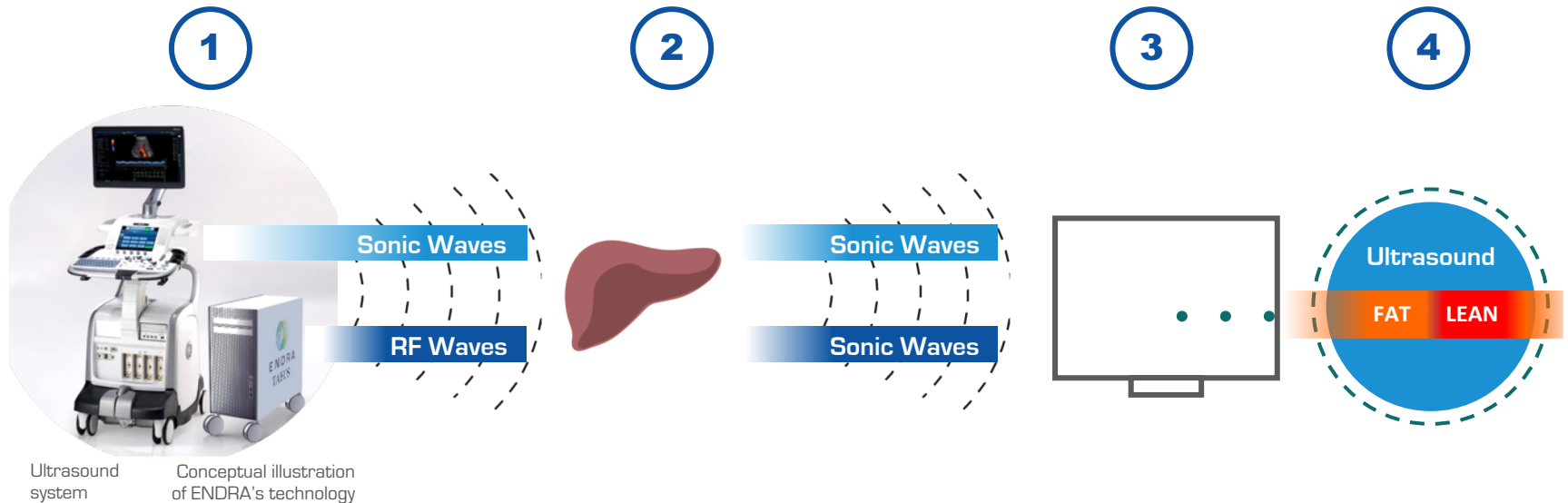
Cost effective \$30K - \$100K

Safe (E.g., no radiation)

Limited clinical apps.

Thermo Acoustic Enhanced UltraSound (TAEUS™)

