

# ARTIVION™

Formerly Cryolife | Jotec

## BUILDING ON STRENGTHS

A deliberate path  
from profitable stability to  
aggressive, predictable growth



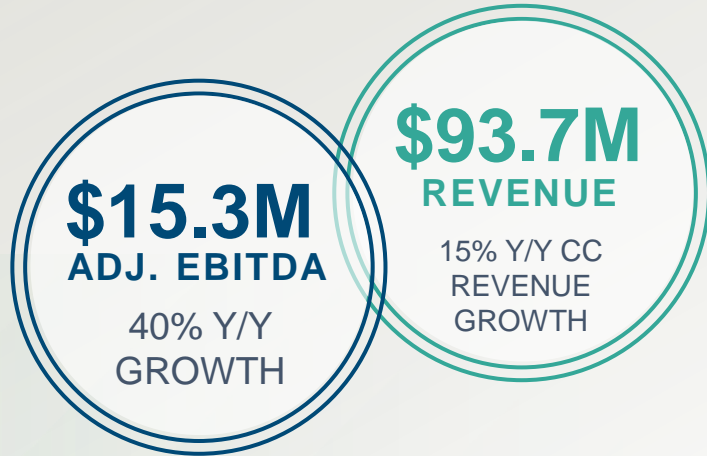
# FORWARD-LOOKING STATEMENT

Statements made in this presentation that look forward in time or that express management's beliefs, expectations, or forecasts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements reflect the views of management at the time such statements are made. These statements include our beliefs that we will deliver double-digit revenue growth from 2022-2024 by focusing globally on cardiac and vascular surgeons who treat patients with aortic disease; we will win through a deep understanding of our customers' most significant clinical challenges and collaborating with them by developing or acquiring simple and elegant solutions that minimize these challenges and reduce healthcare costs; after 2025, our integrated aortic product suite will attain scale globally and grow >15% annually and provide accelerated growth and increased profitability; our investment of \$700M in M&A, product pipeline, global sales team, and global manufacturing has built a leading aortic disease franchise with an estimated total addressable market of \$5.3B; our estimated total addressable markets for surgical sealant, heart valves, aortic arch solutions, and abdominal aorta stent grafts are \$260M, \$350M, \$2.1B, and \$2.6B, respectively; our increased manufacturing capacity will allow us to optimize growth; we have the leading aortic valve portfolio for patients <65 years of age; we are a leader in innovation in aortic repair; we will deliver double-digit growth in 2022-2024 through (a) continued strength in existing products (On-X and aortic stents), (b) positive data from recent late breaking presentations supporting the benefits of AMDS and On-X, (c) continued growth in APAC and LATAM, and (d) improved supply and robust demand of the tissue heart valves; execution on our robust R&D pipeline, consisting of AMDS, NEXUS, Arcevo LSA, and Artivion SX, with a \$1B market opportunity; our estimated total addressable markets for AMDS, E-vita OPEN NEO, and NEXUS are \$540M, \$250M, and \$600M, respectively; the estimated details of and timelines for enrollment and/or FDA approvals of the PMAs for our clinical trials, including PERSEVERE, TRIOMPHE, and the Arcevo clinical trial; our estimated sales percentages by product group; our estimates and related assumptions that we will deliver approximately \$382M - \$396M in revenue for 2024; our expectation to achieve constant currency revenue growth between 8%-12% for 2024 compared to 2023; our estimates and related assumptions that we will be free cash flow positive for 2024; our estimates and related assumptions that our reported and credit facility EBITDA leverage will decrease to 3.0x or less by 2024; our estimates and related assumptions that we will deliver \$68M-\$72M in Adjusted EBITDA in 2024; and the estimated market values for aortic valve stenosis and aortic dissection/aneurysm of \$250M and \$4.9B, respectively. These risks and uncertainties include the risk factors detailed in our Securities and Exchange Commission filings, including our Form 10-K for the year ended December 31, 2023, and our subsequent Form 10-Qs and Form 8-Ks. These risks and uncertainties also include that our beliefs may be incorrect regarding market opportunities, clinical trial timelines, and clearance or approval times for existing or new products or new indications, and our key financial metrics may be incorrect or may change over time. Artivion disclaims any duty to update its forward-looking statements, whether as a result of new information, future events, or otherwise.

