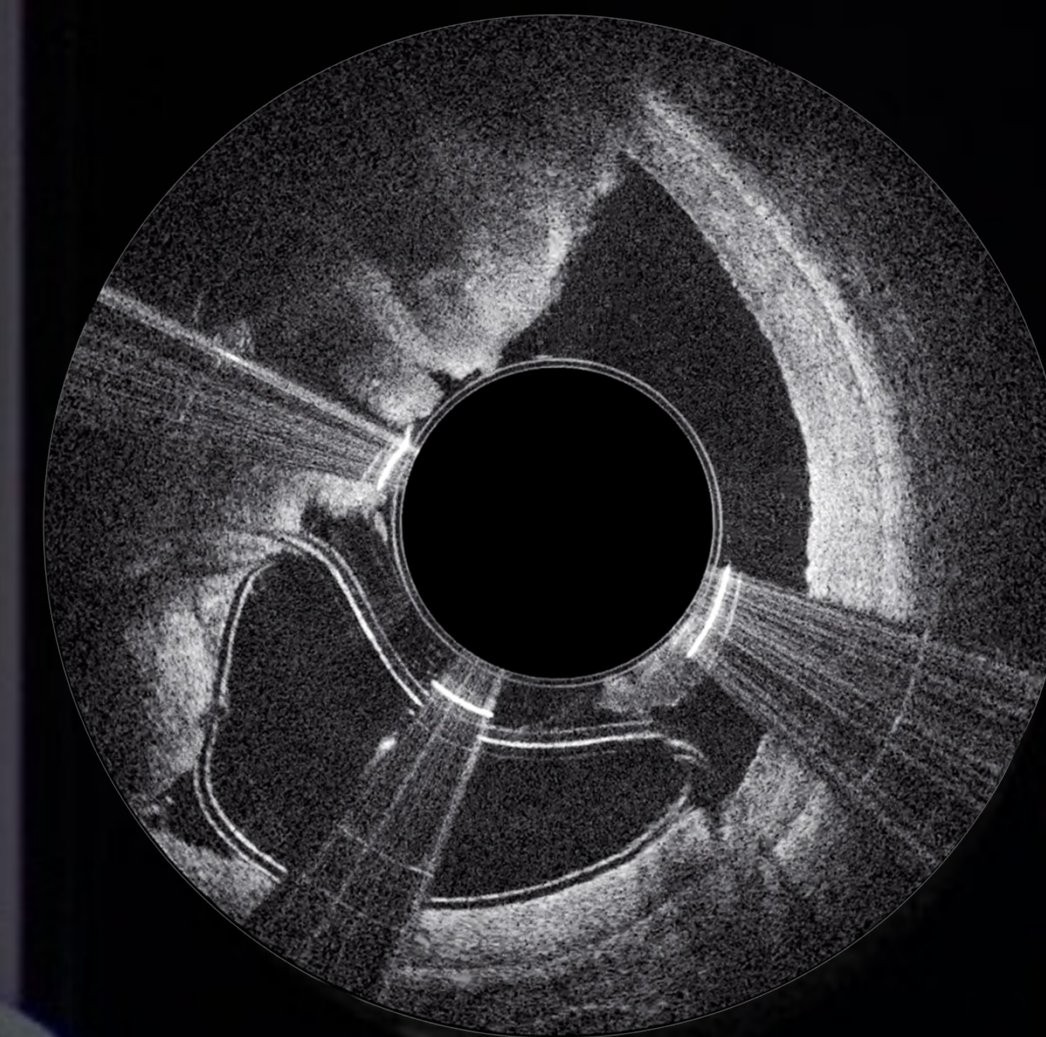




AVINGER
BEYOND POSSIBLE



**RADICALLY CHANGING THE WAY
VASCULAR DISEASE IS TREATED**

September 2022

SAFE HARBOR

These slides and the accompanying oral presentation contain forward-looking statements about Avinger, Inc. (“Avinger” or the “Company”) and its business. All statements other than statements of historical fact contained in this presentation, including statements regarding business strategy and plans and objectives for future operations are forward-looking statements. Avinger has based these forward-looking statements on its estimates and assumptions and its current expectations and projections about future events. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those that may be described in greater detail in the Company’s most recent quarterly report on Form 10-Q or annual report on Form 10-K filed with the U.S. Securities and Exchange Commission (the “SEC”). In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this presentation are inherently uncertain and may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Accordingly, you should not rely upon forward-looking statements as predictions of future events. Avinger undertakes no obligation to update publicly or revise any forward-looking statements for any reason after the date of this presentation, to conform these statements to actual results or to changes in Avinger’s expectations.

Certain data in this presentation was obtained from various external sources, and neither the Company nor its affiliates, advisers or representatives has verified such data with independent sources. Accordingly, neither the Company nor any of its affiliates, advisers or representatives makes any representations as to the accuracy or completeness of that data or to update such data after the date of this presentation. Such data involves risks and uncertainties and is subject to change based on various factors.

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DISRUPTIVE IMAGE-GUIDED THERAPY FOR VASCULAR DISEASE

Commercial-Stage Medical Device Company

Large Market Opportunity

In the U.S. over 20 million people projected to suffer from PAD¹; U.S. atherectomy market estimated to be >\$500 million² with over 200,000 procedures performed each year

Scalable Financial Model

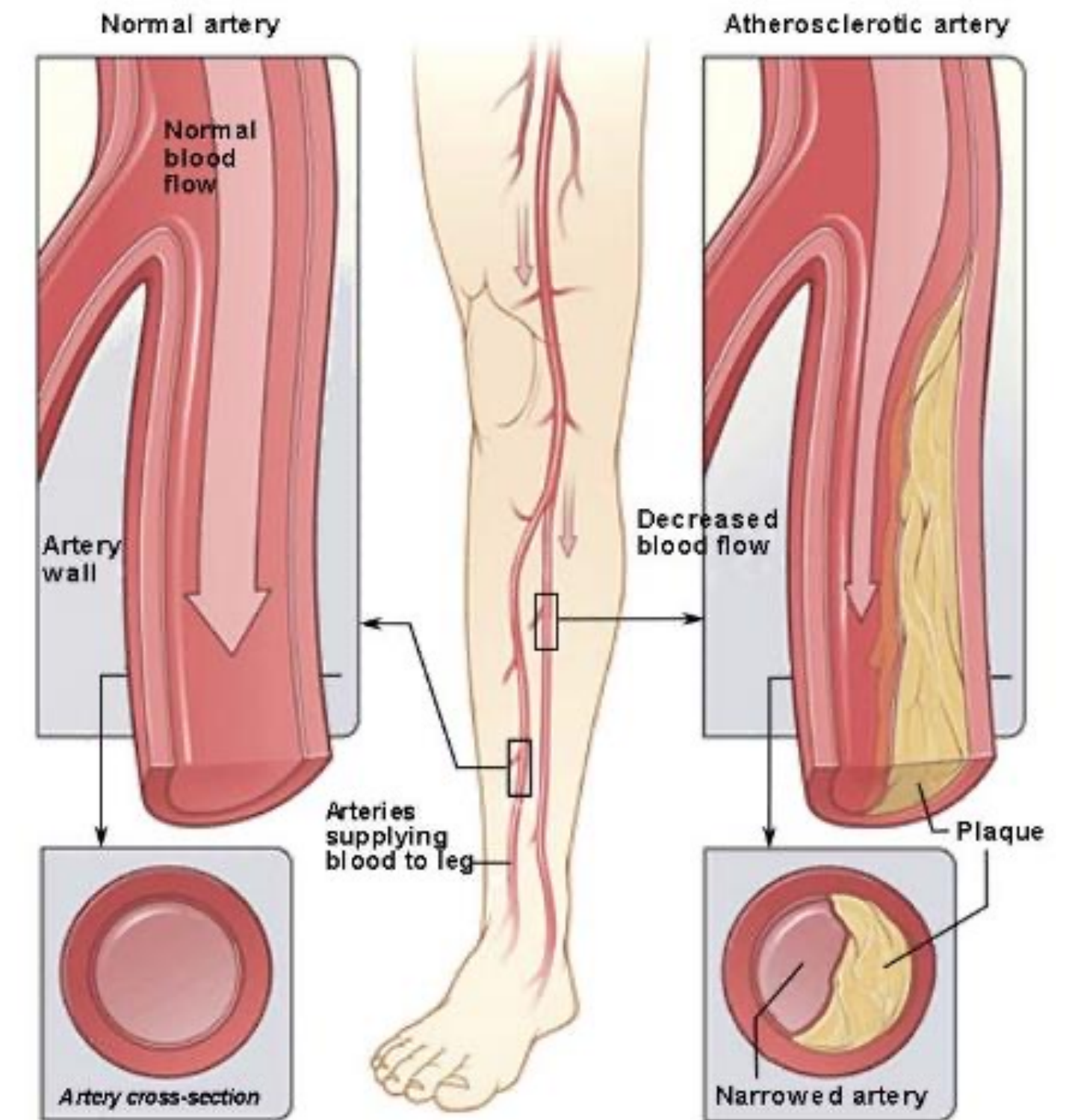
Ramping procedures expected to drive **increased revenue and contribution margin**, creating operating profit leverage

Robust Product Pipeline

Multiple new product launches anticipated in 2023 – 2025 to expand the addressable market and drive new revenue opportunities, including first entry into the coronary market

Extensive IP Portfolio

187 total patents granted and pending covering key aspects of design, manufacturing and therapeutic use of OCT imaging platform and devices



PERIPHERAL ARTERY DISEASE (PAD)

FIRST AND ONLY THERAPEUTIC CATHETERS WITH REAL-TIME IMAGE GUIDANCE

(1) The Sage Group 2010 (2) Millennium Research Group, December 2014. Image: Armstrong. Endovascular Today 2018

LUMIVASCULAR PLATFORM

REAL-TIME IMAGE-GUIDED THERAPY



LIGHTBOX

- 100+ active installed units
- FDA 510(k) cleared; CE Marking
- High-definition OCT imaging for diagnostic and therapeutic applications

OCT-GUIDED CATHETERS

ATHERECTOMY

PANTHERIS



PANTHERIS | SV

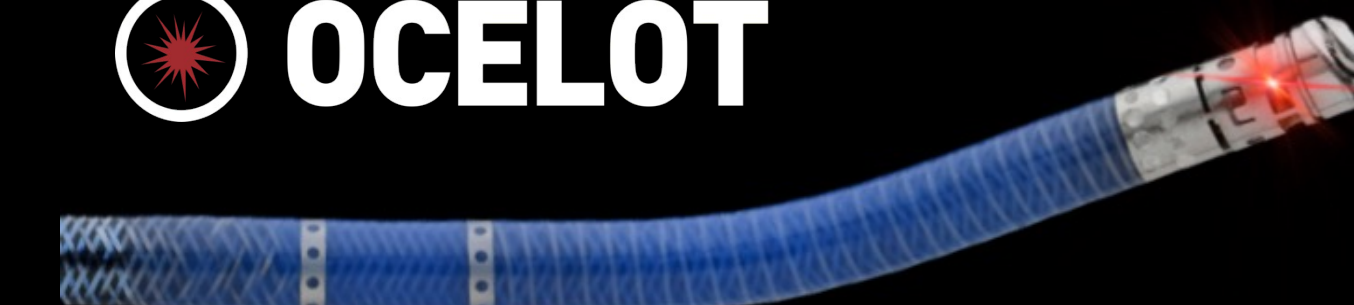


CTO CROSSING

TIGEREYE



OCELOT

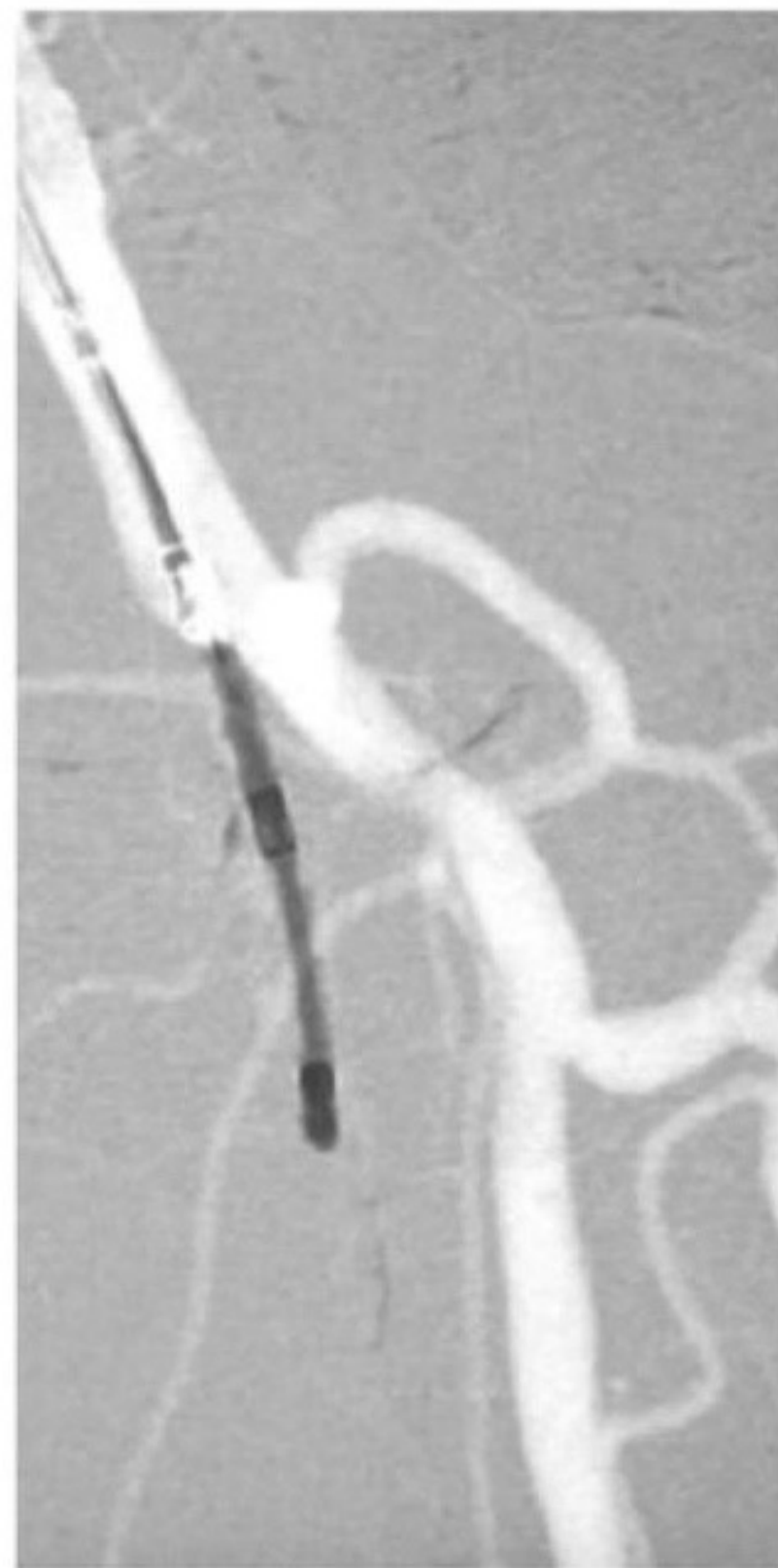


OCT-GUIDED THERAPY

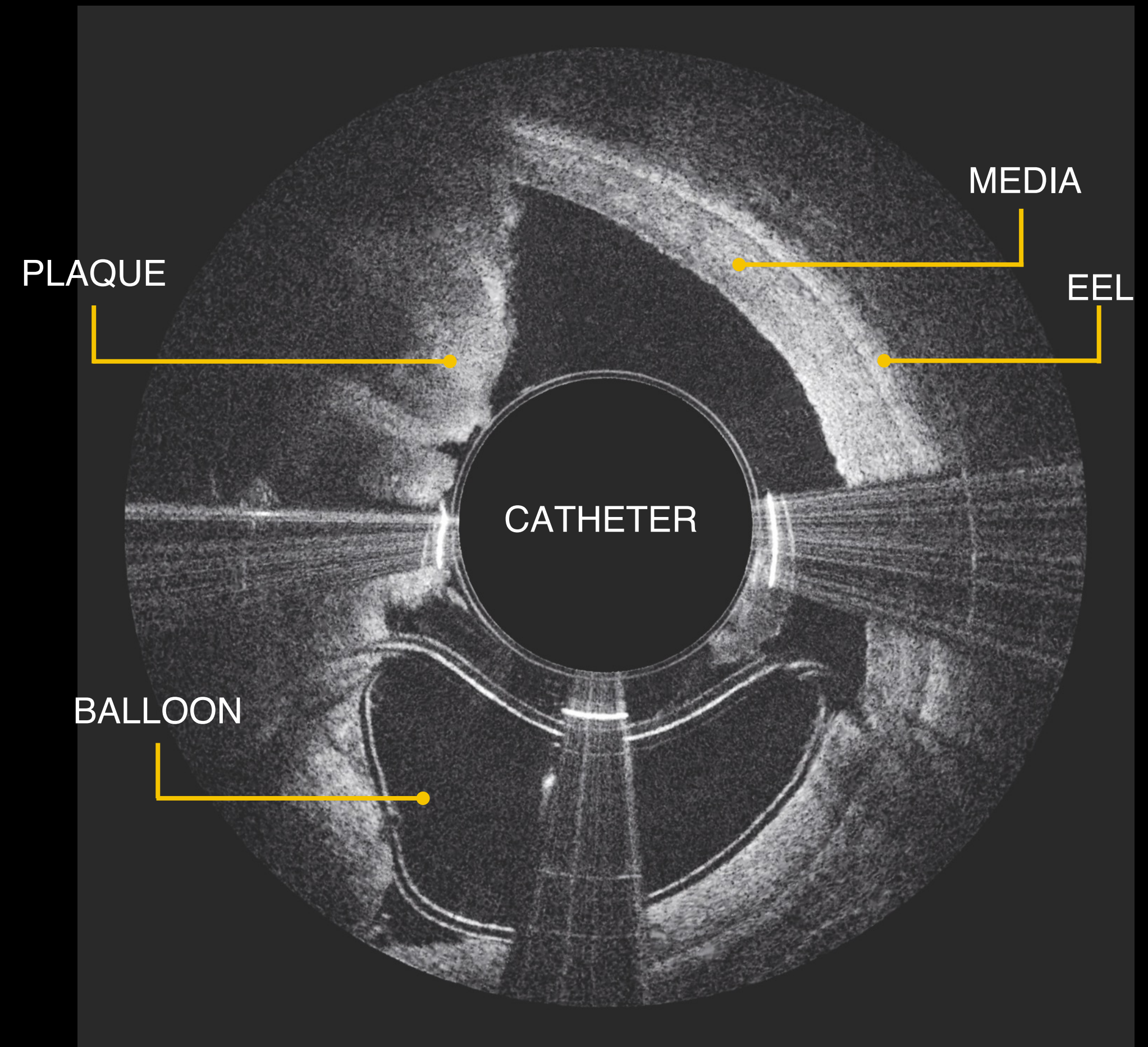
UNSURPASSED VISUALIZATION



FLUOROSCOPY (X-RAY)



