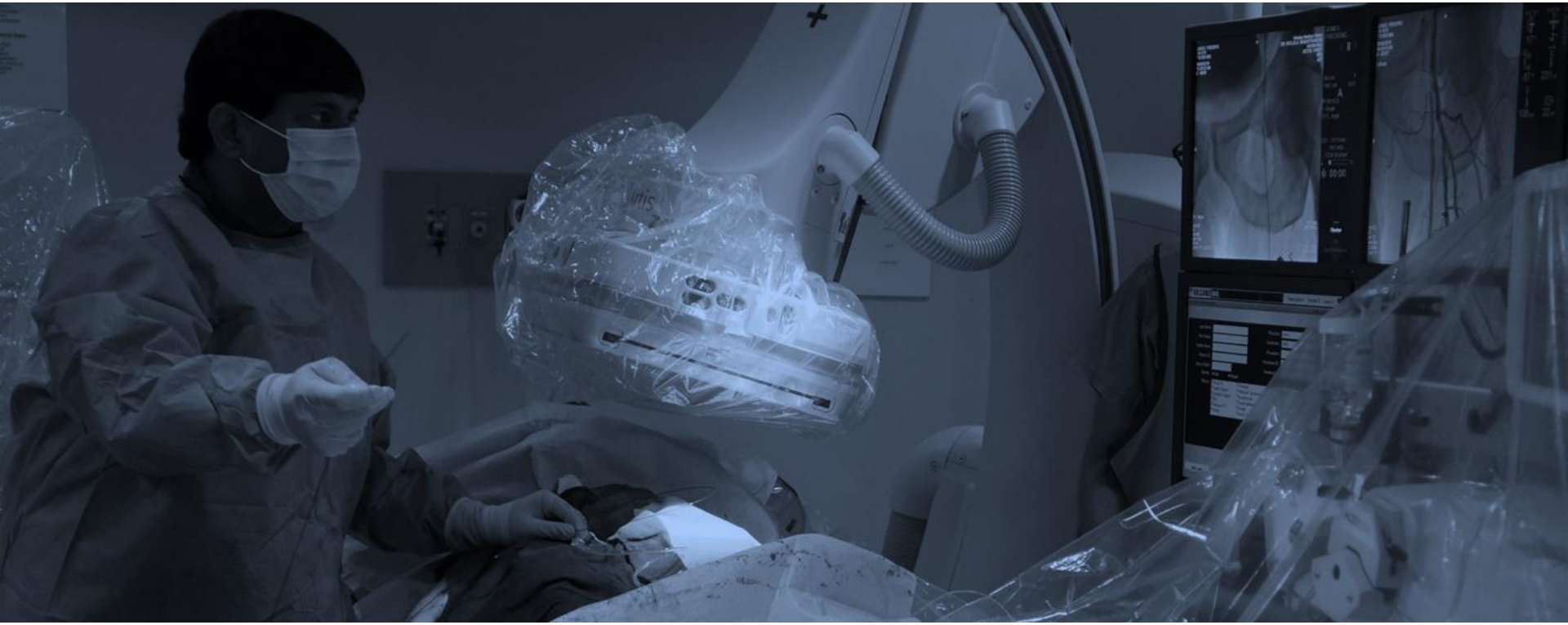

Ra Medical Systems, Inc.

NYSE: RMED

Corporate Presentation

September 2020

Disclaimer

Certain statements in this presentation and the accompanying oral commentary are forward-looking statements. These statements relate to future events or the future financial performance of Ra Medical Systems, Inc. (the "Company") and involve known and unknown risks, uncertainties and other factors that may cause the actual results, levels of activity, performance or achievements of the Company or its industry to be materially different from those expressed or implied by any forward-looking statements. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "potential" or other comparable terminology. All statements other than statements of historical fact could be deemed forward-looking, including any expectations regarding investment returns; any projections of financial information; any statements about historical results that may suggest trends for our business; any statements of the plans, strategies, and objectives of management for future operations; any statements of expectation or belief regarding future events, potential markets, market size, market opportunities, or technology developments; any statements regarding sales and expansion strategies; any statements regarding our intention to seek additional indications for our products; and any statements of assumptions underlying any of the items mentioned. The Company has based these forward-looking statements on its current expectations, assumptions, estimates and projections. While the Company believes these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which are beyond the Company's control. These and other important factors may cause actual results, performance or achievements to differ materially from those expressed or implied by these forward-looking statements. For a list and description of the risk and uncertainties inherent in the forward-looking statements, see the Company's Annual Report on Form 10-K for the year ended December 31, 2019 and in its other filings with the Securities and Exchange Commission. The forward-looking statements in this presentation are made only as of the date hereof. Except as required by law, the Company assumes no obligation and does not intend to update these forward-looking statements or to conform these statements to actual results or to changes in the Company's expectations.