SHORT RF PULSES DIFFERENTIATE TISSUES IN CONCERT WITH ULTRASOUND



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

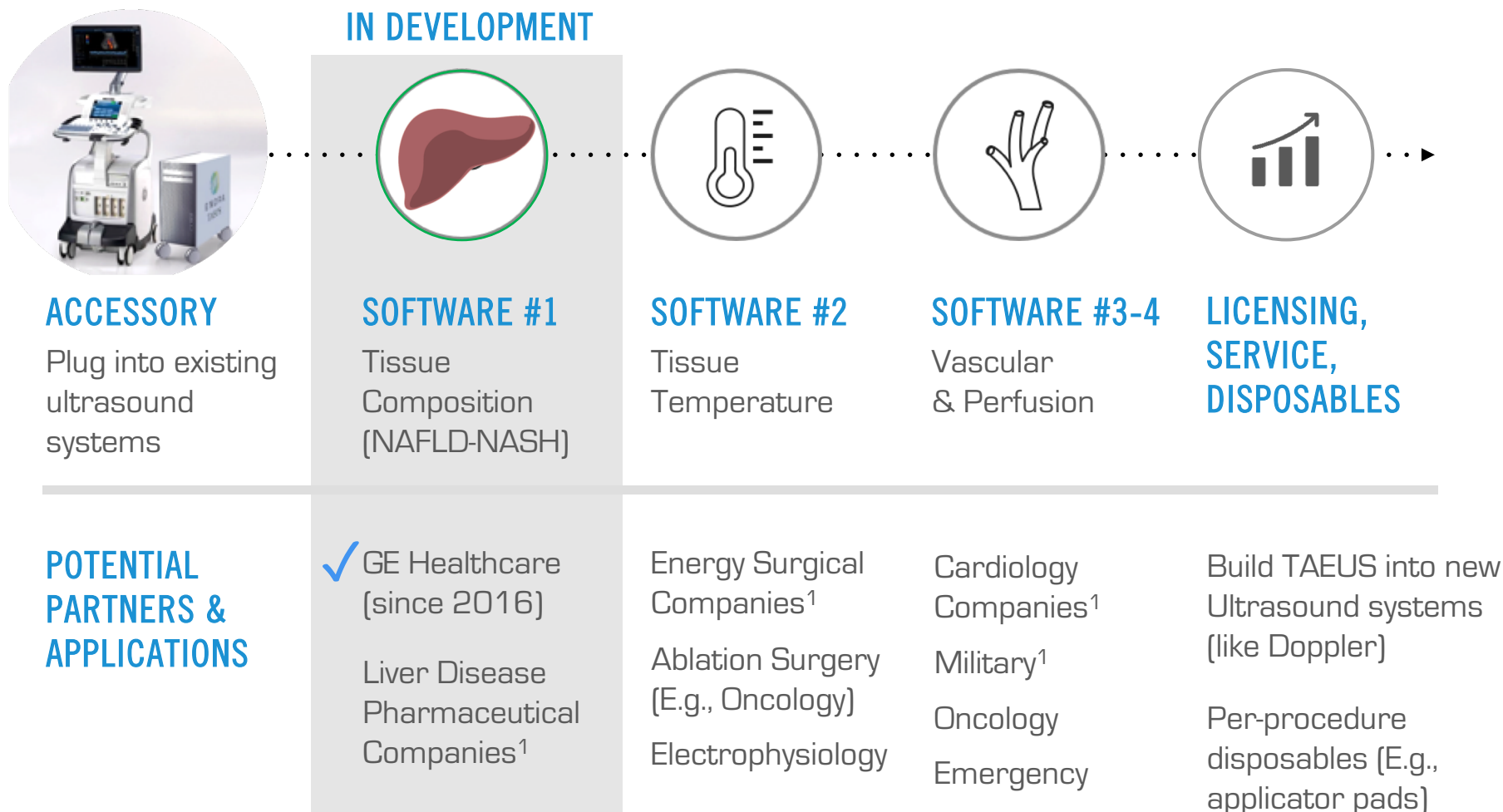
RF energy is absorbed by tissues differently based on water & ion content, creating small sonic waves – unique signatures for tissue composition, function, temperature