OPTICAL COHERENCE TOMOGRAPHY (OCT)



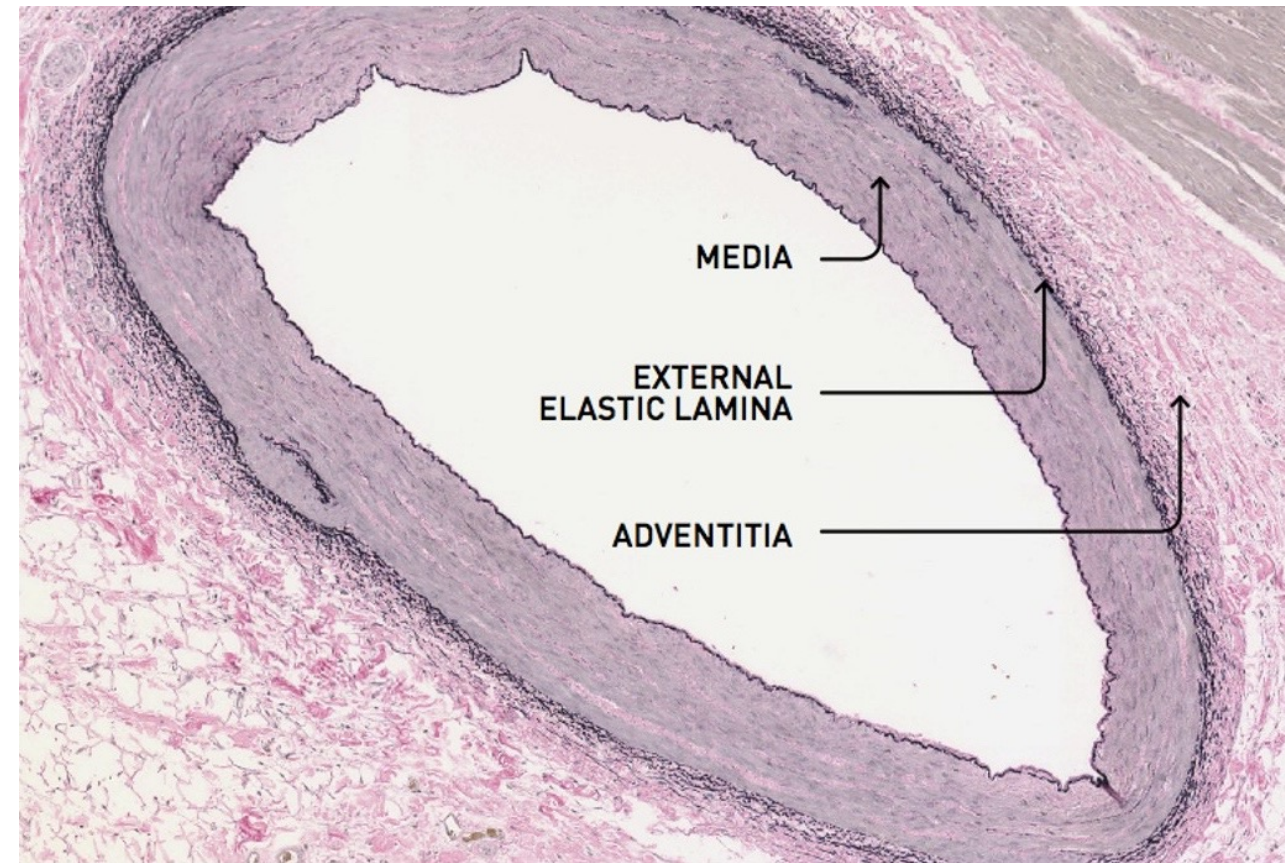
High Definition, Laser Light-Based,
No X-ray Radiation



ARTERIAL DAMAGE LEADS TO RESTENOSIS

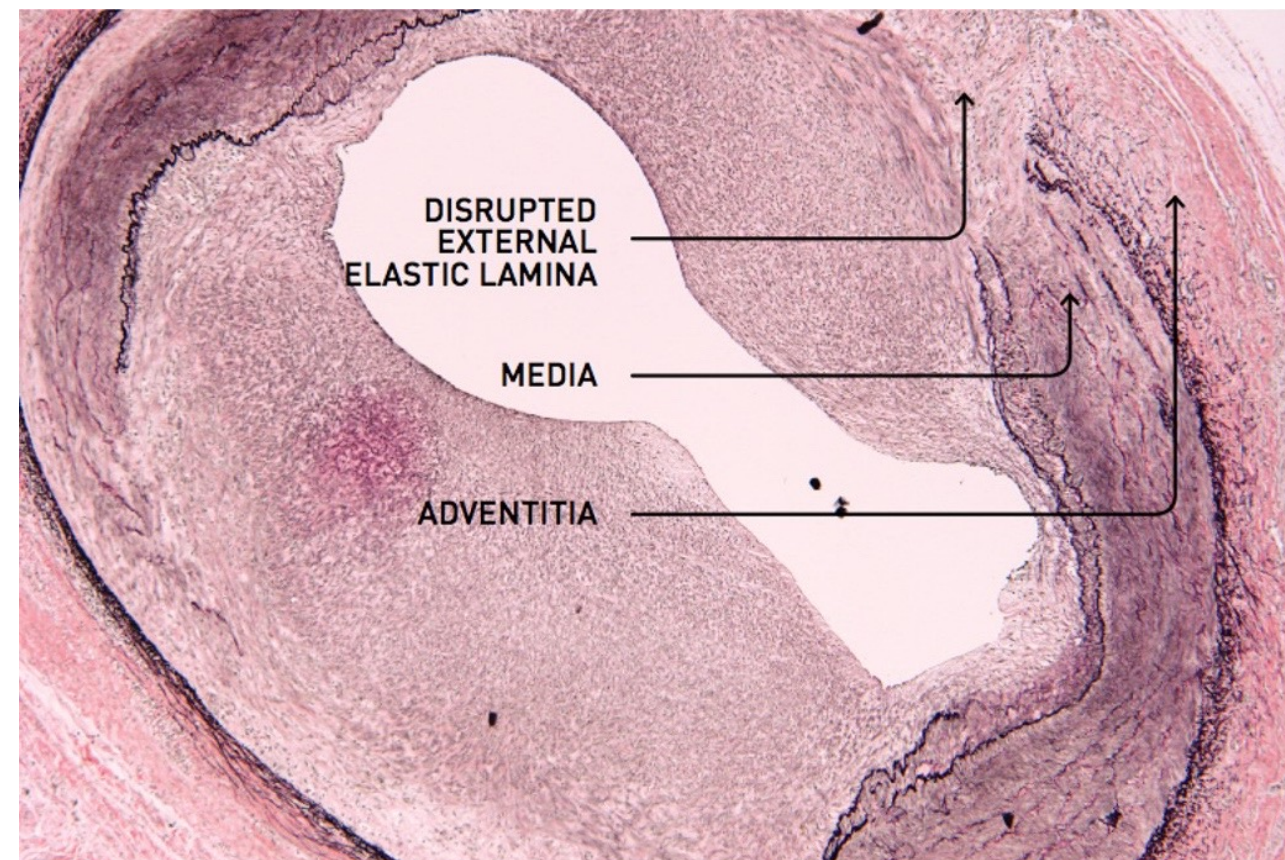
Healthy Artery

The external elastic lamina (EEL) is the border between the media and the adventitia.



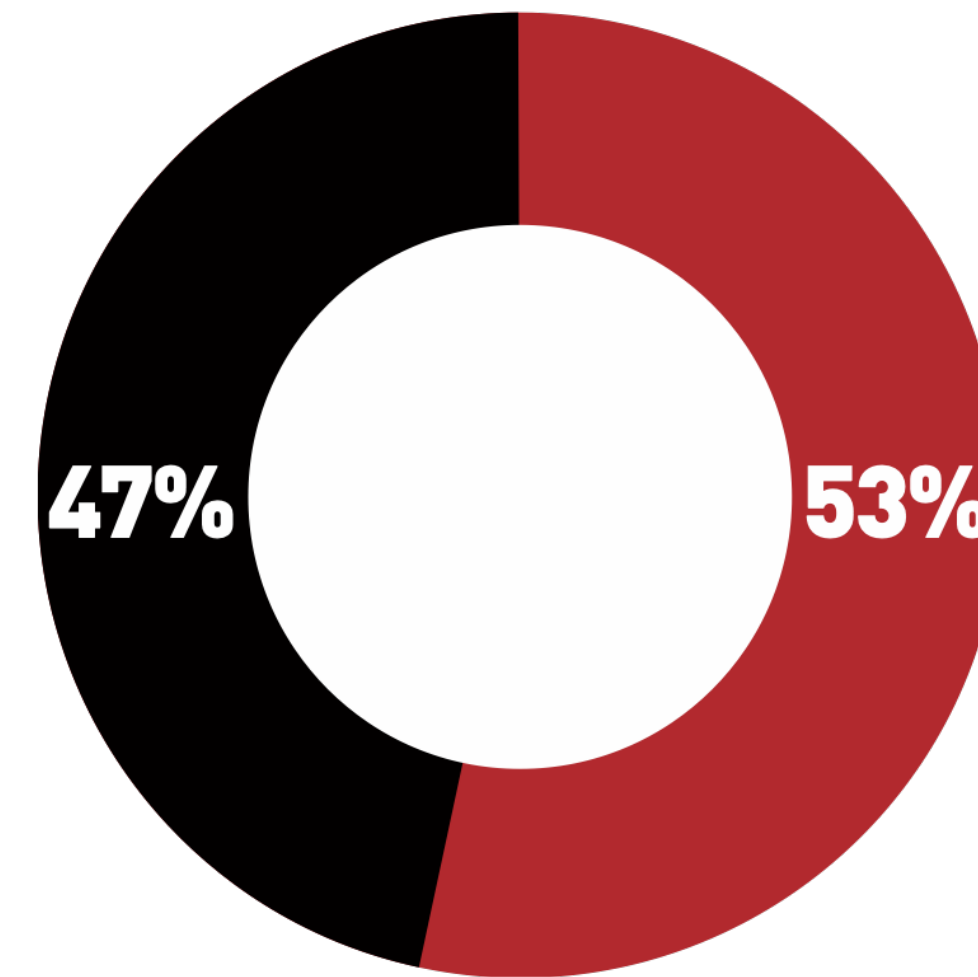
Restenosis

Disruption to EEL and adventitia leads to an aggressive healing response, commonly referred to as restenosis.

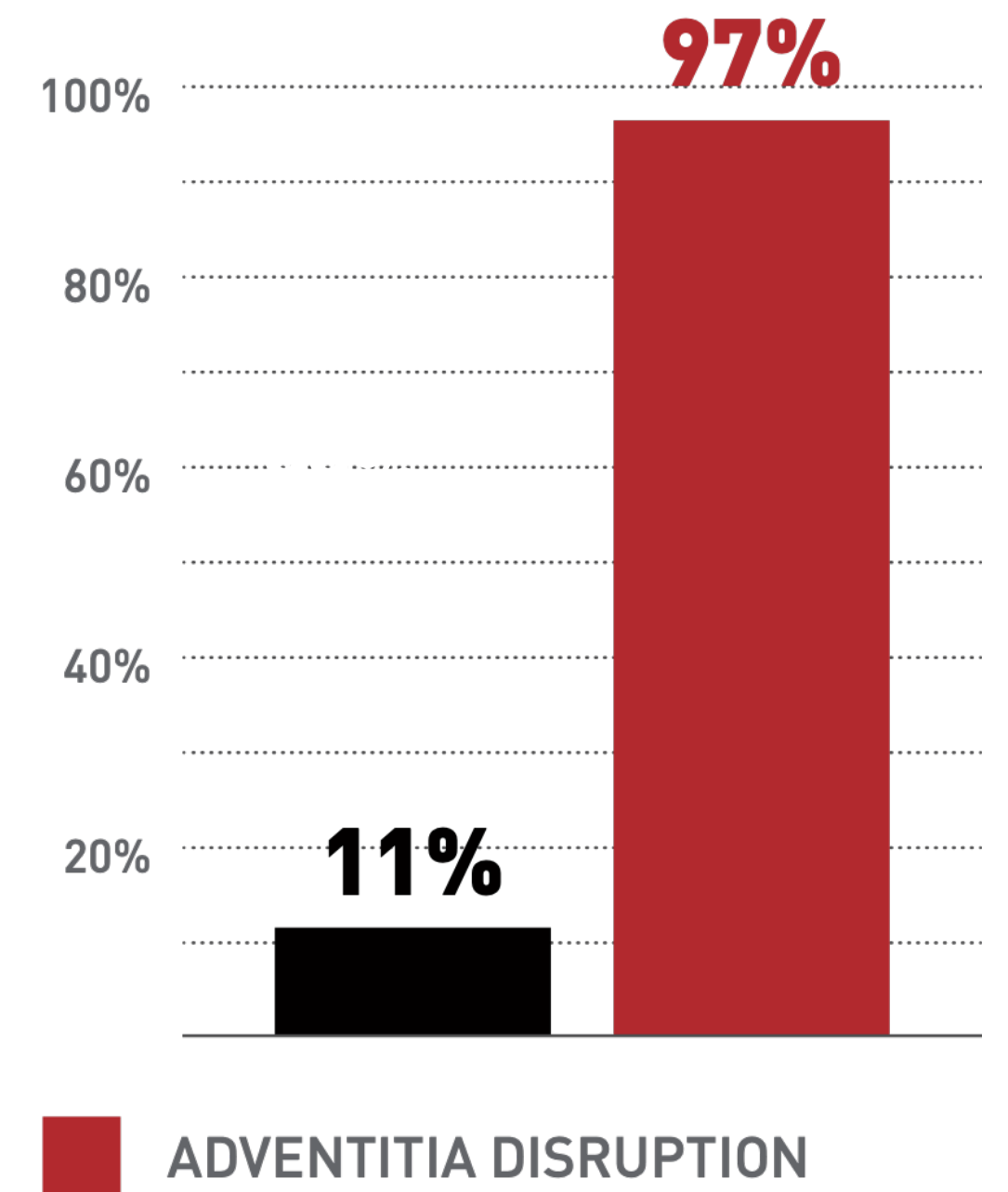


Traditional Atherectomy Clinical Study¹

PERCENT OF PATIENTS WITH ADVENTITIAL DISRUPTION



RESTENOSIS AT ONE YEAR



1. Tarricone, et al. J Endovasc Ther. 2015

AVINGER'S PERSPECTIVE

The best long term outcomes result from avoiding injury during treatment and maximizing luminal gain