This presentation also contains estimates, projections and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry and our business. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified the accuracy and completeness of the information obtained by third parties included in this presentation. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

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Highlights

- Excimer laser platform with FDA-approved applications addressing Peripheral Artery Disease (PAD) and Dermatology markets
- DABRA technology to target atherectomy segment of PAD market*; US market > $550 million
- DABRA strategy focused on (1) multiple engineering projects to improve performance and (2) FDA-approved clinical study to obtain an atherectomy indication
- PHAROS technology treats chronic skin diseases such as psoriasis, vitiligo, atopic dermatitis and leukoderma. Skin conditions affect ~125 million worldwide.
- Focused on developing Pharos growth strategy to build on ~$5-6 million annual revenue rate
- Both platforms have established reimbursement in US with favorable economics for physician offices
- Experienced leadership team with significantly strengthened Engineering, Clinical and Quality Assurance teams

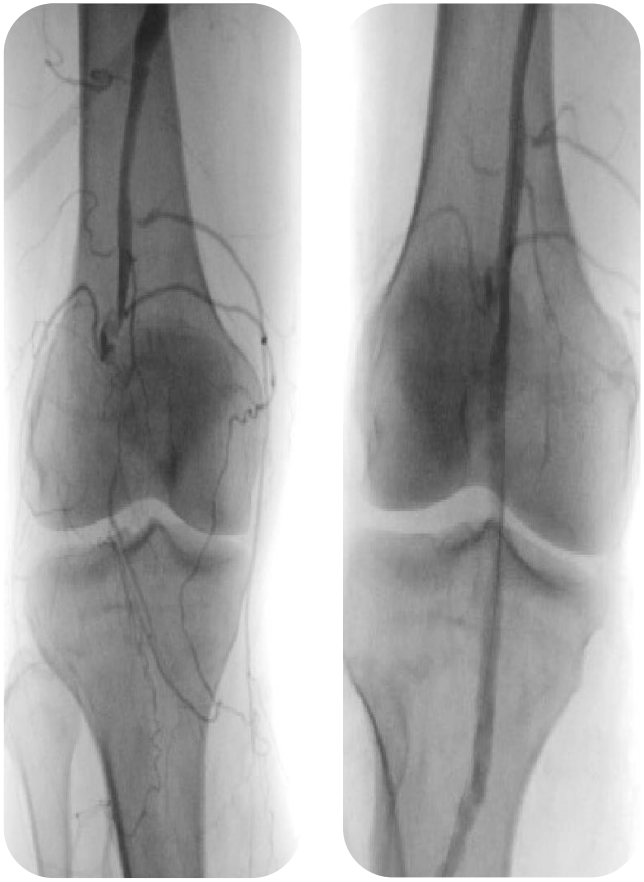
* IDE trial for atherectomy indication in process

Ra Medical Technology

- **DABRA**—Excimer laser that utilizes disposable catheters for crossing total chronic occlusions (CTOs) and ablating a channel in occlusive peripheral vascular disease. DABRA is used as a tool to treat peripheral artery disease (PAD), a form of peripheral vascular disease.
  - Photoablation to disintegrate plaque in the artery
  - Designed to track the patient's true lumen
  - Established safety profile, effective, easy-to-use, and competitively priced
  - No serious device-related adverse events reported in our 2017 pivotal study or in our post-market surveillance
  - Regulatory clearances in US and Europe

- **PHAROS**—Dermatology, same laser platform as DABRA
  - US FDA 510(k) clearance and Europe CE Mark for psoriasis, vitiligo, atopic dermatitis and leukoderma

Peripheral Artery Disease



Only 20 to 30% of peripheral artery disease patients are actively being treated

Disease Overview

- Atherosclerosis of the lower extremities—most commonly in the legs
- Smoking, genetic predisposition, diabetes, age and obesity may increase risk
- Characterized by reduced blood flow to surrounding tissue
- If untreated can cause critical limb ischemia (CLI) resulting in ulceration, infection or gangrene and may result in limb amputation or death if left untreated

Disease Burden

- Up to 200,000 amputations performed annually in the US as a result of PAD

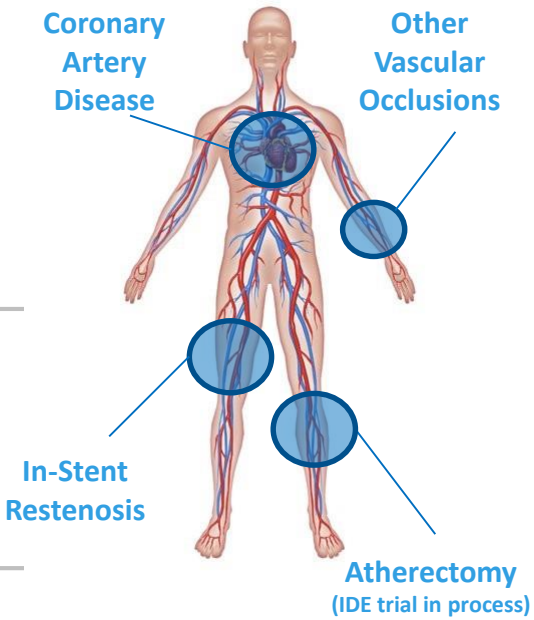
Patient Care

- Diagnosed by primary care physician, podiatrist or other specialist
- Treatment by interventional cardiologist, interventional radiologist or vascular surgeon