Sonic waves are detected by ultrasound equipment

TAEUS™ signals are processed and displayed to complement an ultrasound image

TAEUS™ Platform: Multiple Potential Revenue Streams

INITIAL APPLICATION FOCUSED ON SIGNIFICANT CLINICAL NEED TO DIAGNOSE NAFLD



Addressable Market For ENDRA's TAEUS Platform

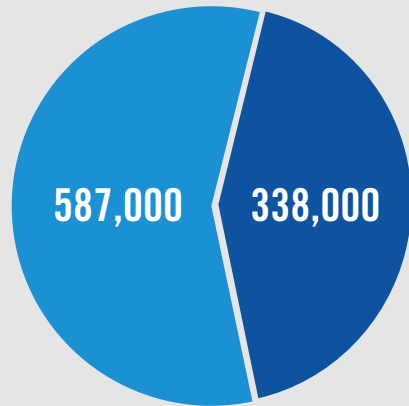
~1 MILLION INSTALLED ULTRASOUND SYSTEMS¹ DELIVERING ~400M ANNUAL PROCEDURES

ULTRASOUND SYSTEMS

2017 estimated global installed ultrasound systems: 925,000¹

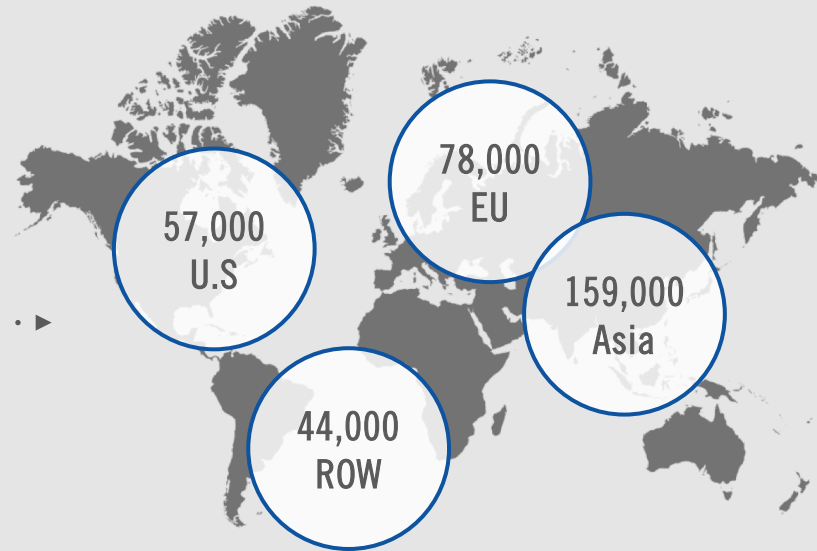
Out of Scope

Mobile and prenatal systems
⋮
.....▶



ENDRA'S ADDRESSABLE MARKET²

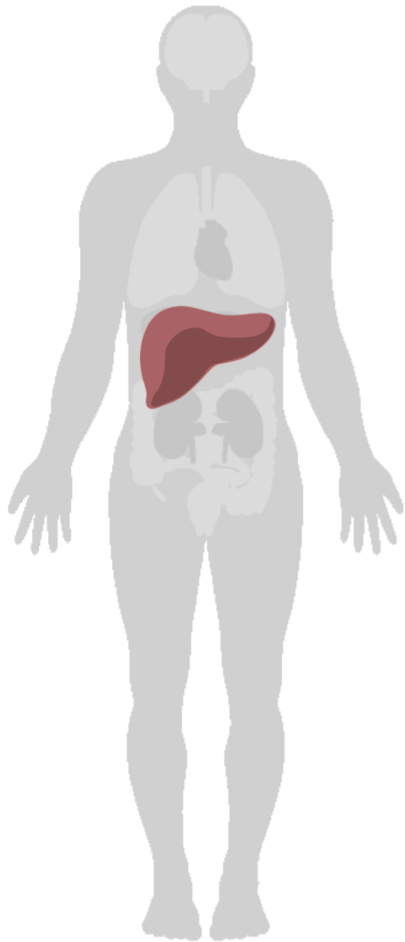
Cart-based non-prenatal systems



338,000 addressable ultrasound systems x \$40,000 ENDRA accessory³ = \$13b+ market

Initial Application: Quantification of Liver Fat For NAFLD-NASH¹

SIGNIFICANT CLINICAL NEED FOR NON-INVASIVE, COST EFFECTIVE DIAGNOSTIC TOOL



OVER 1.4 BILLION PEOPLE GLOBALLY AFFECTED BY NAFLD-NASH¹

- Metabolic disorder: Fat accumulation in the liver causing organ stress (NAFLD) & inflammation (NASH).
 - Often asymptomatic, needs to be monitored.
 - Can progress to scarring (Fibrosis), cell death (Cirrhosis), and Cancer
- Drivers: obesity, diabetes, Hep-C, drugs
- Total annual U.S direct medical costs for NAFLD alone: \$103B³
- By 2025, NAFLD-NASH likely the greatest root cause of liver transplants⁵