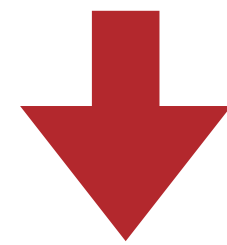
PANTHERIS

NEXT GENERATION ATHERECTOMY

VISUALIZATION AT THE POINT OF
THERAPY

+

DIRECTIONAL ATHERECTOMY



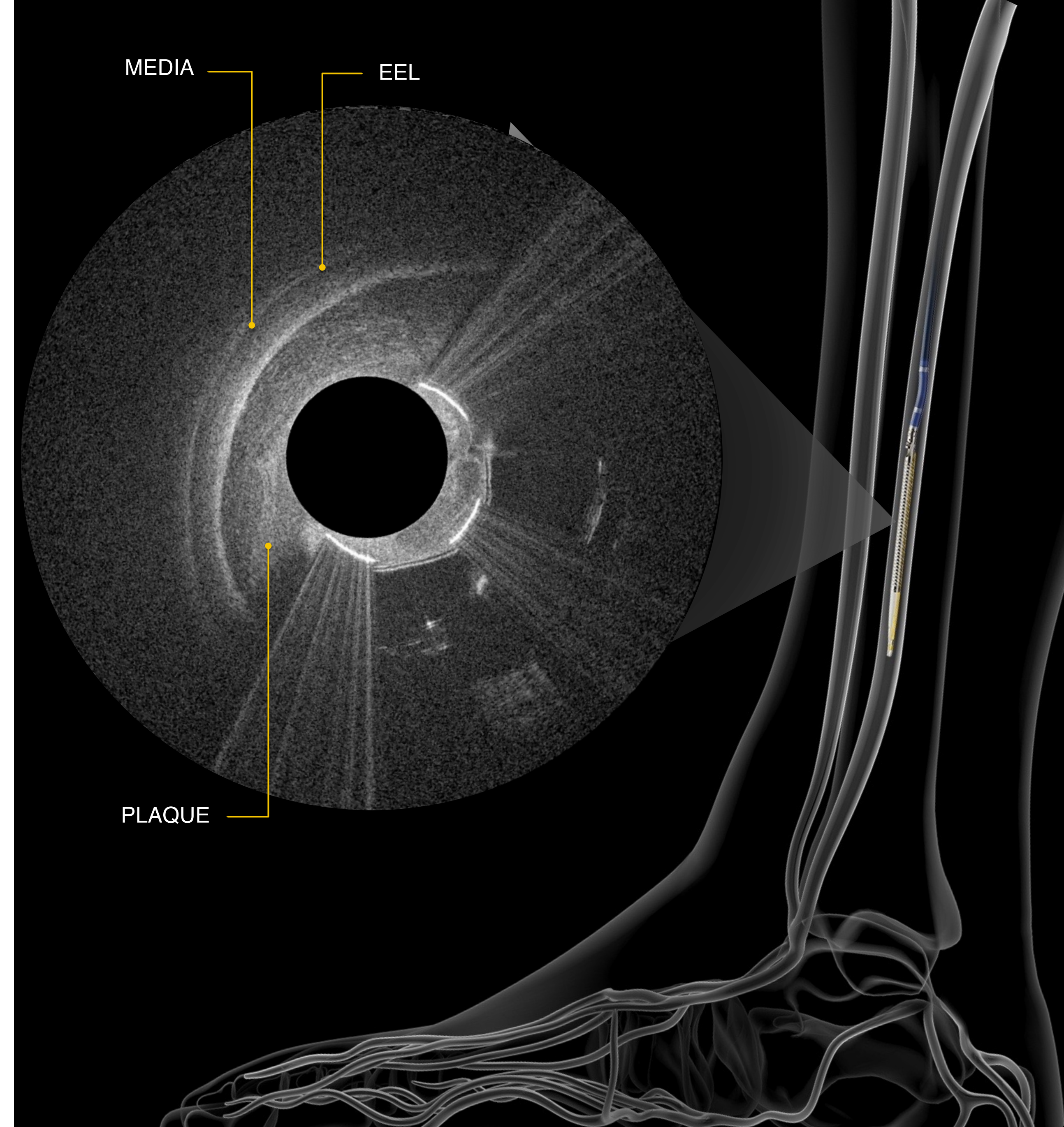
Targeted Therapy

Precise Control

Increased Efficiency

Optimal Safety

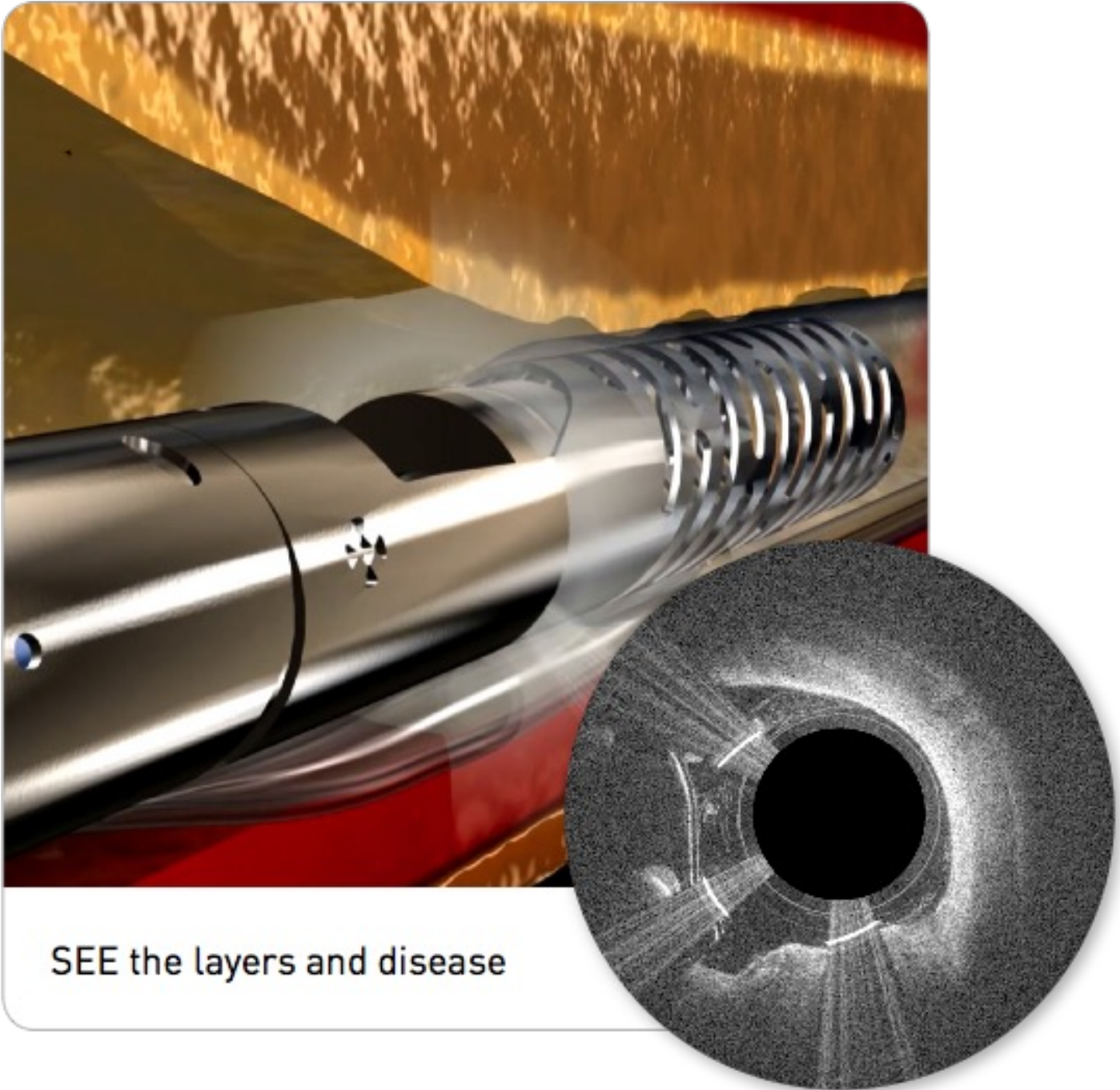
UNSURPASSED CLINICAL OUTCOMES



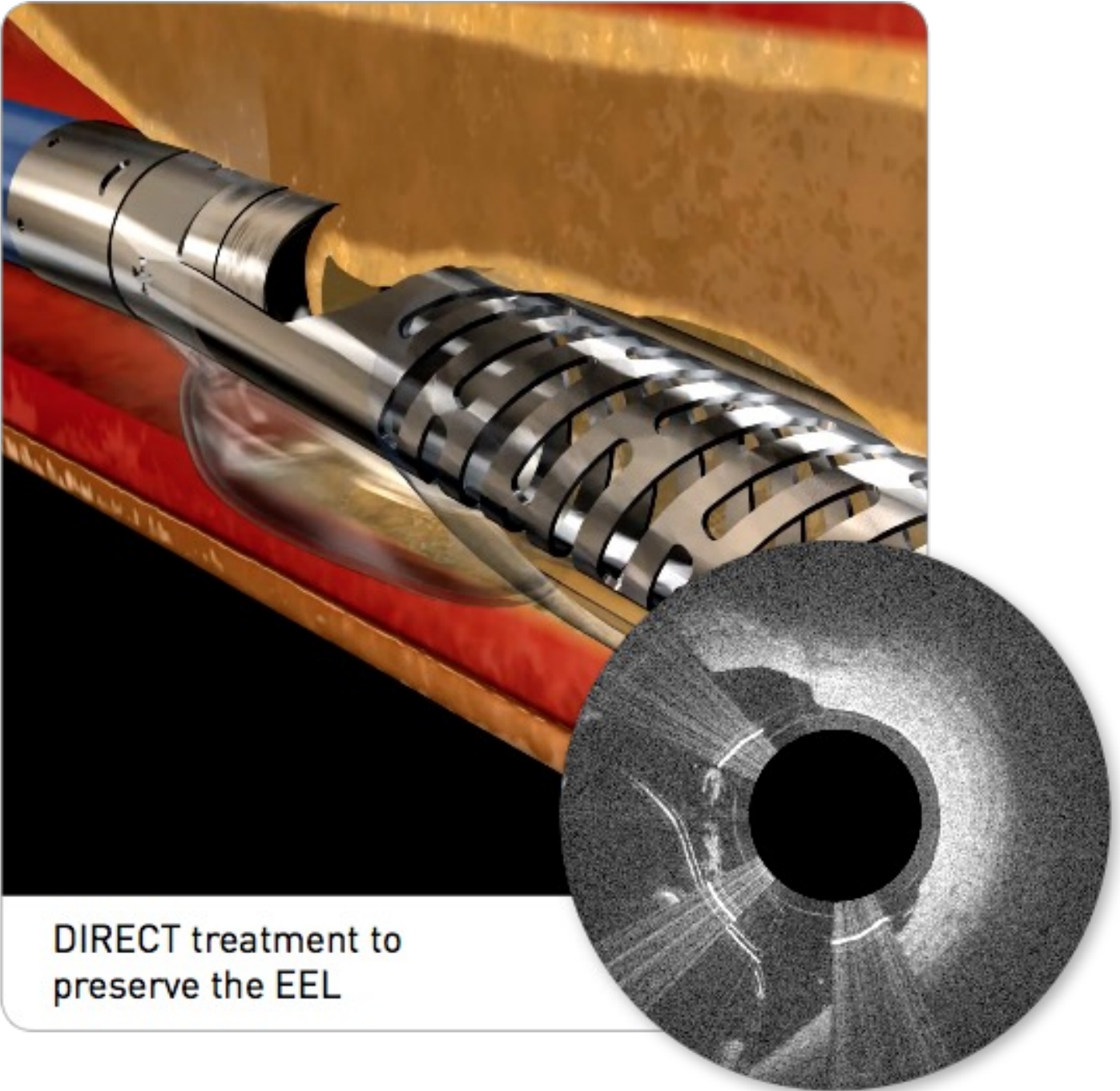
PANTHERIS

VISUALIZATION. PRECISION. SAFETY

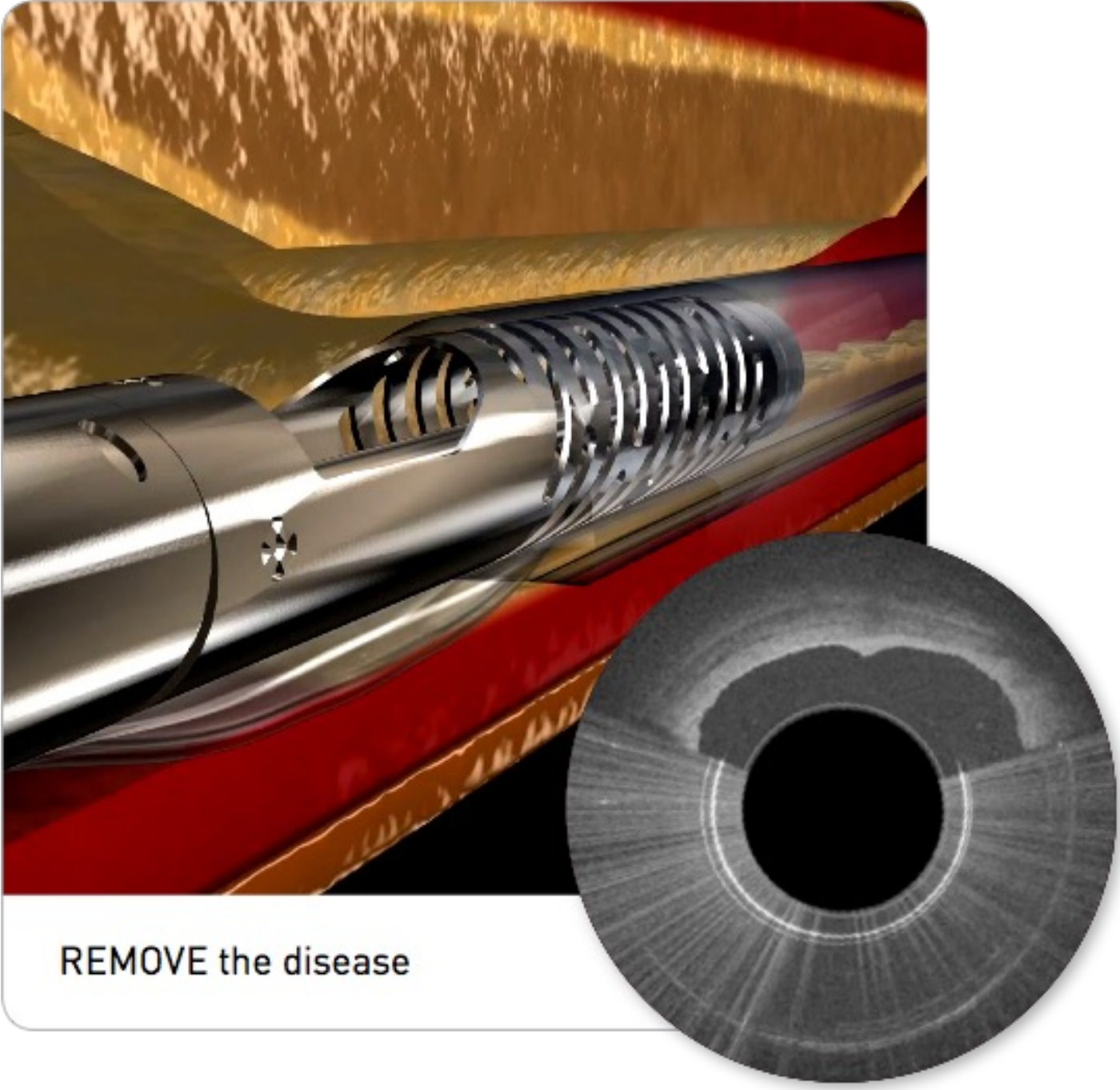
SEE



DIRECT



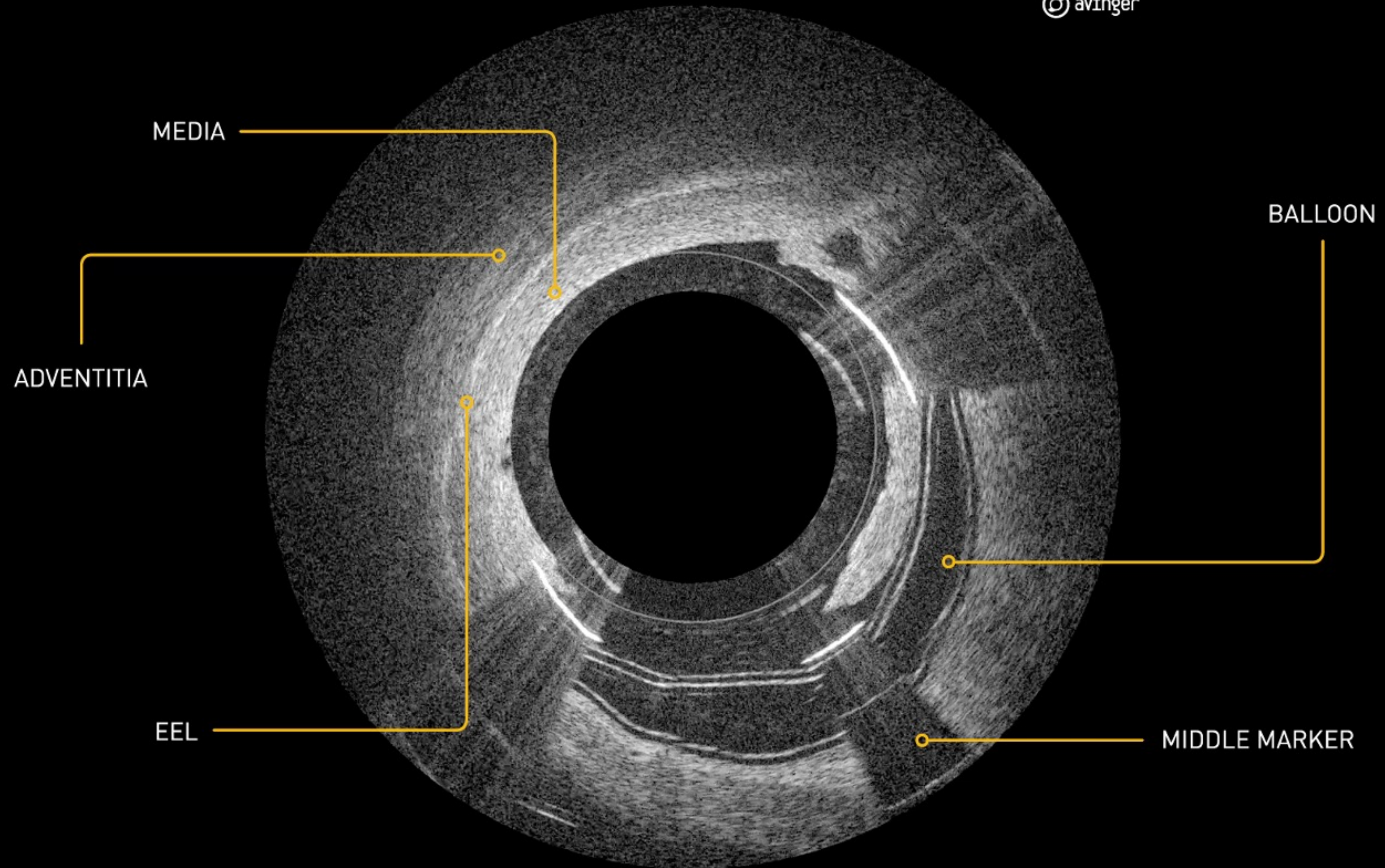
REMOVE



PANTHERIS

VISUALIZATION. PRECISION. SAFETY

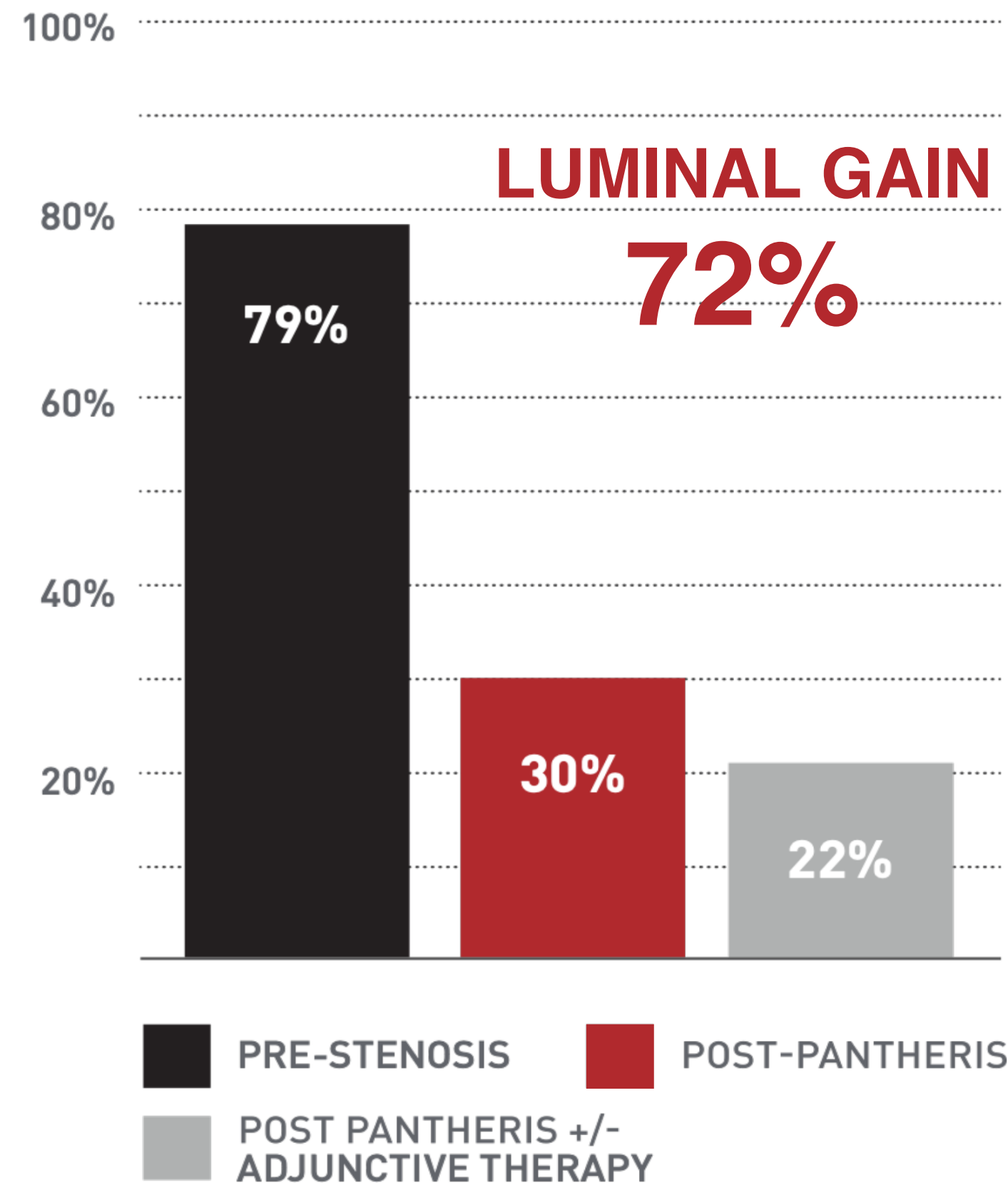
© avinger



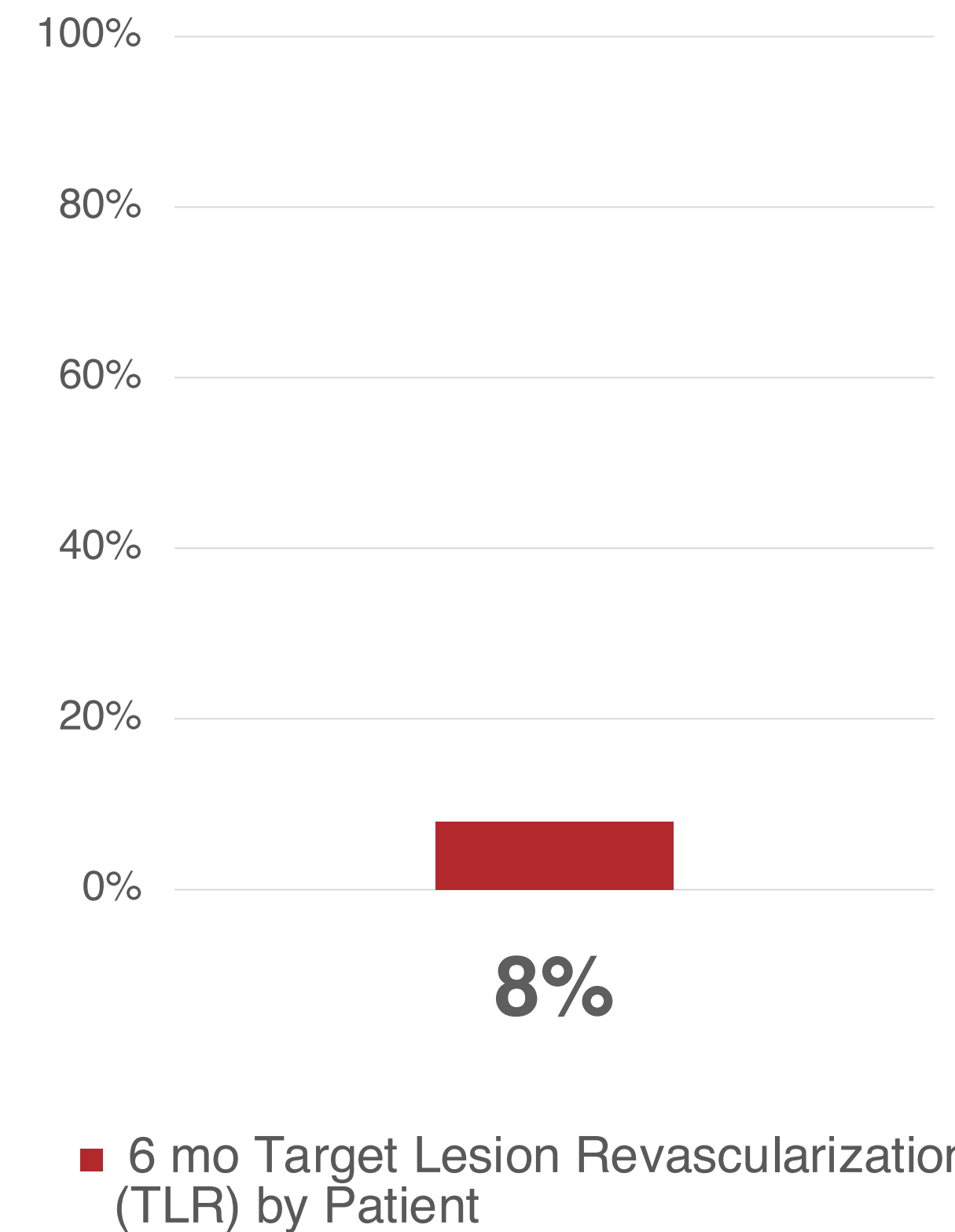
IMAGING IMPROVES OUTCOMES

VISION IDE CLINICAL STUDY¹

130 PATIENTS | 20 SITES | 164 LESIONS



TLR (Restenosis)

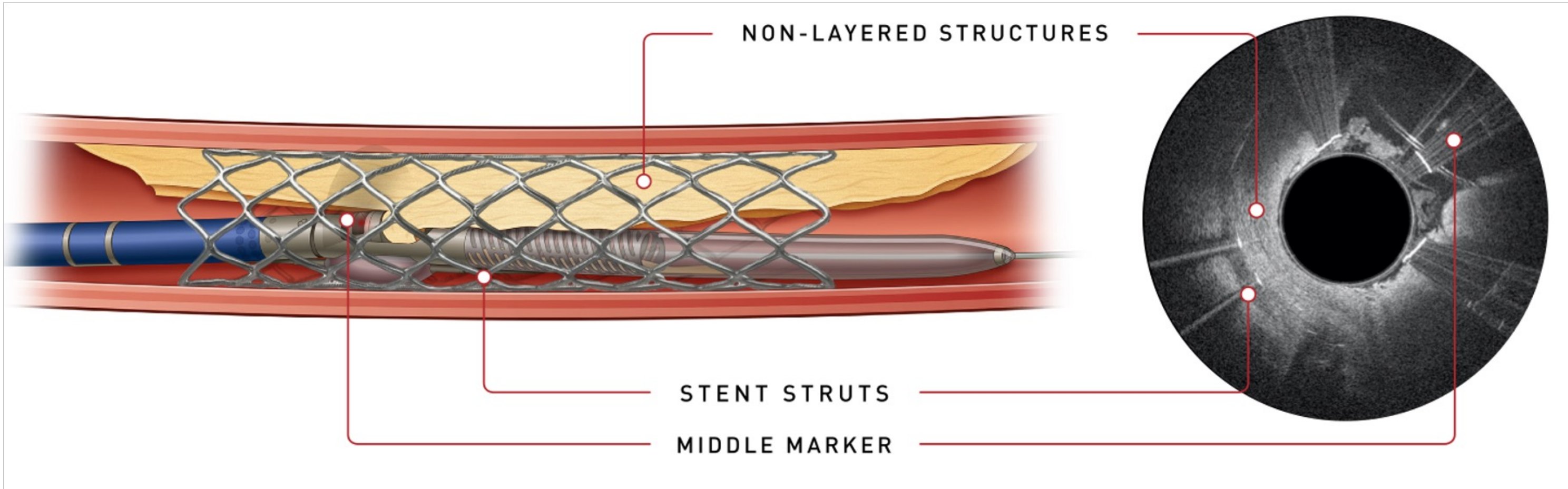


1. VISION Data on File at Avinger, Inc.

PANTHERIS IN-STENT RESTENOSIS (ISR) INDICATION

FDA 510(K) CLEARANCE NOVEMBER 2021

Pantheris presents a highly differentiated solution for the treatment of in-stent-restenosis, a large and underserved market in the U.S. and globally



Each year,
200,000
patients in U.S. treated with stents
in femoral and popliteal arteries

Within 3 years,
30-40%
of these stents develop
in-stent restenosis or occlusions