Large US Addressable Market Opportunity

KEY DRIVER	Current US Market Opportunity
PREVALENCE	>17 Million PAD Sufferers in the US
TREATED PATIENTS	Only 20–30% of PAD Patients actively treated
MARKET OPPORTUNITY	Annual US TAM Opportunity >$550 million[1]

Potential Future Growth Applications (Not FDA approved)



Key Market Drivers

- Increased Awareness
- Evolving Physician Practice Patterns

We target the high-growth, outpatient-based catheterization laboratories segment for PAD

1) For U.S. PAD atherectomy, based on third-party research

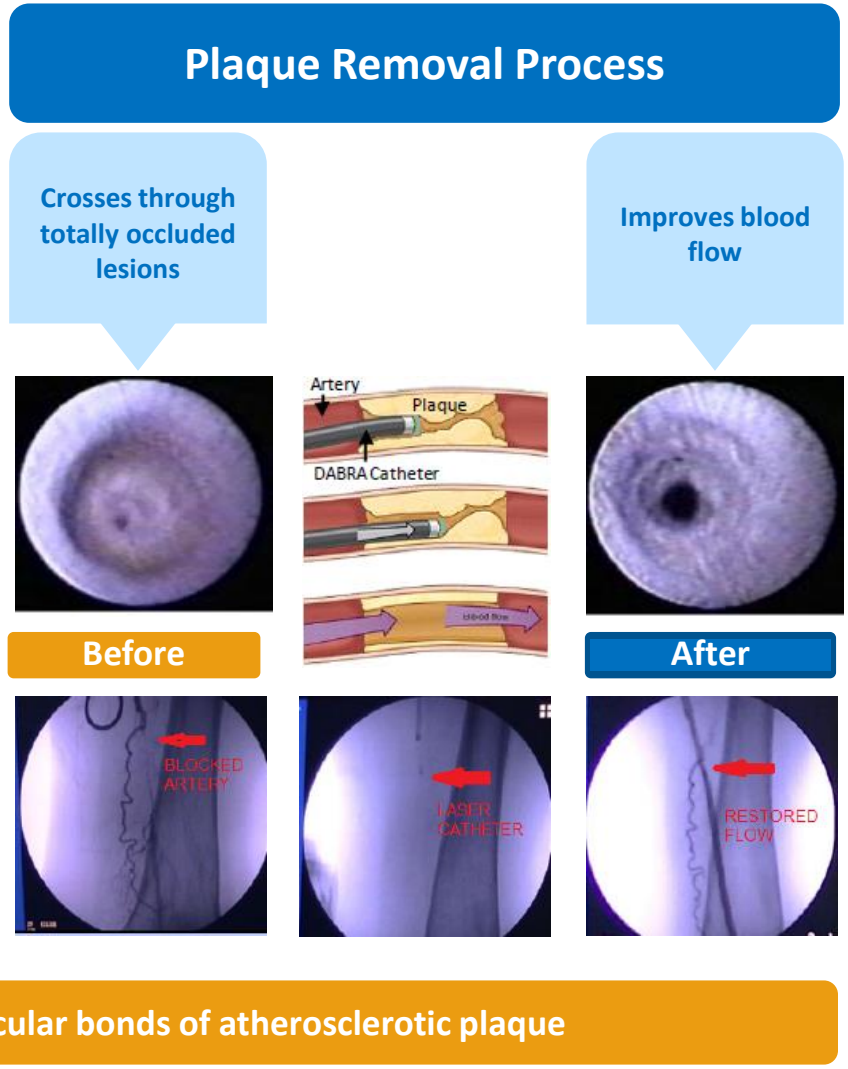
DABRA Technology and Mechanism of Action

DABRA Technology

- 308 nanometer excimer laser system
- Unique liquid-filled, full aperture ratio catheter
- High quality lumen
- Minimizes mechanical or thermal trauma