NO PRACTICAL DIAGNOSTIC TOOLS

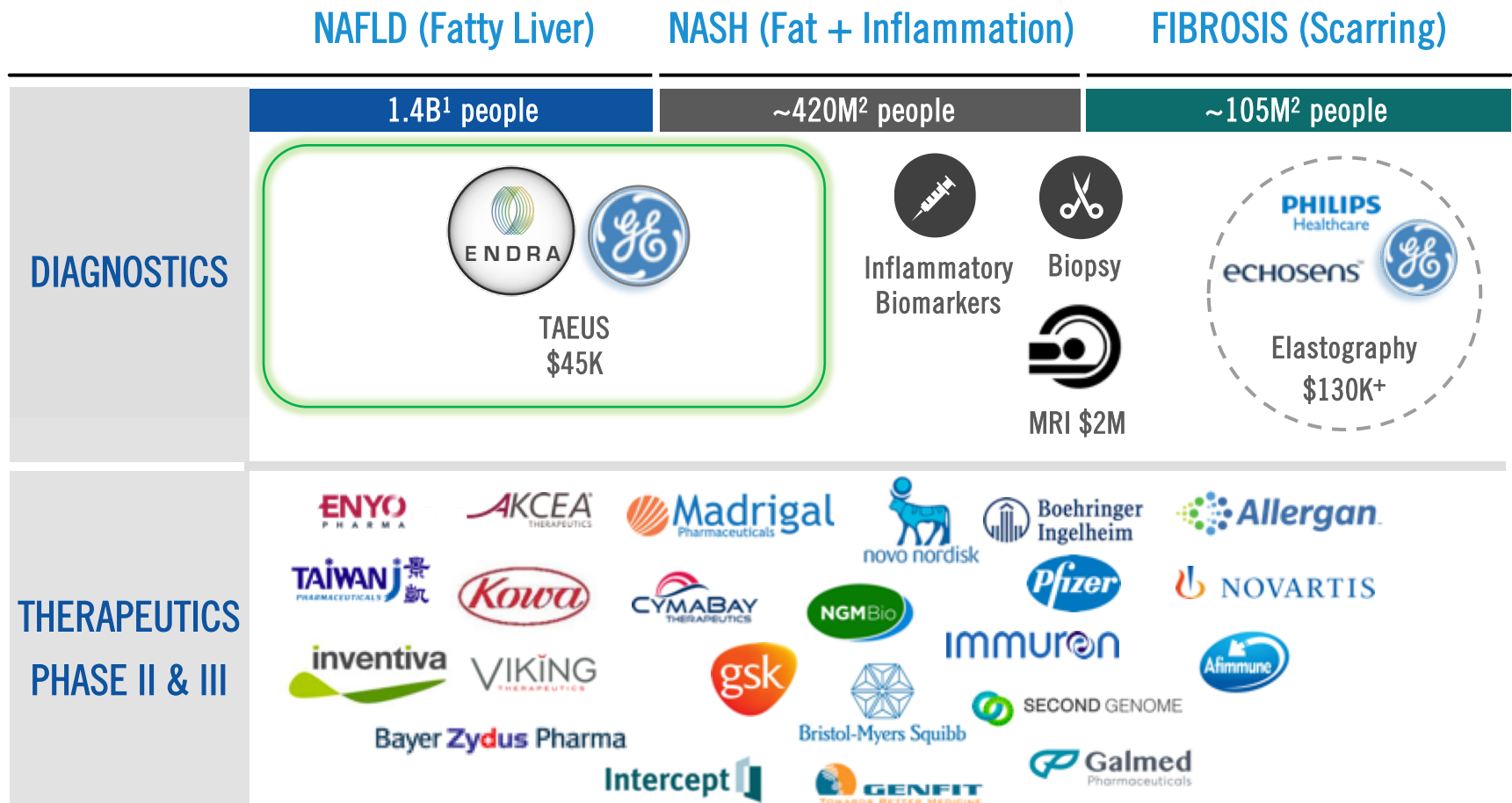
MRI: Accurate but... very expensive, not point-of-care, limited global access

Surgical biopsy: Invasive and concerns re: measurement variability

Blood tests: Cannot quantify fat. 25%+ of sufferers have normal enzymes

Liver Disease Diagnostic & Therapy Landscape

LIVER FAT: AN IMPORTANT COMPONENT OF NAFLD-NASH, AND THE TARGET OF MANY THERAPEUTICS



ENDRA - GE Healthcare Partnership: 2016 to Present

FOCUSED ON EARLY ASSESSMENT OF NON-ALCOHOLIC FATTY LIVER DISEASE

GE: GLOBAL ULTRASOUND MARKET LEADER; ~30% MARKET SHARE

PARTNERSHIP SUPPORTS LATE STAGE DEVELOPMENT & COMMERCIAL LAUNCH



Two-year exclusive partnership renewed in January 2018

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

“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
Vice President and General Manager, General Imaging Ultrasound
GE Healthcare