Each year,
250,000
ISR patients
are treated globally

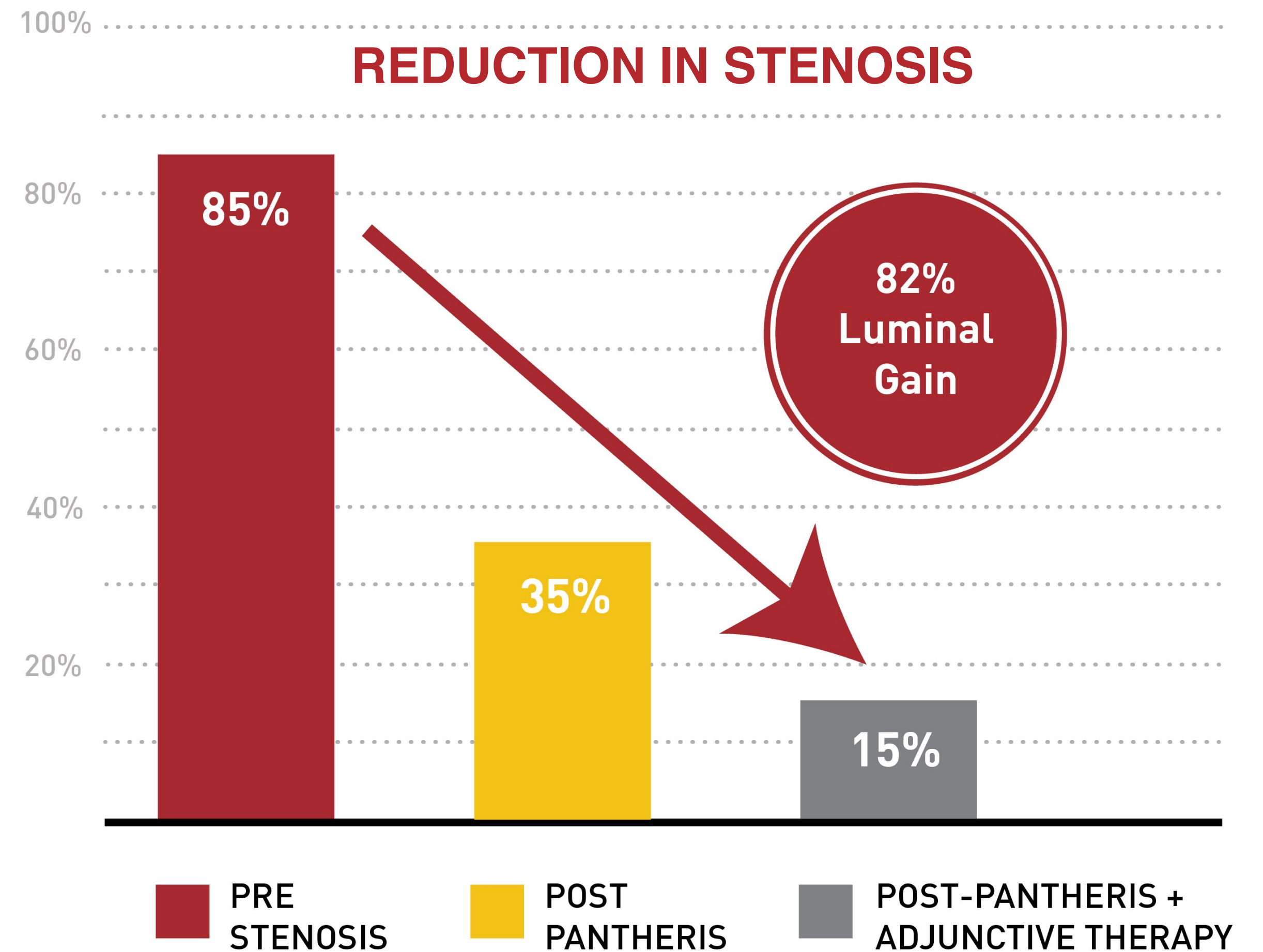
Source: Lichtenberg, et al. J Cardiovasc Surg. 2017



INSIGHT CLINICAL STUDY

UNSURPASSED SAFETY AND EFFICACY FOR THE TREATMENT OF ISR

- Multi-center prospective, single-arm trial conducted at 17 institutions with 97 subjects enrolled
- **Safety endpoint:** 97% of subjects free of device-related MAE at 30 days post-procedure
- **Efficacy endpoints:**
 - 93% freedom from TLR at 6-months post procedure and 89% at 1-year post
 - 39% improvement in ABI to 0.96 at 6-months post procedure
 - 71% Rutherford Class improvement at 6-months post procedure, with 77% of subjects Rutherford Class 0 or 1



Source: INSIGHT Data on File at Avinger, Inc.

PANTHERIS SV (SMALL VESSEL)

FDA 510(K) CLEARANCE APRIL 2019



COMMERCIAL LAUNCH SEPTEMBER 2019

Product shipped to >100 accounts

- Differentiated solution for complex disease in high need population; addressable market of ~\$180M¹
- Longer length and lower profile to enable treatment of smaller vessels, including those below-the-knee (BTK), estimated to account for 1/3 of atherectomy procedures
- **IMAGE-BTK post-market clinical study currently enrolling; highly positive interim data presented at NCVH and AMP 2022**