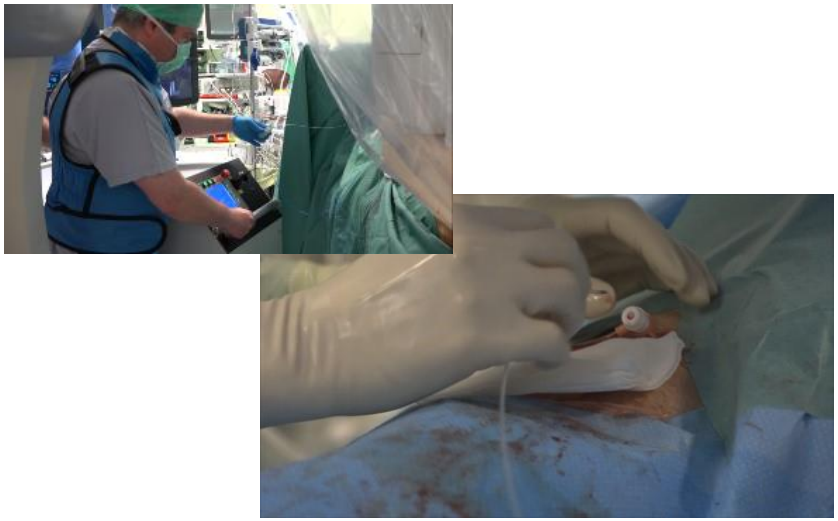
Mechanism of Action

- Photoablation
- Removes blockages by breaking the bonds of the obstructing plaque directly
- Plaque broken down into fundamental chemistry



Photoablation light energy breaks molecular bonds of atherosclerotic plaque

DABRA Advantages



Clearance and Reimbursement

- US FDA 510(k) clearance for crossing CTOs and ablating a channel in occlusive peripheral vascular disease
- US FDA IDE study underway to obtain an atherectomy indication
- CE Mark for laser atherectomy
- Established reimbursement for Office-Based Labs (OBLs) performing atherectomy procedures (IDE trial in process for U.S. atherectomy label)

Versatile Therapy

- Can cross and de-bulk wide variety of plaque
  - Soft thrombus to calcified plaque
- Tool used by physicians to treat CTOs prior to other alternative treatments
- Ability to use Above-the-Knee (ATK) and Below-the-Knee (BTK)
- Monotherapy or adjunct to angioplasty or other treatments

Cost Effective and Time Efficient

- Programs available without need for capital equipment purchase
- Low catheter cost
- Average of approximately 2.5 minutes of lasing time per procedure
- Intuitive interface

Clinically Demonstrated Solutions

Pivotal Study[1]

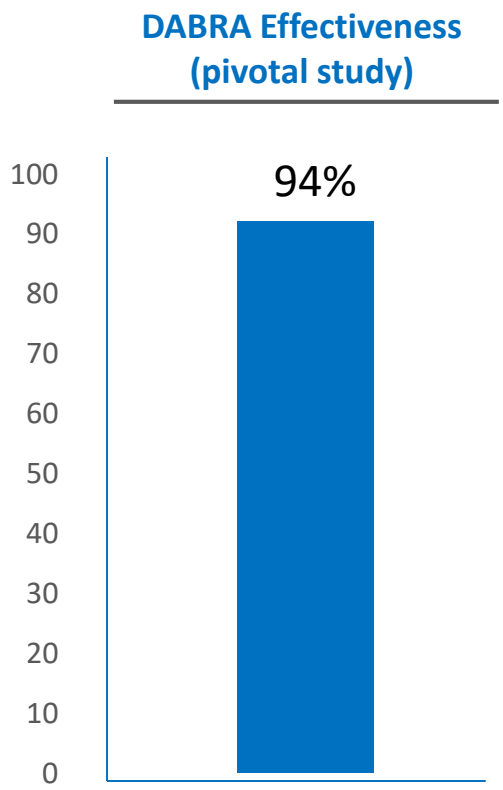
- Multi-site study at four sites in US and Mexico
- Enrolled 64 patients with target blockage refractory to guidewire crossing

Primary Efficacy Endpoint:

- Successful crossing of target lesion based on angiographic analysis at time of procedure