ENDRA TAEUS™ Liver Application Roadmap

ESTIMATED TIMELINE FOR KEY MILESTONES

2019

2020

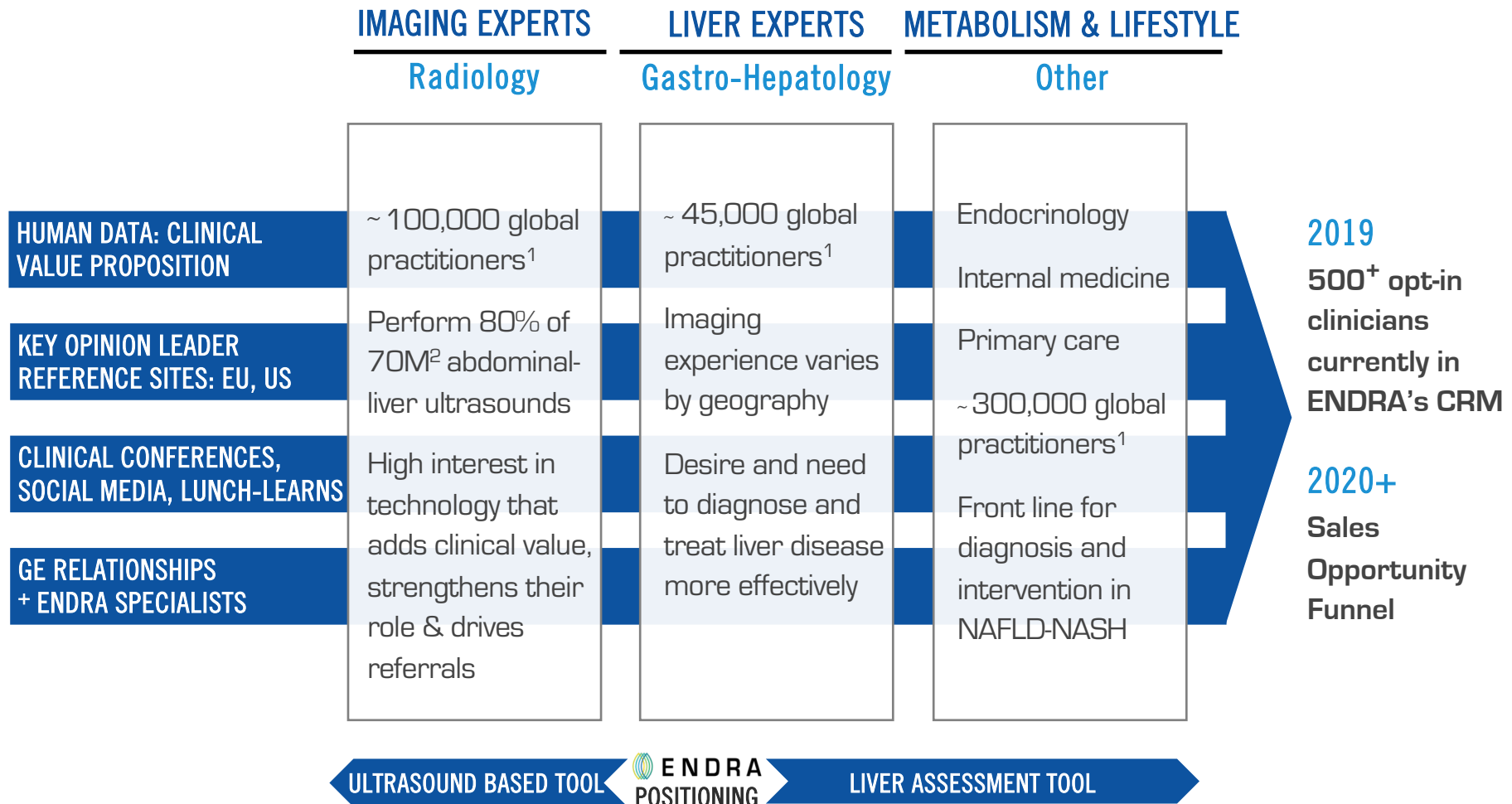
- ✓ Launch Artificial Intelligence collaboration
- ✓ Secure ISO-13485 certification
- ✓ Generate first human data from feasibility study
- ✓ Surpass 50 IP assets in portfolio
- ✓ Kick-off additional clinical studies
- ✓ Build pre-commercial awareness
- Submit CE Mark application
- Submit U.S. 510(k) application

- Obtain CE Mark certification
- Receive 510(k) clearance
- Surpass 70 IP assets in portfolio
- Execute controlled launch in EU and U.S:
Early adopters, influencers
- Update results from clinical studies
- Establish commercial organization
- Ramp global commercialization

Continually engage strategic partners: pharma & device

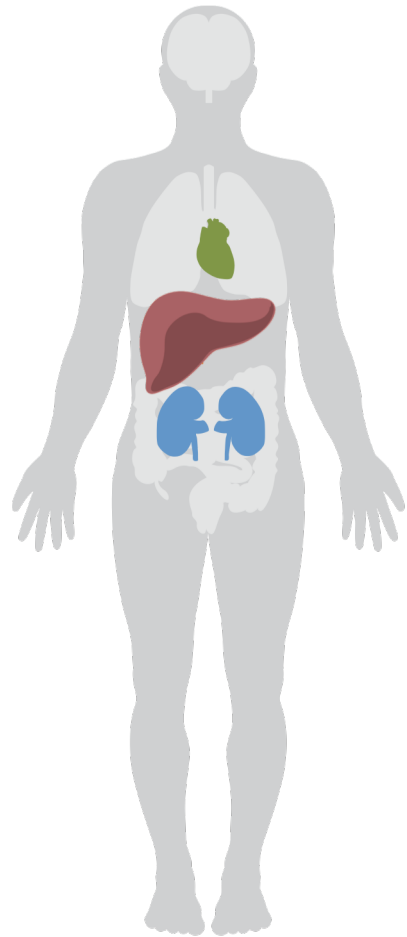
Driving Commercial Success For ENDRA's Technology