Pre-treatment



Post-treatment



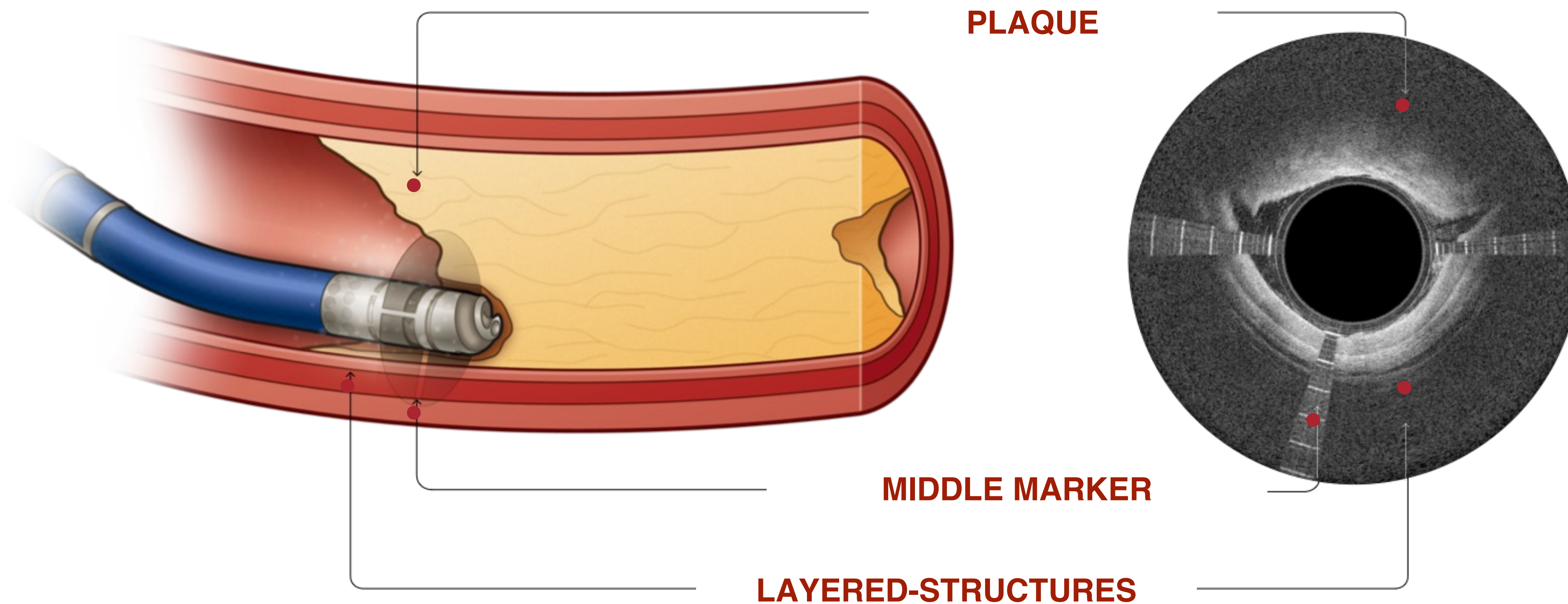
Pantheris SV Case Study

(1) Company estimate



OCELOT CTO CROSSING

FIRST OCT-GUIDED THERAPEUTIC SYSTEM



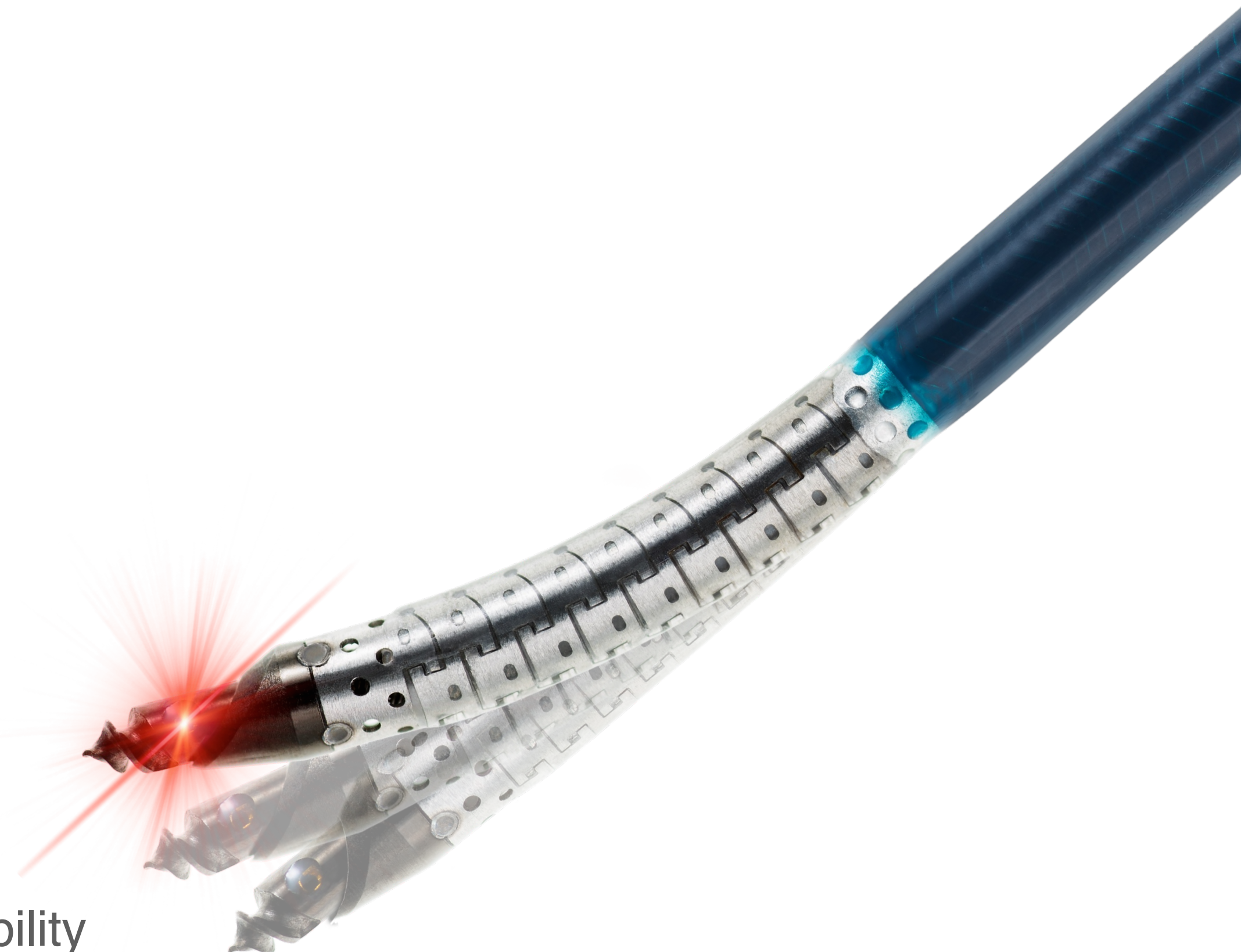
CTO = chronic total occlusion



TIGEREYE NEXT GENERATION CTO CROSSING

FDA 510(K) CLEARANCE AUGUST 2020

- Full commercial launch January 2021
- Successful limited launch Fourth Quarter 2020
- Enhanced imaging and CTO crossing capability
 - Up to 1000 rpm rotation speed generates Pantheris-like imaging
 - Proprietary tip design and faster rotation improves crossing capability
- Variable angle tip deflection delivers precise maneuverability
- Low profile design allows for 5F sheath compatibility



STRATEGIC GROWTH DRIVERS



1

Drive Utilization

Drive utilization at current sites and open new sites in current markets

3

Expand Markets

Expand sales team, launch new sites in underserved areas

2

Launch New Devices

Devices in development to expand available market and revenue per site

4

Advance Clinical Data

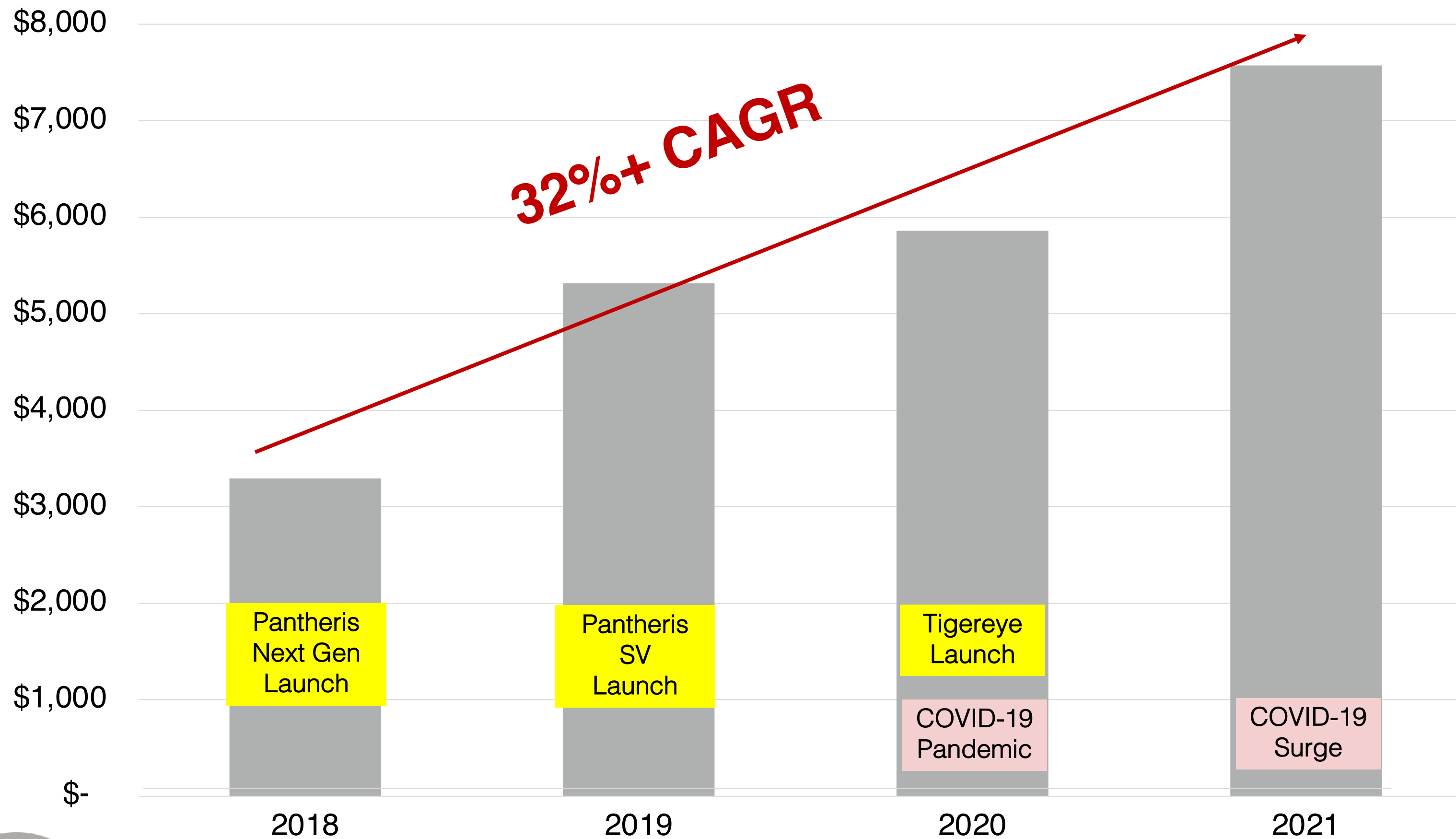
Produce compelling clinical outcomes data to support utilization and value



NEW AND IMPROVED PRODUCTS DRIVE REVENUE GROWTH

3 NEW PRODUCTS
IN PAST 3 YEARS

Total Pantheris, Pantheris SV, Tigereye Revenue (\$000)



 **PANTHERIS** NEXT GEN



 **PANTHERIS** | SV



 **TIGEREYE**



LIGHTBOX 3 IMAGING CONSOLE

FDA 510(K) CLEARANCE JANUARY 2022

Radically reduced footprint and lower cost

- **Full commercial launch April 2022**
- Weighs <20 pounds and fits in carry-on suitcase
- Cost reduction of up to 50%
- Next generation solid state laser for enhanced OCT imaging and variable high-speed catheter rotation capability
- Portable with multiple lab installation options
- Reimagined software system and user interface – emphasis on speed and simplicity



PERIPHERAL LINE EXTENSIONS

EXPAND PORTFOLIO AND STREAMLINE PROCEDURE

CTO Crossing: Tigereye ST

- Spinning outer tip for tough caps and calcium
- Advanced shaft design for pushability and torque response
- New design, lower profile tip for trackability
- Three-marker system for consistent image-interpretation across platform



510(k) filed June 2022



Atherectomy: Pantheris LV

- Proprietary design for optimal plaque apposition without balloon
- Ability to operate at higher rotational speeds in challenging plaque
- Rotational control for efficient guidewire management
- Modified plaque management system for tissue packing and removal

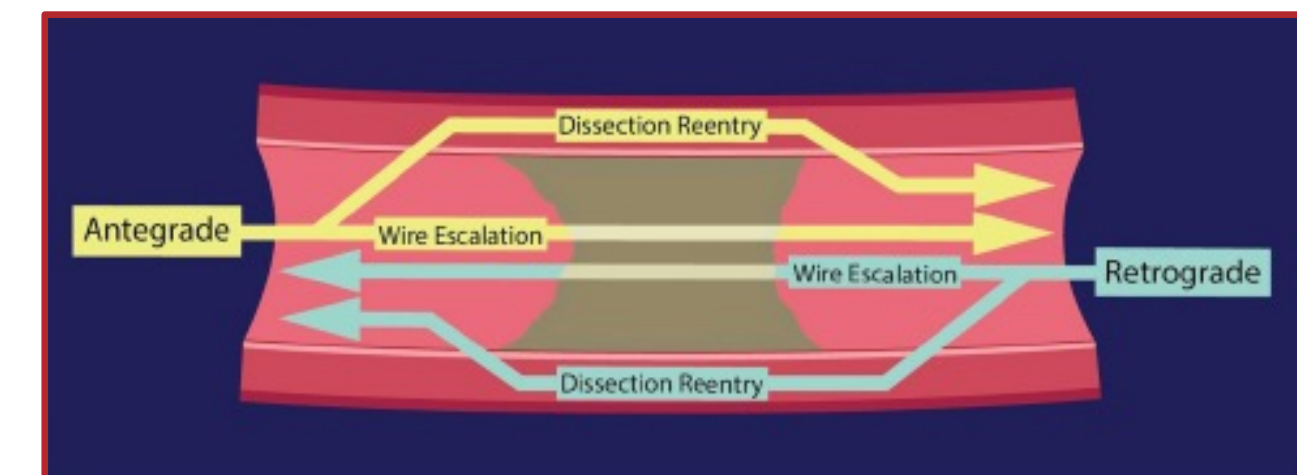
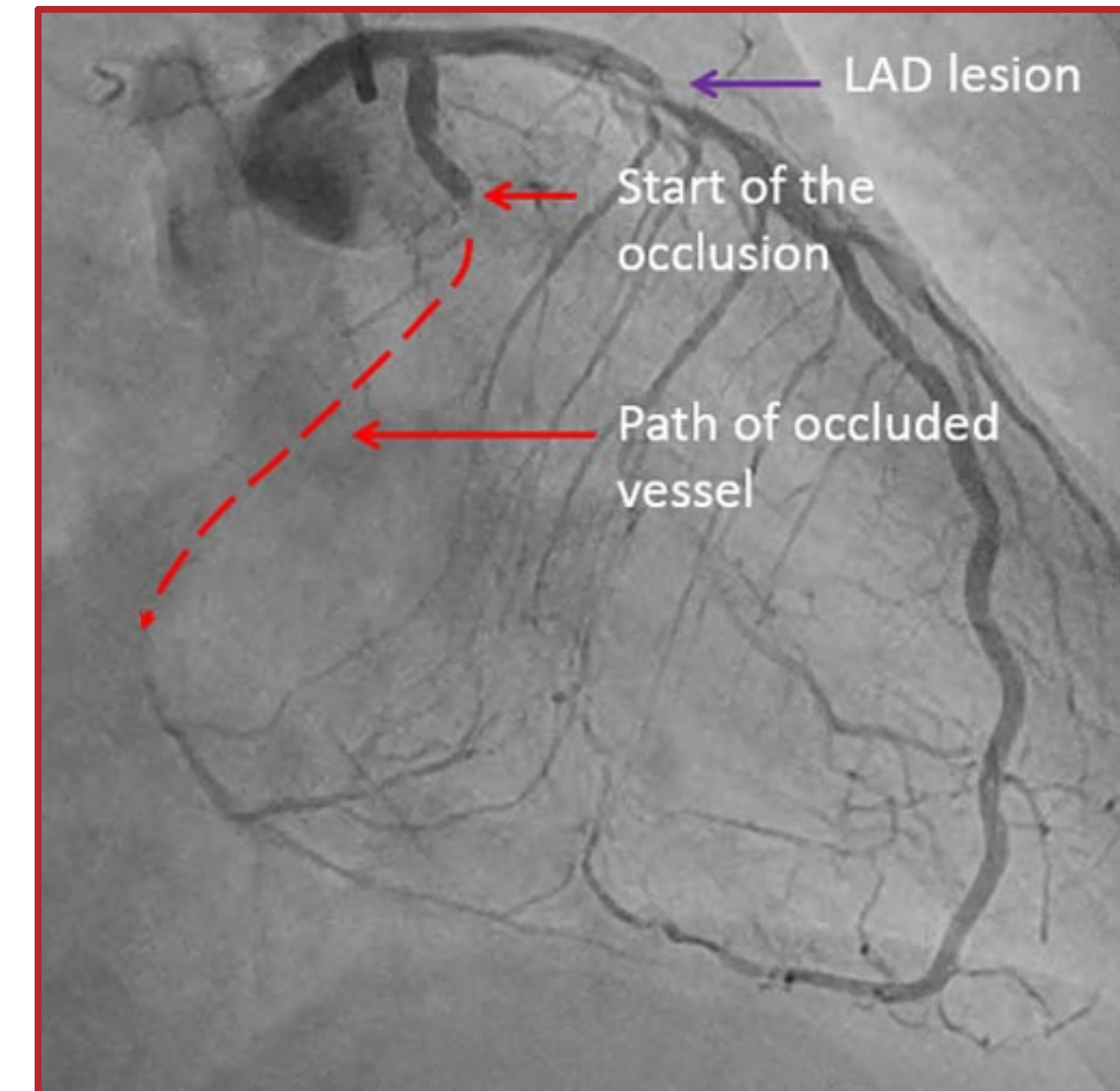
Anticipated 510(k) filing Fourth Quarter 2022

Currently in development at Avinger. Not available for sale.

CORONARY CTO PROGRAM

CURRENT MARKET LANDSCAPE

- **Suboptimal and variable safety and efficacy rates:** 50-75% total success rate; significant complication rate; requires specialized and demanding technique
- **High radiation and contrast doses and lengthy procedures:** Multi-view angiogram and assessment, complexity, multiple access points, and device escalation
- **Substantial market size and growing:** 50K CTO PCI in US and another 250K+ CABG procedures with up to 30% related to treatment of coronary CTOs (Estimated TAM: \$400M+)
- **Limited competitive set and existing reimbursement:** CTO-specific codes offer more reimbursement than other PCI; market primarily specialty wires & catheters



**Antegrade wire escalation as primary approach
Retrograde dissection / re-entry as back-up**

IMAGE-GUIDED CORONARY CTO CROSSING

OPPORTUNITY TO REDEFINE A MARKET

- Opportunity for improved safety and efficacy in an expanded patient population: **Onboard image-guidance + precise control/steerability with less radiation and contrast burden**
- Leverages OCT technology platform and CTO crossing core competency: lower profile and more flexible device, designed specifically for coronary usage
- Potential advantages in reimbursement: Existing reimbursement codes for CTO-PCI *plus* reimbursement for coronary OCT diagnostic enhance economic adoption drivers
- Cost-efficient: reduces the need for multiple specialty wires, support catheters, recanalization devices, and re-entry devices
- Attractive market dynamics: Small number of non-imaging competitive devices with high cost and clinical limitations, and emerging high-growth hospital market
- **Development efforts underway with goal of filing an Investigational Device Exemption (IDE) with FDA in 2023**



Currently in development at Avinger. Not available for sale.