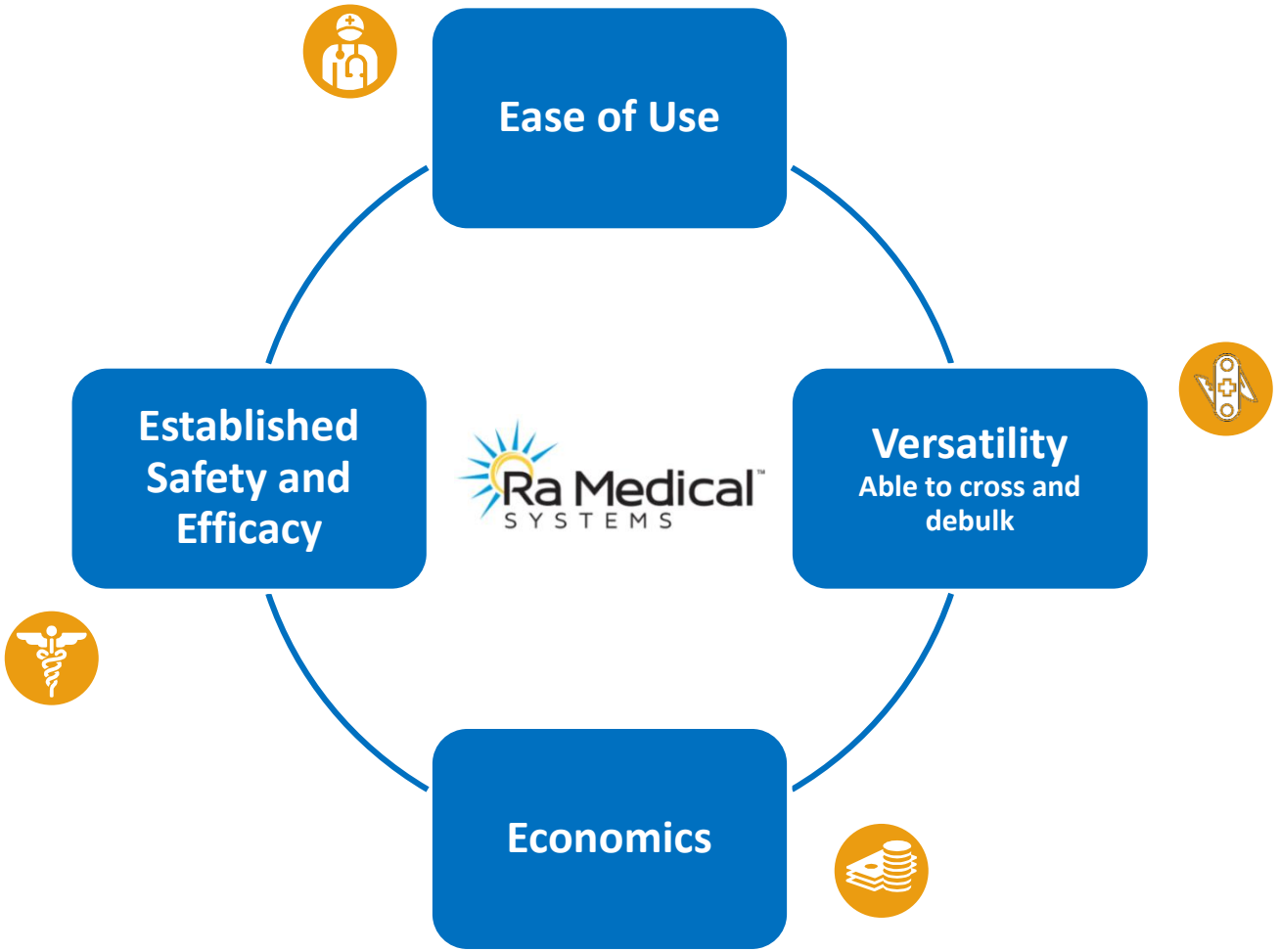
Safety Record

- 0% reported device-related serious adverse events[2] (SAE), observed in our 2017 pivotal study



1. The pivotal study formed the basis of our May 24, 2017 510(k) clearance.
2. For information on how we defined device-related SAEs for purposes of our pivotal study, see https://clinicaltrials.gov/ct2/show/study/NCT02653456

DABRA Will Target Office-Based Labs



We believe our solution expands provider economics

Engineering Efforts Focused on Three Initiatives to Improve DABRA's Performance

Extend shelf life

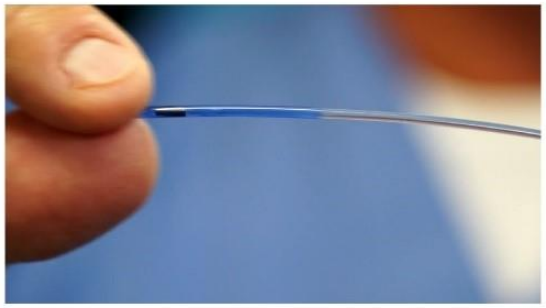
- 6 months minimum with target 12 months or greater

Improve deliverability

- Develop a catheter with an enhanced outer-jacket to allow physicians to better access difficult anatomy

Develop guidewire compatible platform

- Project outsourced to an experienced engineering firm to develop a version of the DABRA catheter that is compatible with standard interventional guidewires



An FDA-Approved IDE Atherectomy Indication Study is Underway

Study size:

- Up to 10 sites, 100 patients

Primary efficacy endpoint:

- Mean reduction in percent diameter stenosis in each subject's primary lesion as measured by angiography following treatment with the DABRA Laser System and before any other treatment. [The mean difference in percent diameter stenosis, post-procedure, is > 20%]

Primary safety endpoint:

- The incidence of 30-day Major Adverse Events (MAEs) as adjudicated by the Clinical Events Committee (CEC) :
  - All-cause mortality,
  - Unplanned major target limb amputation (at or above the ankle),
  - and/or Clinically driven target limb revascularization (CD-TLR).
    [The incidence of MAEs at 30-Days is < 20%]

Status:

- 5 sites cleared to enroll, 3 subjects treated as of September 10, 2020

Pharos Excimer Laser

Used by Physicians to Treat Chronic Skin Diseases

- **Psoriasis**—chronic autoimmune disorder that causes cells to rapidly accumulate and affects the surface of the skin causing scales and red patches
- **Vitiligo**—autoimmune condition causing the skin to turn white due to the loss of pigment from the melanocytes, the cells that produce the pigment melanin, which give the skin its color
- **Atopic dermatitis**—results in itchy, red, swollen and cracked skin

Market Opportunity for Chronic Skin Disease

- Psoriasis, vitiligo and atopic dermatitis are common skin disorders
- Psoriasis affects ~7.5 million in US, >2% of the population
  - ~$135 billion annually in direct, indirect, quality of life and comorbidity health care costs
- Vitiligo affects 0.5%-1.0% of the population worldwide
- Skin conditions affect ~125 million individuals worldwide
- ~17.8 million Americans suffer from dermatitis

Pharos Science, Advantages and Reimbursement

Pharos Science

- Same laser platform as DABRA
- 308-nanometer laser—the center of action spectrum for most immune-mediated inflammatory diseases
- Does not use heat or ablate lesions—treatments are generally painless
- Adjustable aiming beam accurately targets only diseased tissue, sparing healthy skin from exposure
- Delivers uniform dosing for optimal results
- Small footprint for space conservation, among the lightest of excimer lasers

Advantages

- Topical treatments, such as steroids and vitamin D derivatives, may require frequent ongoing application
- Pharmaceutical treatment may be associated with systemic side effects

Clearance and Reimbursement

- Granted FDA 510(k) clearance for psoriasis, vitiligo, atopic dermatitis and leukoderma
- Clearance from Europe CE Mark, and China Food and Drug Administration
- Reimbursed using established CPT codes for excimer laser treatment of inflammatory skin disease

Fully Operational Manufacturing Facility

Carlsbad, CA

- Sizable capacity for laser and catheter production
- 41,000 sq. ft. Carlsbad, CA with three controlled environments manufacturing facility fully staffed and operational
- Existing facility expected to be capable of manufacturing > 400 lasers/year and 140,000 catheters/year
- Fully capitalized with all equipment owned
- ISO13485 certified, FDA and CA state inspected

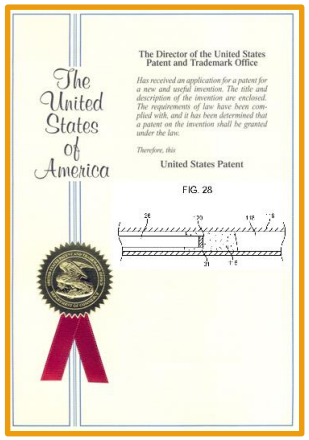
Laser Assembly

Controlled Environments

Intellectual Property Portfolio

- Patents covering several aspects of the laser systems and delivery device
- The Company believes that its intellectual property comprises novel and useful inventions that can be protected by patents, and as such, has filed patent applications directed to innovative methods and apparatus patents
- Issued patents as of September 10, 2020 include:

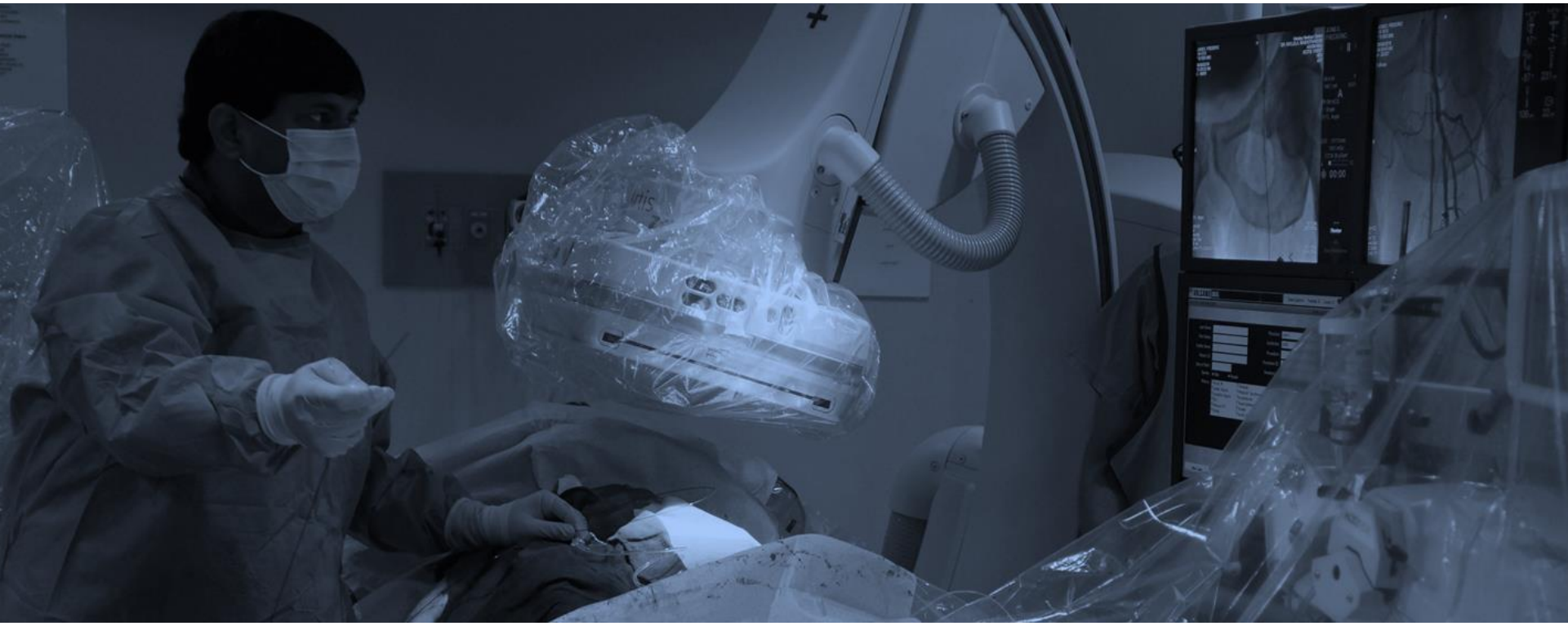
  6 US / 2 International



Patent/File No.	Title	Filing Date	Country	Status
9,700,655	Small flexible liquid core catheter for laser ablation in body lumens and methods for use	10/12/2012	USA	Issued
ZL201280061080.0	Small flexible liquid core catheter for laser ablation in body lumens and methods for use	10/12/2012	China	Issued
2765944	Small flexible liquid core catheter for laser ablation in body lumens and methods for use	10/12/2012	Europe	Issued
9,962,527	Methods and devices for treatment of stenosis of arteriovenous fistula shunts	10/15/2014	USA	Issued
10,245,417	Devices for extending shelf life of liquid core catheters	10/02/2017	USA	Issued
10,322,266	Method and device for treatment of stenosis of arteriovenous fistula shunts	10/2/2017	USA	Issued
10,384,038	Method and device for treatment of stenosis of arteriovenous fistula shunts	10/2/2019	USA	Issued
10,555,772	Laser ablation catheters having expanded distal tip window for efficient tissue ablation	11/22/2016	USA	Issued

Executive Team

Will McGuire	**Chief Executive Officer**	25 years med-tech experience, including COO of Spectranetics which was acquired by Philips for >$2 billon and CEO of Atheromed, a venture capital-backed peripheral atherectomy company. Also held senior roles at Volcano Corporation, Covidien, and Guidant Corporation. Most recently CEO of publicly-traded Second Sight Medical Products. MBA
Andrew Jackson	**Chief Financial Officer**	25 years finance experience. CFO and senior finance roles with several public and private companies in the life science industry, including med-tech sector and two vascular-focused companies (Celladon Corporation and REVA Medical). MBA and CPA (inactive)
Jeffrey Kraws	**President**	30 years Wall Street experience, including managing director and senior pharmaceutical analyst at First Union Securities, senior pharmaceutical analyst at BT Alex Brown & Sons, and serving in the treasury group at Bristol-Myers-Squibb Company. Currently on several public company boards. MBA
Dan Horwood	**General Counsel and Secretary**	20 years legal experience, including counsel at Wilson Sonsini Goodrich & Rosati, senior legal counsel at Groupon and six years at the SEC in the Division of Corporate Finance.



Financial Overview

Results of Operations

($ in thousands)	Six Months Ended June 30, 2020	Year Ended Dec. 31, 2019
Vascular Net Revenue	**$191**	**$1,275**
Dermatology Net Revenue	**$2,083**	**$5,924**
Total Net Revenue	**$2,274**	**$7,199**
Gross Profit (Loss)	**$(477)**	**$(1,651)**
Operating Expenses:		
Selling, General and Administrative (Incl. $1.7M and $20.4M stock comp exp.)	$14,181	$51,549
Research and Development (Incl. $0.2M and $1.5M stock comp exp.)	$3,248	$4,530
Total Operating Expenses	**$17,429**	**$56,079**
Loss from Operations	**$(17,906)**	**$(57,730)**
Net Loss	**$(17,822)**	**$(56,957)**
Adjusted EBITDA *	**$(14,612)**	**$(32,437)**

* Adjusted EBITDA is a non-GAAP measure and is calculated as net profit (loss) excluding interest income (expense), income tax expense and certain recurring, non-cash charges such as depreciation and amortization of long-lived assets as well as stock-based compensation expenses. See appendix for reconciliation to the most directly comparable GAAP measure.