MULTIPLE PRE-COMMERCIAL & POST-LAUNCH ELEMENTS TO DRIVE AWARENESS, INTEREST AND TRIAL



ENDRA Opportunity #2: Guidance of Energy-Based Surgery

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

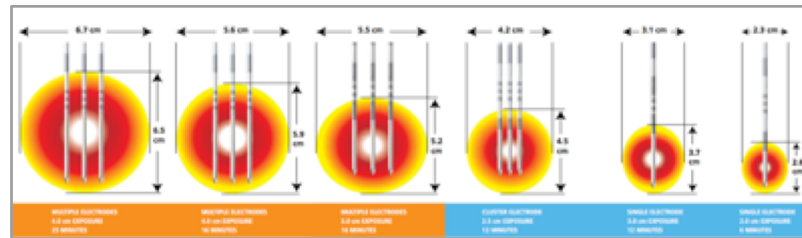


5+ MILLION RF ABLATION PROCEDURES ANNUALLY¹

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

CURRENT TOOLS ARE INACCURATE OR IMPRACTICAL

Printed guidelines (below) or expensive MRI



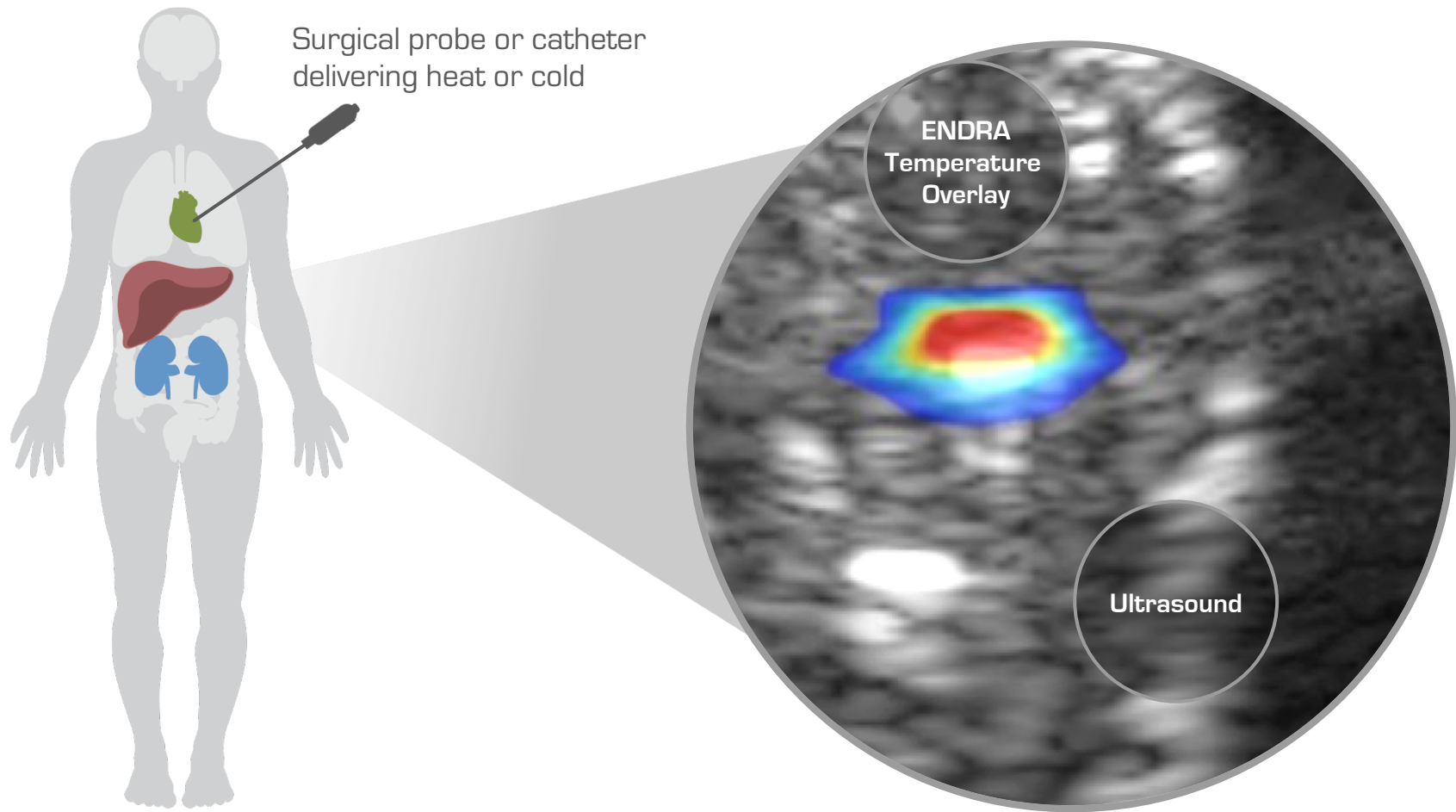
Manufacturer's printed RF ablation guidelines