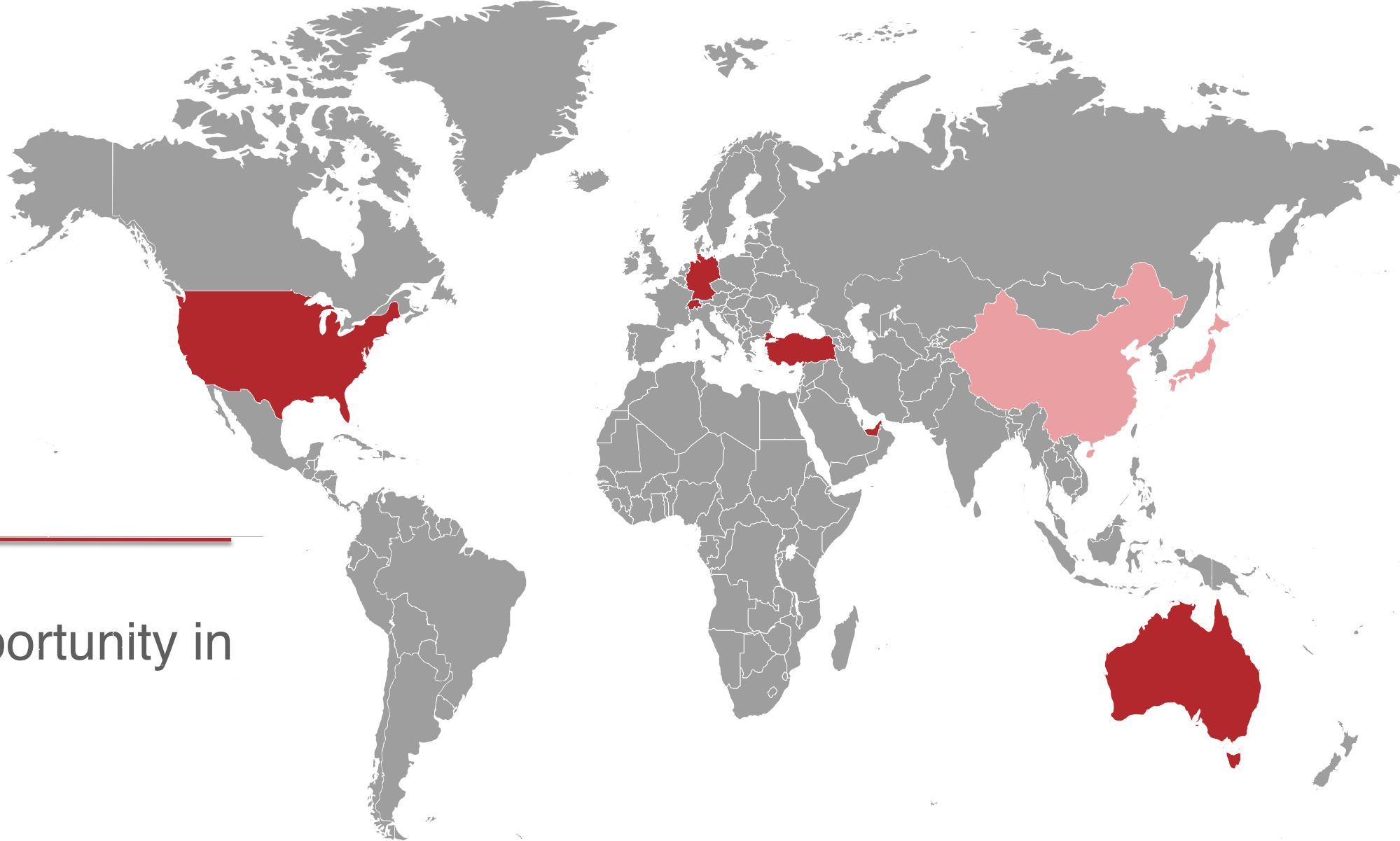
NEW PRODUCT PIPELINE

AVINGER

PRODUCT	ESTIMATED MARKET OPPORTUNITY ¹	ANTICIPATED U.S. 510(k) FILING	ANTICIPATED U.S. PRODUCT AVAILABILITY	COMMENTARY
Lightbox 3 Imaging Console	\$100M	August 2021	Q1 2022	Miniaturized solid-state console with full integration
Tigereye ST Peripheral CTO	\$90M	June 2022	2H 2022	Advanced image-guided device for crossing challenging CTOs
Pantheris LV Peripheral Atherectomy	\$250M	Q4 2022	1H 2023	Advanced image-guided atherectomy device with streamlined workflow
Coronary CTO	\$400M	IDE filing 2023	TBD	First and only image-guided device for crossing CTOs in the coronary arteries (IDE clinical study required)

(1) Company estimate

U.S. AND INTERNATIONAL SALES REGIONS



U.S.

25 Sales Professionals

- VP/Regional Directors: 3
- Territory Sales Managers: 9
- Clinical Specialists: 13

EUROPE MIDDLE EAST

1 International VP

Direct Sales in Germany
Distributors in UAE, Israel
and Turkey

ASIA PACIFIC

Large market opportunity in
China and Japan

Regulatory Status

Approved

Approved

Approved (Australia &
Hong Kong)
Regulatory approval
required (China & Japan)

U.S. National Agreements



HEALTHTRUST



As of December 31, 2021



KEY UPCOMING MILESTONES

COMMERCIAL EXPANSION AND ROBUST PIPELINE

1H 2022

2H 2022

510(k) clearance for Lightbox 3 imaging console and U.S. commercial launch

Continuation of enrollment and interim data release for Pantheris SV IMAGE-BTK study

510(k) filing for Tigereye ST peripheral CTO line extension (mid-year)

510(k) clearance for Tigereye ST and U.S. commercial launch

Finalize Pantheris LV design and advance to verification & validation testing

510(k) filing for Pantheris LV peripheral atherectomy line extension

Advance coronary image-guided CTO crossing design and development

Coronary CTO design iteration and physician engagement, preliminary V&V testing



CAPITALIZATION TABLE AND SELECTED FINANCIALS

AVINGER

SECURITIES AT JUNE 30, 2022

COMMON EQUIVALENTS

Common Stock

6,081,333

Series A Preferred (56,366 outstanding / \$400 conversion)

140,915

Series B Preferred (85 outstanding / \$5 conversion)

17,000

Warrants (~\$47 avg. exercise price)

1,006,285

Employee Options and Restricted Stock Units

8,959

Outstanding Shares Assuming Full Conversion incl. Series A

7,254,492

SELECTED FINANCIALS AT JUNE 30, 2022

Cash Balance⁽¹⁾

\$16.0 million

Debt Balance

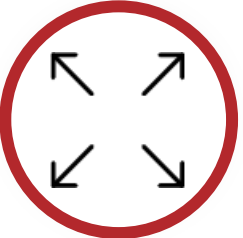
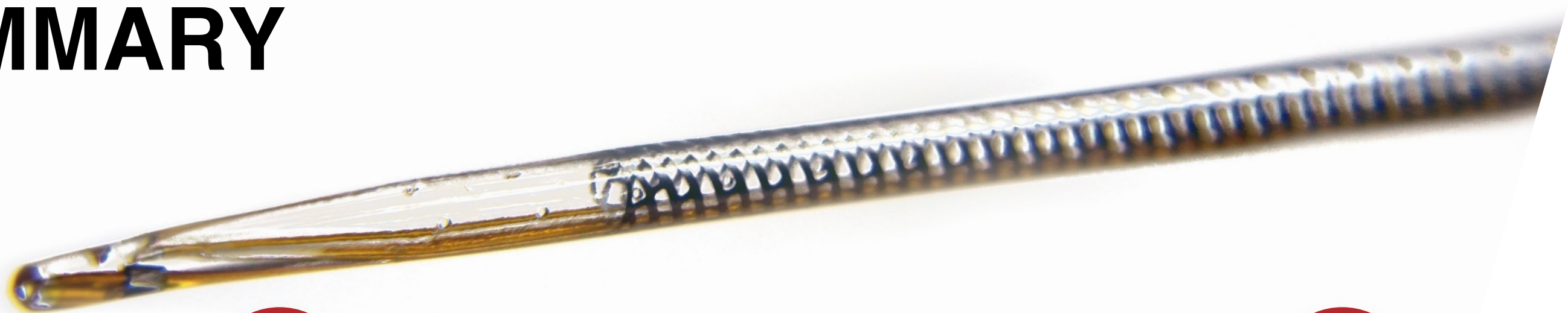
\$13.2 million

(1) Cash balance does not include capital raise of \$5.0 million in gross proceeds in August 2022

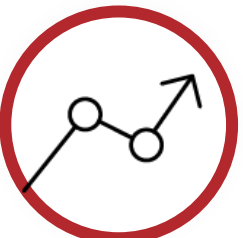


OPPORTUNITY SUMMARY

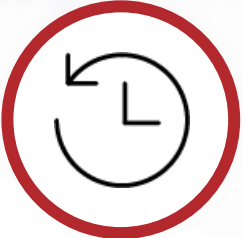
AVINGER



Proprietary solutions for large and growing PAD market, with planned expansion to Coronary Artery Disease (CAD) market



Recent new product launches driving positive sales results and growing recurring revenue base



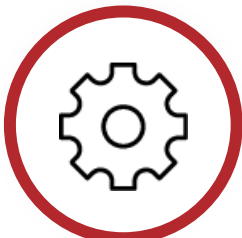
Lumivascular platform is the only technology that combines real-time intravascular imaging with highly effective therapy for the treatment of vascular disease



Robust product pipeline for peripheral and coronary applications to position the company for future growth



Clinical study programs generating compelling clinical data to support expanded labeling and incremental reimbursement initiatives



Efficient, lean operating structure focused on driving recurring revenue and scale



Appendix



MANAGEMENT TEAM

AVINGER

Jeff Soinski – Chief Executive Officer

Jeff Soinski has served as our President, Chief Executive Officer and a member of our Board of Directors since December 2014. From its formation in September 2009 until the acquisition of its Unisyn business by GE Healthcare in May 2013, Mr. Soinski served as Chief Executive Officer of Medical Imaging Holdings and its primary operating company Unisyn Medical Technologies, a national provider of technology-enabled products and services to the medical imaging industry. Mr. Soinski served periodically as a Special Venture Partner from July 2008 to June 2013 and as a Special Investment Partner since October 2016 for Galen Partners, a leading healthcare-focused private equity firm. From 2001 until its acquisition by C.R. Bard in 2008, Mr. Soinski was President and CEO of Specialized Health Products International, a publicly-traded manufacturer and marketer of proprietary safety medical products. Earlier in his career, Mr. Soinski was President and CEO of ViroTex Corporation, a venture-backed pharmaceutical drug delivery company he sold to Atrix Laboratories in 1998.

Mr. Soinski served on the board of directors of Merriman Holdings, parent of Merriman Capital, a publicly-traded investment banking and brokerage firm, from 2008 until March 2016. He holds a B.A. degree from Dartmouth College.

Himanshu Patel – Chief Technology Officer

Himanshu Patel has served as Chief Technology Officer of Avinger since co-founding the Company in 2007. Mr. Patel brings over 25 years of design experience developing medical devices, primarily for cardiovascular and peripheral artery disease treatment. He has extensive experience leading R&D and manufacturing operations across several companies and has served as a named inventor in more than 25 medical device patents. Mr. Patel spearheaded engineering efforts of the current platform of image-guided interventional devices at Avinger and has played a central role in the development of products that have generated over \$1 billion in shareholder value over the course of his career. Prior to Avinger, Mr. Patel led R&D activities as the Director of Advanced Technologies at FoxHollow, where he led the engineering efforts of a \$180 million revenue product. His other experience includes medical device design and development at EndoTex Interventional Systems and improving the manufacturing processes of medical devices at General Surgical Innovations, amongst others.

Mr. Patel holds a B.S. in Mechanical Engineering from M.S. University of Baroda, India, and an M.S. in Mechanical Engineering from the University of Florida.

Jaafer Golzar, MD, FACC, FSCAI – Chief Medical Officer

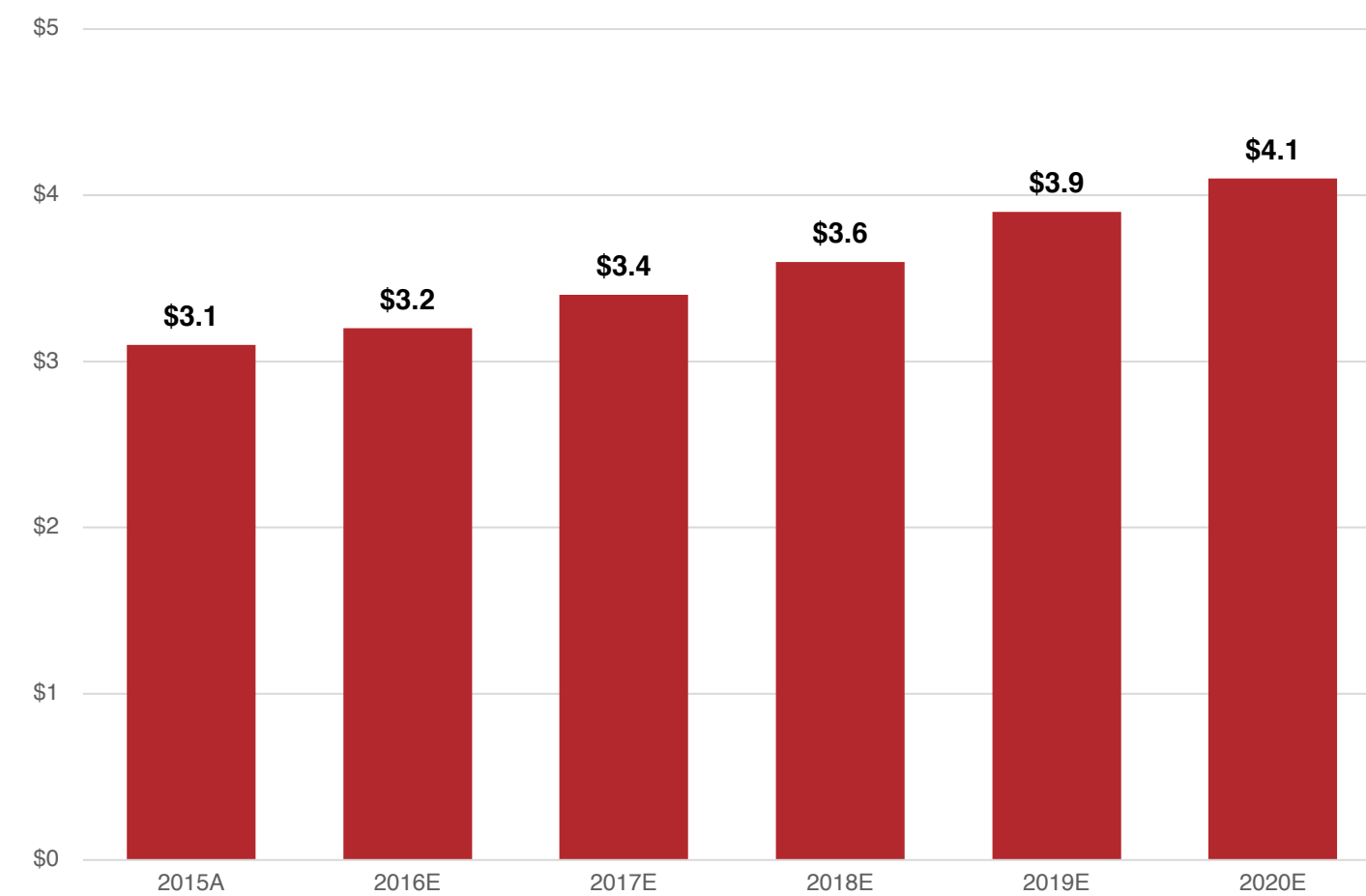
Jaafer Golzar, MD, joined Avinger in July 2018 and serves as our Chief Medical Officer. Dr. Golzar is a practicing interventional cardiologist with Advocate Medical Group and a key opinion leader in the treatment of peripheral artery disease. He is the Director of Limb Salvage and Endovascular Intervention at Advocate Trinity Hospital in Chicago. Dr. Golzar is a leading educator on interventional techniques and technologies and is a faculty member and frequent speaker at leading clinical conferences. Prior to joining Avinger, Dr. Golzar was Medical Director – Interventional Vascular for BTG International. He has participated in multiple clinical research trials, including studies of PAD treatment with atherectomy, drug-eluting balloons and stents and has authored numerous publications in peer-reviewed journals. As a recognized leader in the endovascular community, Dr. Golzar has received multiple accolades including the prestigious Pioneers in Performance - North America Award in 2014. He is a Fellow of the American College of Cardiology and of the Society for Cardiovascular Angiography and Interventions.

Dr. Golzar has a B.S. from the University of Arkansas at Little Rock and an M.D. degree from the University of Arkansas College of Medicine.

ATTRACTIVE AND GROWING MARKET

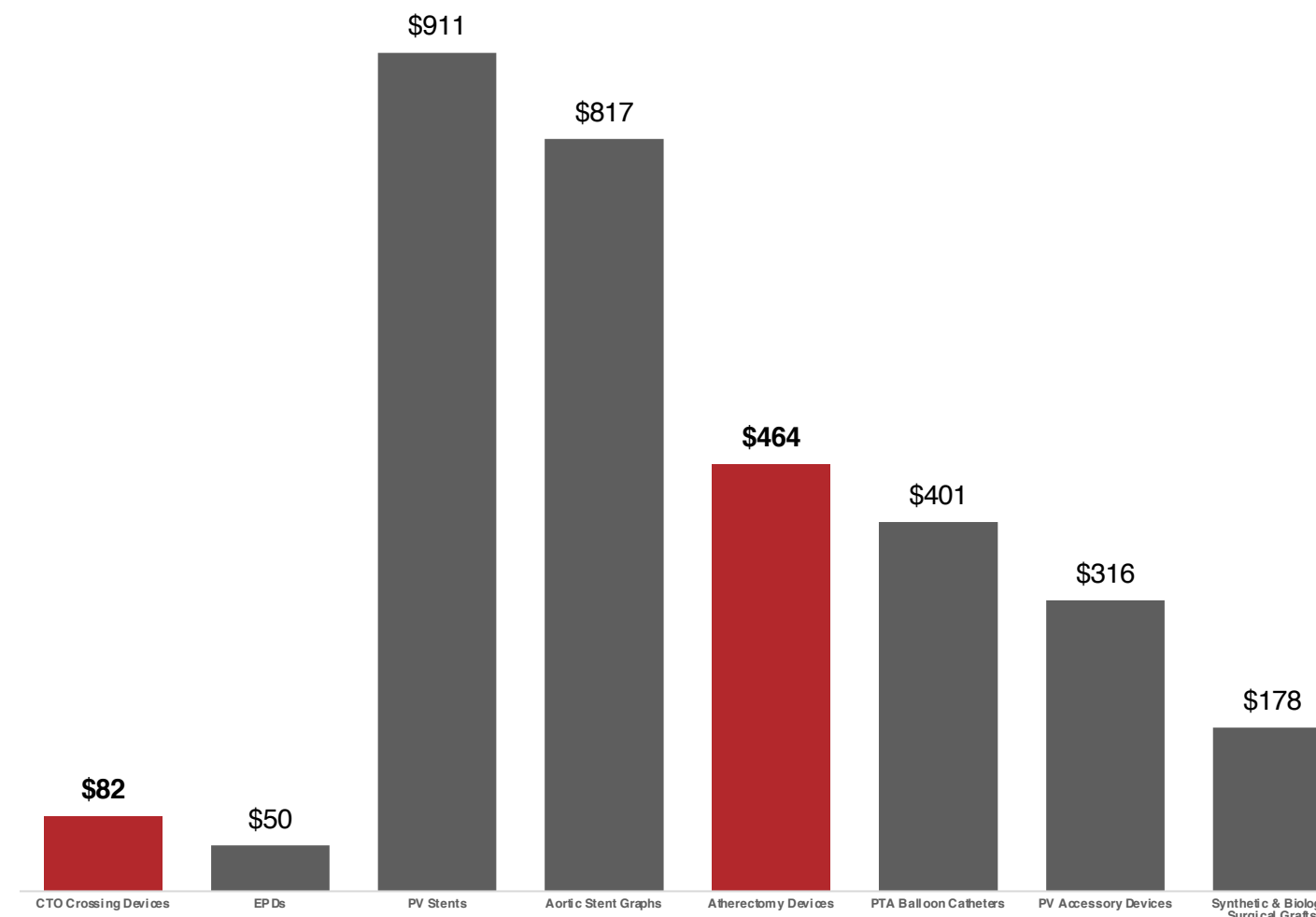
AVINGER

U.S. PV Device Market
(\$ IN BILLIONS)