Financial Position

($ in thousands)	As of June 30, 2020	As of Dec. 31, 2019
Cash and Cash Equivalents and Short Term Investments[1]	$29,380	$30,577
Working Capital[2]	$25,475	$29,186
Total Assets	**$40,691**	**$44,081**
Equipment Financing	$413	$558
Accumulated Deficit	$(134,979)	$(117,157)
Total Stockholders' Equity	**$26,984**	**$33,150**

1) In August 2020, we completed a public offerings raising net proceeds of approximately $10.6 million
2) We define working capital as current assets minus current liabilities

Highlights

- Excimer laser platform with FDA-approved applications addressing Peripheral Artery Disease (PAD) and Dermatology markets
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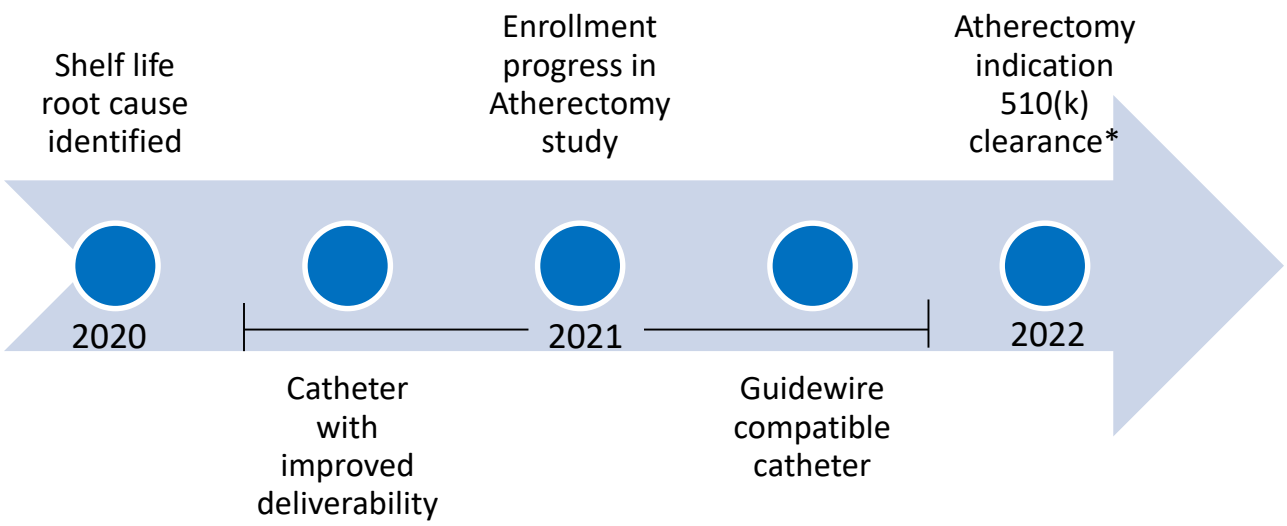
* IDE trial for atherectomy indication in process

Key Vascular Milestones



* Timing of study enrollment uncertain due to unpredictable ongoing impact of COVID-19

Appendix

Reconciliation of Net loss to Adjusted EBITDA

($ in thousands)	Six Months Ended June 30, 2020	Year Ended Dec. 31, 2019
Statement of Operations Data:		
Net loss	$(17,822)	$(56,957)
Depreciation and amortization	$1,214	$1,750
Interest income	$(124)	$(1,038)
Interest expense	$40	$250
Income tax expense	-	$15
EBITDA	$(16,692)	$(55,980)
Stock-based compensation	$2,080	$23,543
Adjusted EBITDA	$(14,612)	$(32,437)

Board of Directors

Martin Colombatto
Chairman. Former VP and General Manager of Broadcom

Maurice Buchbinder, MD
Interventional Cardiologist
Master of Surgery from McGill University

William Enquist
Former President of Global Endoscopy of Stryker

Will McGuire
Chief Executive Officer, Ra Medical
Former CEO Second Sight, former executive at Covidien, AtheroMed, Spectranetics

Richard Mejia
Former Partner of Ernst & Young

Mark Saad
Partner and COO of Alethea Capital Management LLC, Former CFO of Cytori Therapeutics and former executive director of UBS Investment Bank

Joan Stafslien
Former General Counsel of NuVasive and CareFusion