“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 (Retired),
The University of Michigan

TAEUS Guidance of Energy-Based Surgery

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



Contact Us

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ENDRA Human Studies Approach: 2019-2020⁺

CONTROLLED, PHASED CLINICAL DEVELOPMENT STRATEGY

	ENDRA-INITIATED STUDIES	VERIFICATION & VALIDATION	INDEPENDENT INVESTIGATOR INITIATED
TAEUS TECHNOLOGY	<ul style="list-style-type: none"> Feasibility product design 	<ul style="list-style-type: none"> Gen. 1 product 	<ul style="list-style-type: none"> Gen. 1/1+ product
OBJECTIVES	<ul style="list-style-type: none"> Develop clinical workflow, product ergonomics, test quantitative algorithms Collect first <u>human</u> data and better characterize baseline clinical utility Generate documents for CE & 510(k) applications Leverage improvements into Gen. 1 product design 	<ul style="list-style-type: none"> Collect first NAFLD <u>patient</u> clinical data Establish clinical value proposition for commercialization Engage reference sites in target geographies Leverage learnings for commercial product design & marketing 	<ul style="list-style-type: none"> Expand clinical experience Generate data on clinical impact & outcomes Support peer reviewed study publications Establish reference sites in target geographies Leverage learnings for future product design & marketing
SITES	<ul style="list-style-type: none"> Robarts Research Institute 	<ul style="list-style-type: none"> Rocky Vista University Others to be announced 	<ul style="list-style-type: none"> U.S & EU sites to be selected

ENDRA Life Sciences

KEY STATISTICS

(as of August 30, 2019)

Common Stock Price (NASDAQ: NDRA)	\$1.70
Warrant Price (NASDAQ: NDRAW) ¹	\$0.65
Shares Outstanding	7.4M
50 Day Average Daily Volume (Common)	96K
Market Capitalization	\$12.6M
Management / Director Ownership	12.9%



A typical cart-based ultrasound system (left) with a conceptual illustration of ENDRA's Gen.1 technology (right)

Capitalization Table

AS AUGUST 1, 2019*

COMMON SHARES	ISSUED & OUTSTANDING	FULLY DILUTED
Shares Issued in IPO	1,932,000	14.5%
October, 2018 Offering	1,477,750	11.1%
November, 2018 Offering	1,385,750	10.4%
Other Shareholders	2,321,963	17.5%
Management & Directors	305,179	2.3%
Common Shares Outstanding	7,422,642	55.9%
WARRANTS & OPTIONS		
Warrants Issued in IPO	2,086,560	15.7%
Warrants Issued for July 2019 Note	1,910,540	14.4%
Management & Directors	1,410,969	10.6%
All Other	451,583	3.4%
Warrants & Options Outstanding	5,859,652	44.1%
FULLY DILUTED ISSUED & OUTSTANDING		
	13,282,294	100.0%

ENDRA Technology Benefits For Key Stakeholders

POTENTIAL 6-MONTH PAYBACK¹ UNTIL DEDICATED REIMBURSEMENT SECURED


POTENTIAL TAEUS BENEFITS - SHORT TERM	CLINICIAN	PATIENT	PAYER
Earlier detection through cost-effective screening & diagnosis	•	•	•
Increase utilization of existing, reimbursed ultrasound ¹	•		
Patient ownership. Fewer referrals [from primary care] to CT/MRI	•		
No safety risks: No ionizing radiation, contrast agents, or surgery		•	