U.S. PV Device Market is expected to be \$3.6 billion in 2018 and expected to grow at a rate of 2.3% until 2023

2016 U.S. Market by Device Type
(\$ IN MILLIONS)



Atherectomy procedures and CTO procedures are expected to grow at 11.4% and 7.7% through 2023

2016 U.S. Market Size for Endovascular Treatment of PAD

TREATMENT	PROCEDURES	MARKET SIZE
Amputations ⁽¹⁾	200,000	-
Bypass ⁽²⁾	160,000	-
Surgical Procedures	360,000	-
Stents ⁽³⁾	314,000	\$523M
Angioplasty ⁽³⁾	560,000	\$240M
Atherectomy	149,000	\$464M
CTOs	155,000	\$82M
Endovascular Procedures⁽⁴⁾	620,000	\$1,309M

Total atherectomy and CTO market size in 2016 was \$546 million

Source: Unless otherwise noted, data is from Millennium Research Group, December 2014

1) The Sage Group, 2014

2) Journal of Vascular Surgery, 2009

3) For PAD, includes only Iliac, Femoropopliteal and Infrapopliteal indications

4) Total endovascular procedures are less than sum of the individual categories due to use of same technologies in same procedure

PHYSICIAN RADIATION EFFECTS

INTERVENTIONAL PHYSICIANS
HAVE THE HIGHEST RADIATION
EXPOSURE ^{6,7}

BRAIN¹

Increasing prevalence of left sided brain tumors (85%)
in interventional physicians (n=31)

EYES²

> 3.2X risk of accelerated lens opacification
(cataracts) among interventional practitioners

SKIN³

Soft tissue cancers, hair loss, and skin mottling
noticeable in non-dominant hand of MDs

BLOOD⁴

Exacerbation of reactive oxygen species and blood-
borne cancers

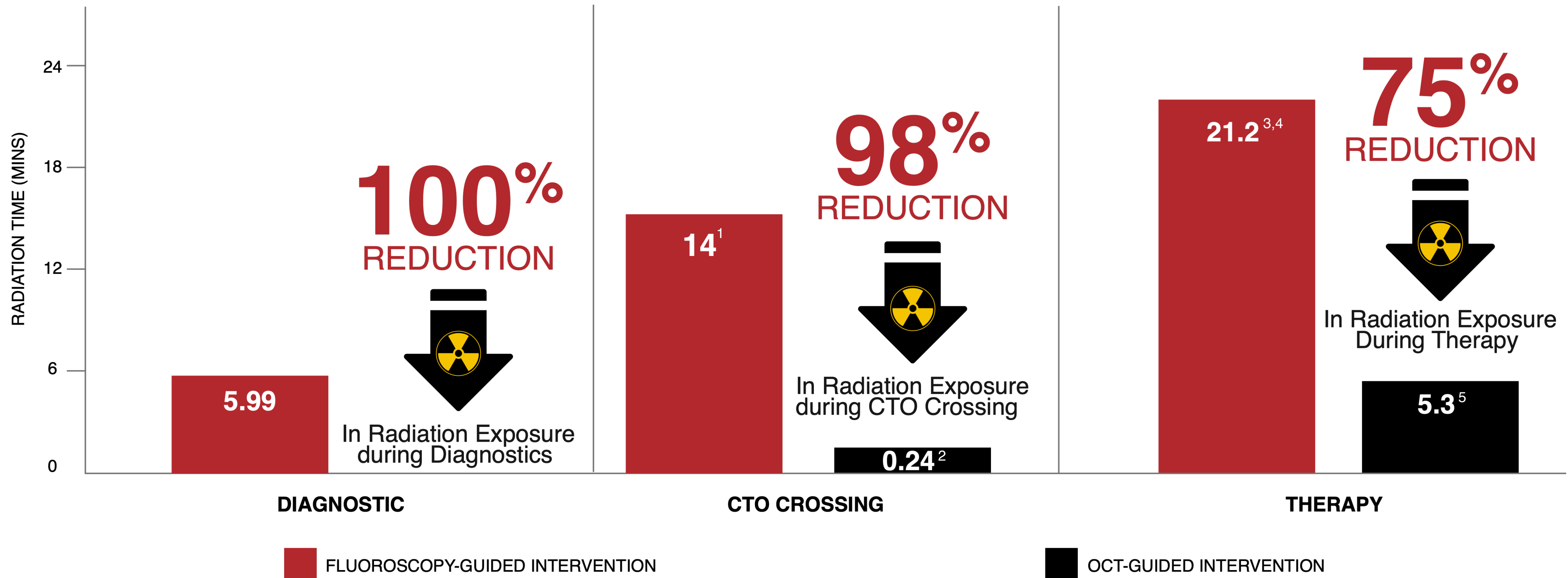
LOWER EXTREMITY⁵

Revascularization procedures pose the greatest
radiation risk in the hospital

1. Roguin et al. AJC. 2013 | 2. Vano et al. Radiation Research. 2010 | 3. Shope TB. Radiographics. 1996 | 4. Ruso G. et al. European Heart Journal. 2001 | 5. Segal E. et al. JVS. 2013 | 6. International Atomic Energy Agency (IAEA) | 7. Zakeri, et al. in interventional cardiologist. 2010

OCT: AN ALTERNATIVE TO RADIATION

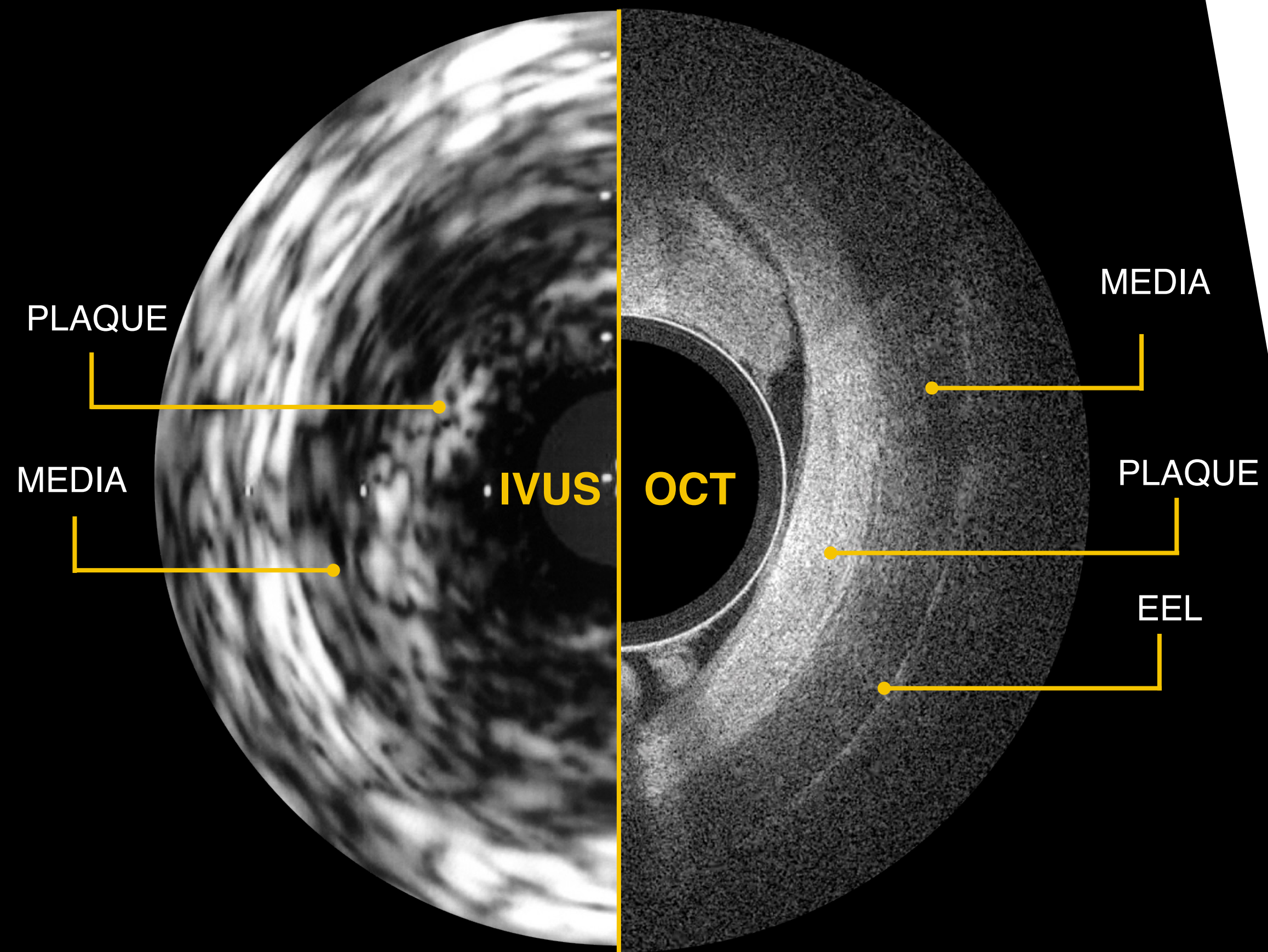
REDUCING EXPOSURE DURING DIAGNOSTIC, CROSSING & THERAPY



1. Staniloae, et al. Journal of Invasive Cardiology. 2011 | 2. Davis T. Vascular Disease Management. 2015. | 3. Laird et al. Catheterization and Cardiovascular Interventions. 2012 | 4. Roberts et al. Catheterization and Cardiovascular Interventions. 2014 | 5. Brodmann. Lumivascular Case Series. LINC 2016

IVUS & OCT

AN IMAGING COMPARISON



PLAQUE & LAYERS

OCT



For Diagnosis & Therapy

10 μ m (10 times higher resolution than IVUS)

Better visualization of non-layered structures ($p < 0.001$)¹

Better visualization of calcification ($p = 0.005$)¹

Better visualization of stent structure ($p = 0.007$)¹

1. Pavillard E, L Sewell. (SCAN) Medical Imaging 2020

REAL-TIME IMAGE-GUIDED CATHETERS

ATHERECTOMY & CTO CROSSING

PANTHERIS



PANTHERIS 7F | 110CM




PANTHERIS | XL 7F | 110CM



PANTHERIS | SV 6F | 140CM


TIGEREYE

NEW

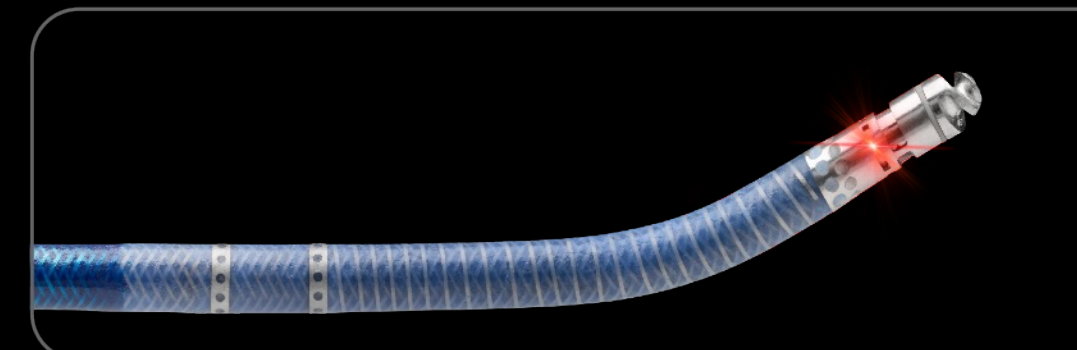


TIGEREYE 5F | 140CM
SPIRAL FLUTES

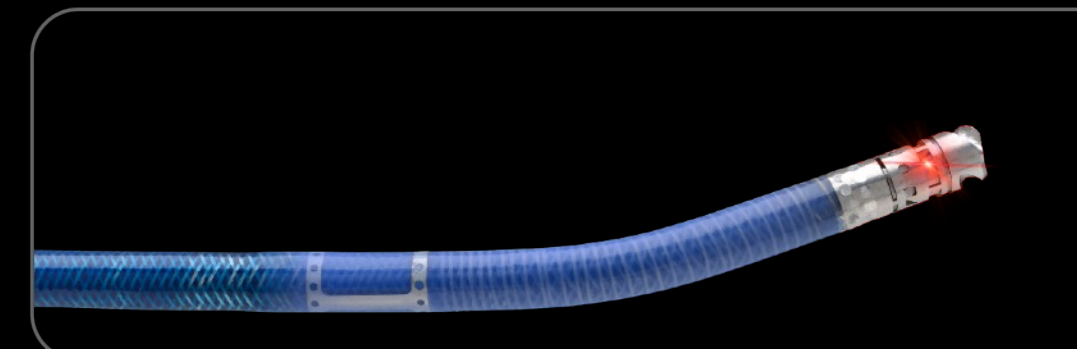
OCELOT



OCELOT 6F | 110CM
SPIRAL FLUTES



OCELOT | PIXL 5F | 135CM
SPIRAL FLUTES



OCELOT | MVRX 6F | 110CM
SPIRAL WEDGES



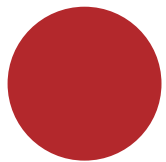
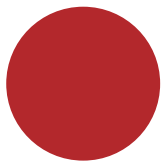
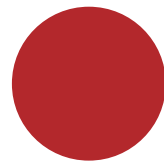
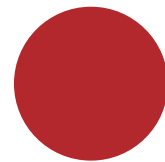


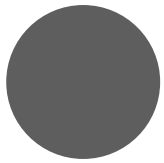
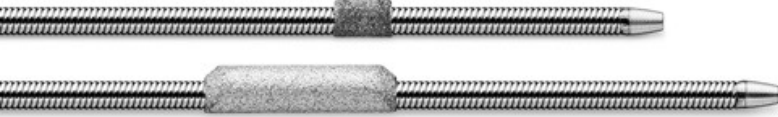













The Pantheris System is intended to remove plaque (atherectomy) from partially occluded vessels in the peripheral vasculature with a reference diameter of 3.0 mm to 7.0 mm, using OCT-assisted orientation and imaging. The system is an adjunct to fluoroscopy by providing images of vessel lumen, wall structures and vessel morphologies. The Pantheris System is NOT intended for use in the iliac, coronary, cerebral, renal or carotid vasculature. The Ocelot System is intended to facilitate the intraluminal placement of conventional guidewires beyond stenotic lesions (including sub and chronic total occlusions) in the peripheral vasculature prior to further percutaneous intervention using OCT-assisted orientation and imaging. The system is an adjunct to fluoroscopy by providing images of vessel lumen and wall structures. The Ocelot System is contraindicated for use in the iliac, coronary, cerebral, renal or carotid vasculature. Lightbox is intended for use in peripheral vascular procedures in conjunction with a compatible Avinger product.



COMPETITIVE POSITIONING

ATHERECTOMY MARKET



	COMPANY	PRODUCT	MARKET SHARE	APPROACH	LUMINAL GAIN	AVOIDS ADVENTITIA DISRUPTION	REMOVAL OF PLAQUE	RADIATION & CONTRAST SPARING	IMAGING & VESSEL MEASUREMENT
	Avinger	Pantheris	<5%	Directional Atherectomy					
	Covidien / Medtronic	SilverHawk	29%	Directional Atherectomy					
	CSI	Diamondback 360	35%	Orbital Atherectomy					
	Philips (Spectranetics)	Turbo Elite	19%	Laser Ablation					
	Boston Scientific	Jetstream / Rotablator	11% ⁽¹⁾	Rotational Atherectomy					
	Philips (Volcano)	Phoenix	<5%	Rotational Atherectomy					

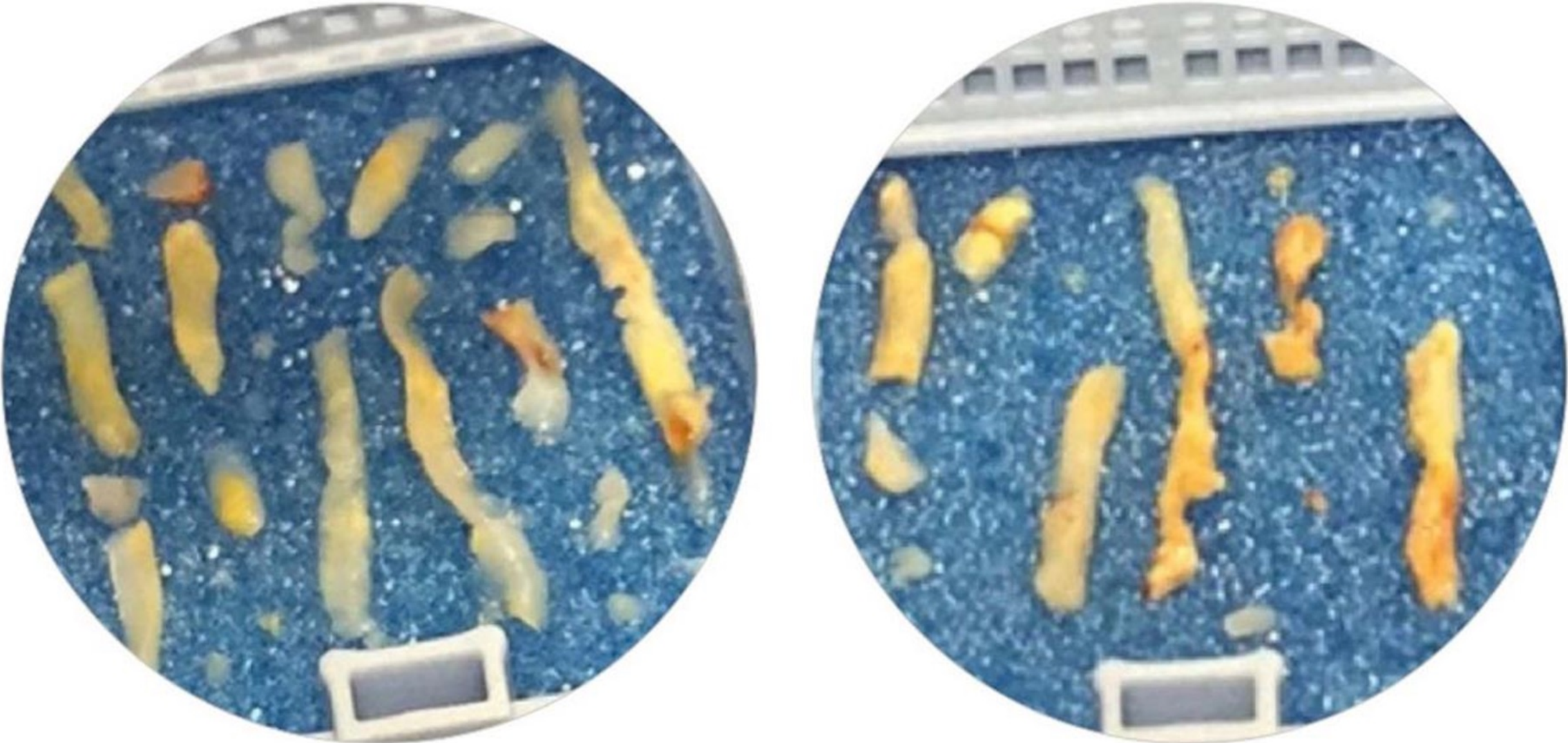
Source: Estimated Market Share 12 mos. ended Sept 2017 (based on DRG and other sources)(1) Boston Scientific market share not differentiated between Jetstream and Rotablator