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™

Ultrasound Technology Evolution

A HISTORY OF NEW TECHNOLOGIES EXPANDING ULTRASOUND UTILITY AND DRIVING M&A ACTIVITY

	1960 - 2000	2000 - 2016	2020+
NEW TECH	<p>Doppler Ultrasound</p> <p>Cardiac imaging</p> <p>3D imaging</p> <p>Contrast agents</p> <p>Color Doppler</p>	<p>Harmonic imaging</p> <p>Elastography</p> <p>CMUT technology</p> <p>Miniaturization</p> <p>4D</p>	 <p>Tissue Composition</p> <p>Tissue Temperature</p> <p>Tissue Perfusion</p> <p>Vascular Imaging</p>
M&A ADOPTION	<p>Siemens / Quantum</p> <p>Philips / ATL \$800M</p> <p>GE / Vingmed \$244M</p> <p>Siemens / Acuson \$500M</p> <p>Philips / Agilent \$1.7B</p>	<p>Siemens / Sensant</p> <p>FujiFilm / SonoSite \$998M</p> <p>Hitachi / Aloka \$315M</p> <p>Samsung / Medison \$262M</p>	<p>Potential Strategic Partners</p> <p>Ultrasound OEMs</p> <p>Veterinary Companies</p> <p>Pharma (NAFLD, cancer)</p> <p>Thermo-ablation OEMs</p> <p>Interventional Cardiology</p>

Select Clinical & Strategic Partner Feedback

“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
Vice President and General Manager
General Imaging Ultrasound
GE Healthcare

“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

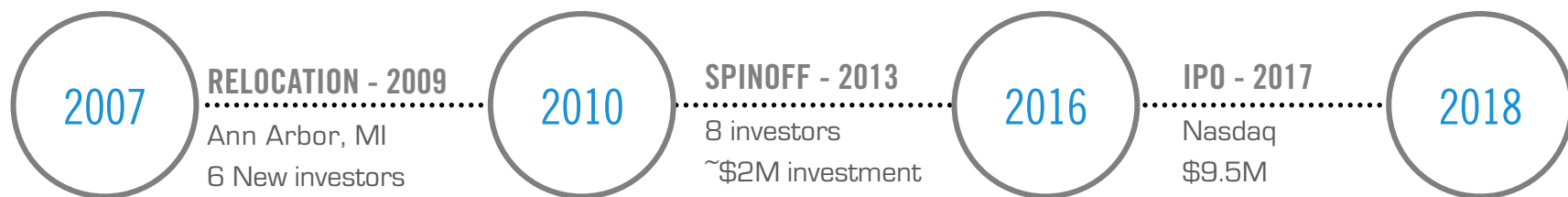
“Fatty liver would be a GREAT application of ENDRA’s technology. If you could quantify fat at the point-of-care, a lot of clinicians would find it very useful.”

Jonathan Rubin, M.D
Head for Ultrasound & Abdominal [Retired]
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
Associate professor of ultrasound at
Rocky Vista University.
Adjunct assistant research professor of radiology at **Weill Cornell Medicine**



ENDRA ESTABLISHED

Boston, MA

Name derived from
Indian God of Thunder &
Lightning (Indra)

Enlight Biosciences,
PureTech, Merck,
others

In-licensed 5 patents

LAUNCH NEXUS-128

Worlds first 3D photo-
acoustic pre-clinical
imaging system

Near-infrared light to
stimulate animal tissue
for cancer research

Customers grow to
include Stanford,
Purdue, U. Michigan,
Jiaotong-Shanghai,

PIVOT TO CLINICAL

Thermo Acoustic
Enhanced Ultrasound
(TAEUS)

Uses RF energy to
stimulate human tissue

GE Healthcare partnership

Initial focus on liver
disease

START HUMAN STUDY

~41 IP assets

Renew GE partnership

Sources and notes

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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.

PAGE 9

- 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 Scientific American, NAFLD America's Greatest Health Risk of 2015? Hyder Jamal MD, Feb., 2015

Median Medicare inpatient charge per NAFLD patient alone: \$36K⁴.
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 interest in liver disease, and may not reflect companies' strategy or position

PAGE 14

- 1 ENDRA global estimate derived from Association of American Medical Colleges, AMA, Euro Stats: 2015 and other sources
- 2 ENDRA global estimate derived from Diagnostic Ultrasound Imaging Global Analysis & Market Forecasts, GlobalData, 2014

PAGE 15

- 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, cryotherapy and HIFU.