PANTHERIS

CASE STUDY

Plaque removed from artery during Pantheris procedure



Pre Pantheris



Post Pantheris



CLINICAL DATA PROGRAMS



SCAN Clinical Study – OCT vs. IVUS in Peripheral Arteries

- Post-market study comparing Pantheris OCT imaging to IVUS as a diagnostic imaging tool – supports incremental reimbursement initiative
- Publication in February 2020

INSIGHT IDE Clinical Trial – In-Stent Restenosis (ISR)

- IDE trial to support 510(k) submission for ISR label expansion; 16 US/OUS Sites.
- Clinical data presented at VIVA, NCVH and LINC; publication in development
- **510(k) clearance for Pantheris ISR indication in November 2021**

IMAGE-BTK Clinical Study – Pantheris SV

- Post-market study evaluating safety and efficacy in real-world clinical setting
- Multi-center study with evaluation at 30 days, 6 months and 1-year post-procedure
- 2 U.S. clinical sites open for enrollment; 2 German sites added in Q2 2022
- **Completion of enrollment and 30-day data anticipated in early 2023**

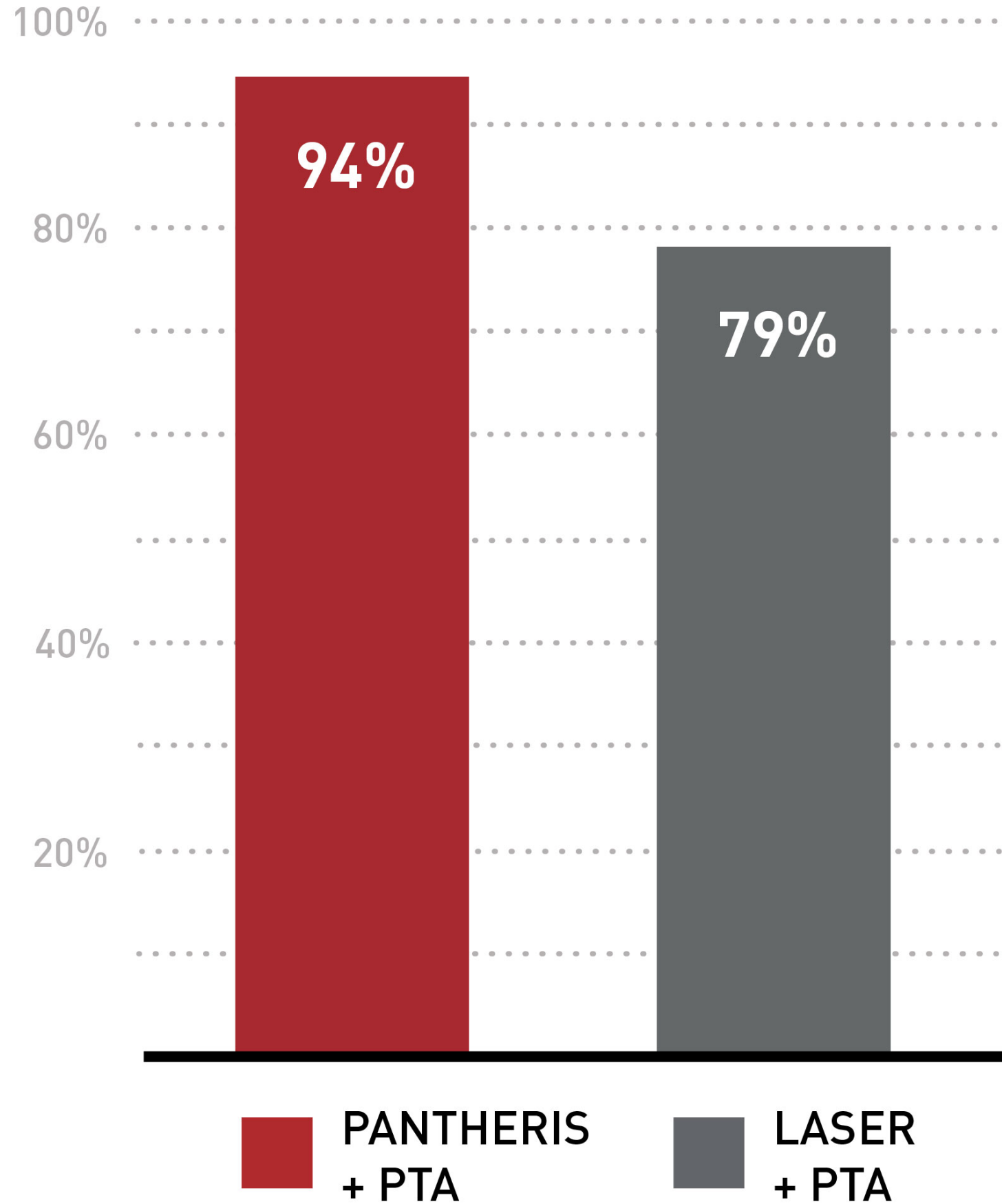


INSIGHT CLINICAL STUDY

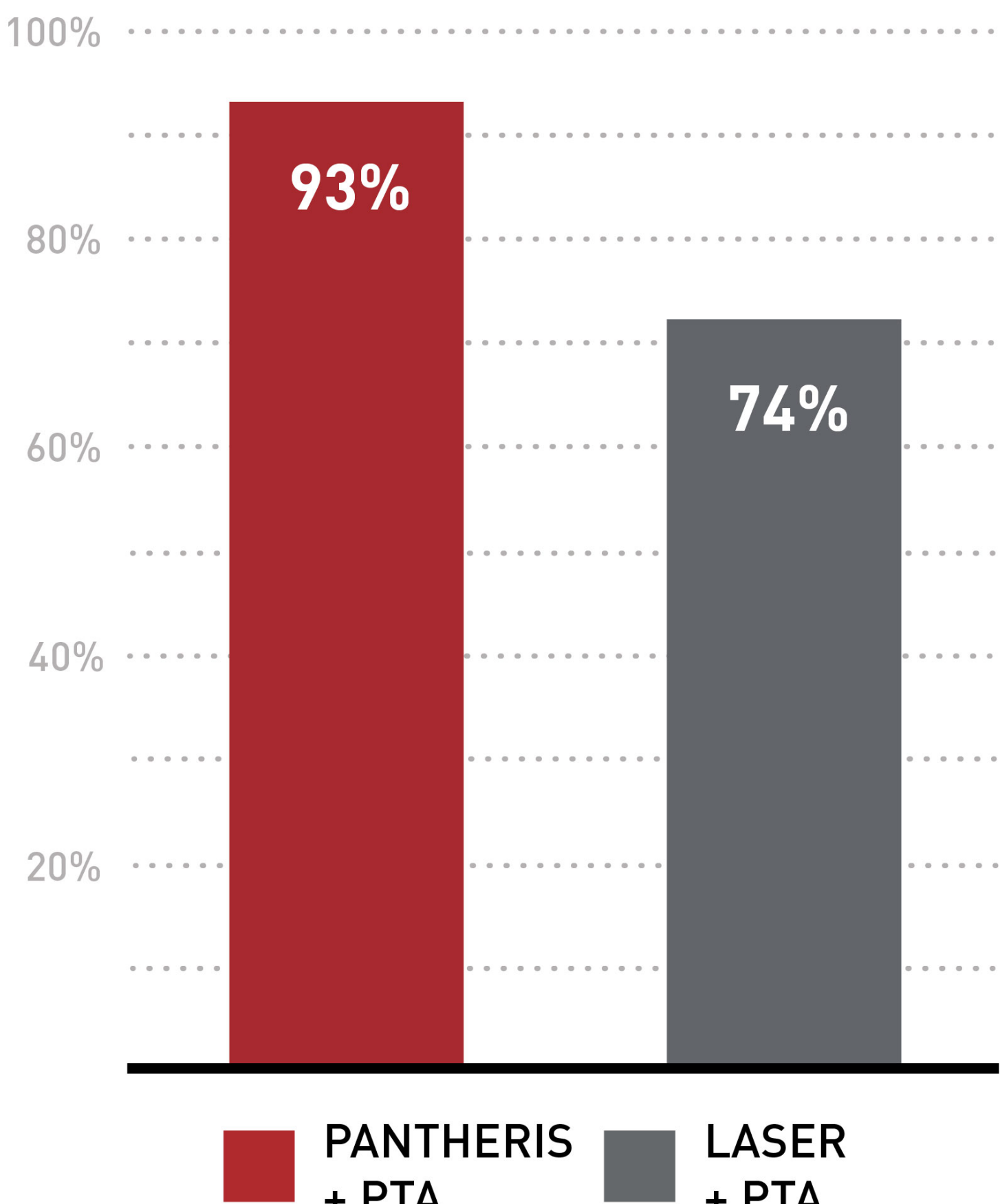
IN COMPARISON: PANTHERIS VS. LASER



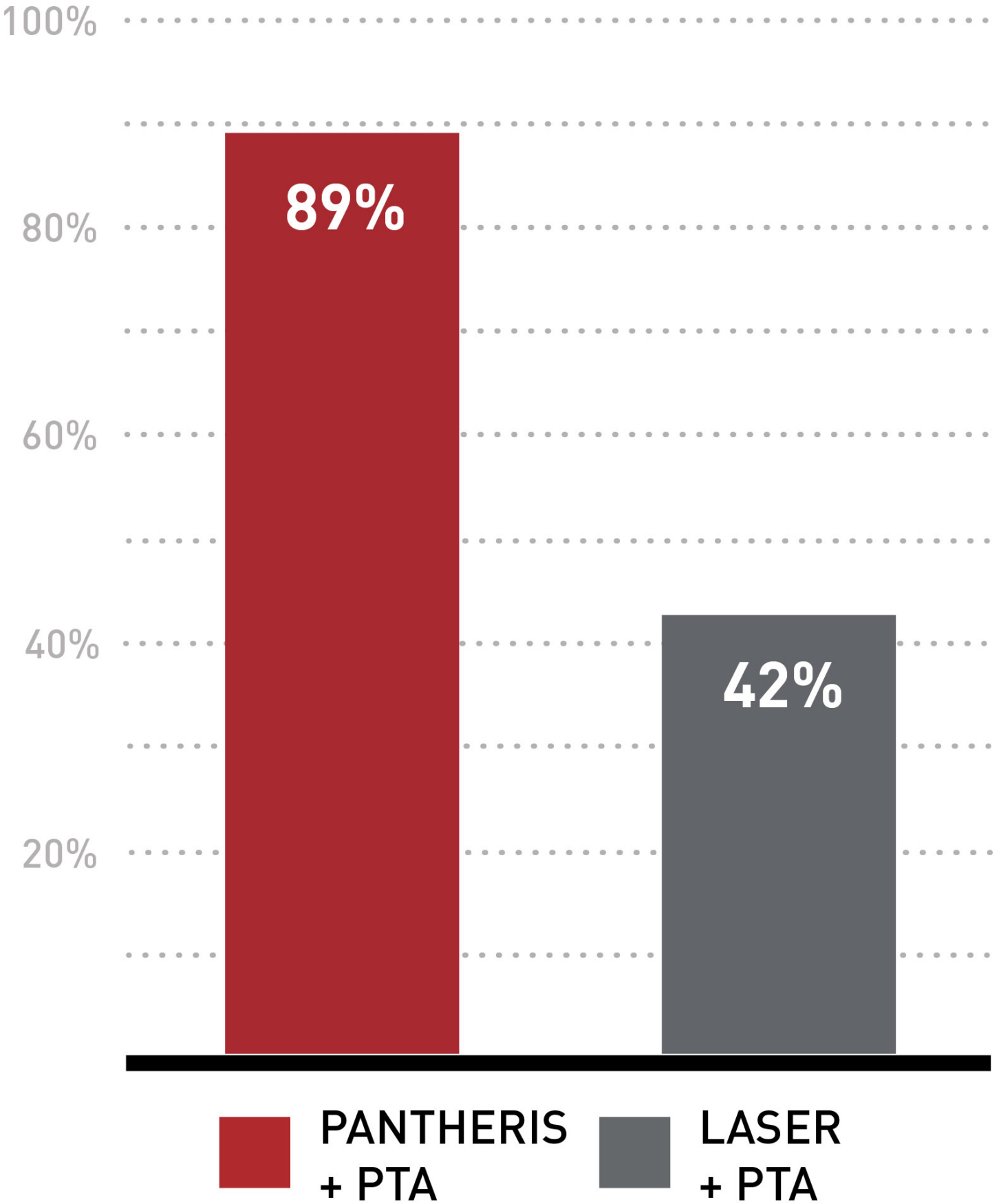
6-Month Freedom from MAE



6-Month Freedom from TLR



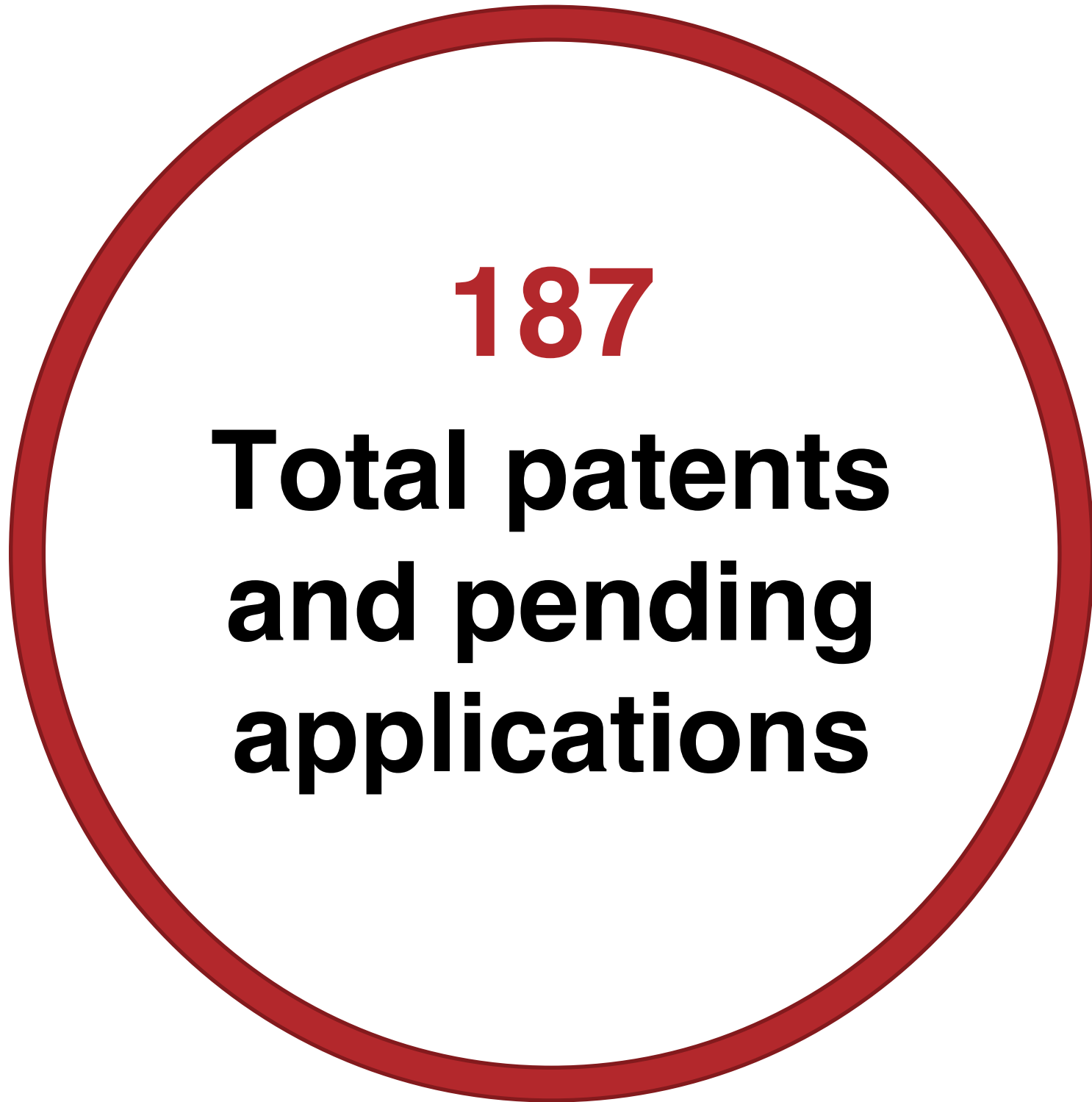
12-Month Freedom from TLR



ROBUST INTELLECTUAL PROPERTY PORTFOLIO

PATENT OVERVIEW

Avinger has an extensive IP portfolio covering key aspects of the design, manufacturing and therapeutic use of OCT imaging catheters, atherectomy devices and imaging console



73 U.S. patents and patent applications

49 issued & allowed U.S. patents
21 pending utility and 3 pending provisional applications

114 Ex-U.S. patents and patent applications

77 issued & allowed ex-U.S. patents
35 pending ex-U.S. applications
2 PCT application pending



As of December 31, 2021