# Q4 2023 Key Messages

Strong performance across segments and geographies

ARTIVION™



## On-X

**19% y/y cc revenue growth** led by aortic valve low INR label and recent positive post-approval data

## Preservation services

**18% y/y cc revenue growth** driven by pricing initiatives and operational improvements

## Stent grafts

**8% y/y cc revenue growth** fueled by robust demand and improved supply

## APAC and LATAM

both delivered **19% y/y cc revenue growth**

## Presented positive 30-day safety data at STS 2024 for full IDE cohort of 93 patients in PERSEVERE study showing the trial met all of its primary endpoints

Data demonstrated statistically 72% reduction all all-cause mortality and 52% reduction in primary major adverse events, as well as no occurrence of distal anastomotic new entry (DANE tears)

## Close comprehensive, non-dilutive credit agreement with Ares Management to optimize capital structure

Closed credit agreement for \$350 million of senior secured, interest only, credit facilities with 6-year maturities

Proceeds from initial \$190 million term and \$30 million from the revolving credit facility drawn at close to retire the existing senior secured credit facilities

May draw an additional \$100 million unfunded delayed draw term loan to refinance convertible bonds at any time prior to their maturity

## FY24 revenue and adjusted EBITDA guidance

Expect FY24 reported revenue to be in the range of \$382 to \$396 million; growing 8% to 12% over FY23

Expect FY24 adjusted EBITDA to be in the range of \$68 to \$72 million; growing 26% to 34% over FY23

# Q4 2023 Year-Over-Year Revenue Growth

Product Portfolio

ARTIVION™

Preservation Services



Surgical Sealant



On-X



Aortic Stent Grafts



GAAP Growth

18%

13%

20%

16%

Constant Currency Growth

18%

11%

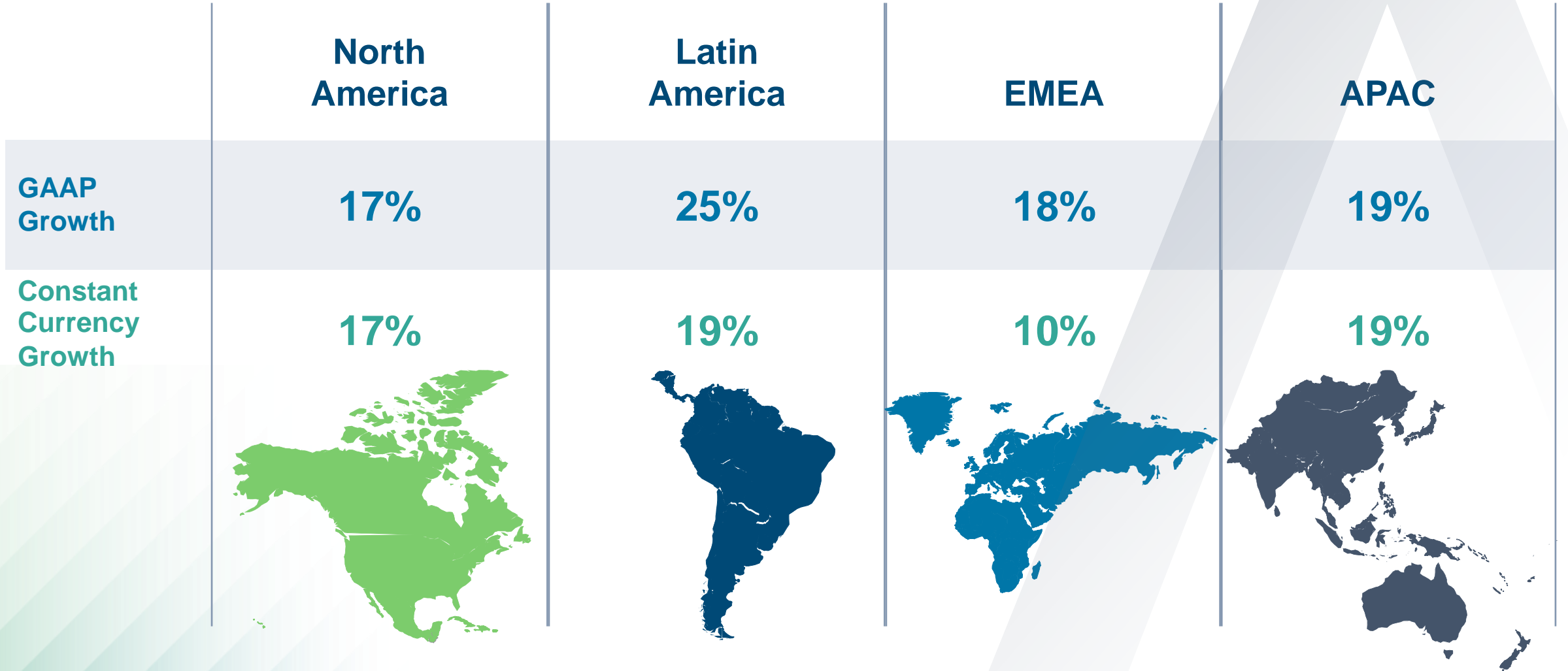
19%

8%

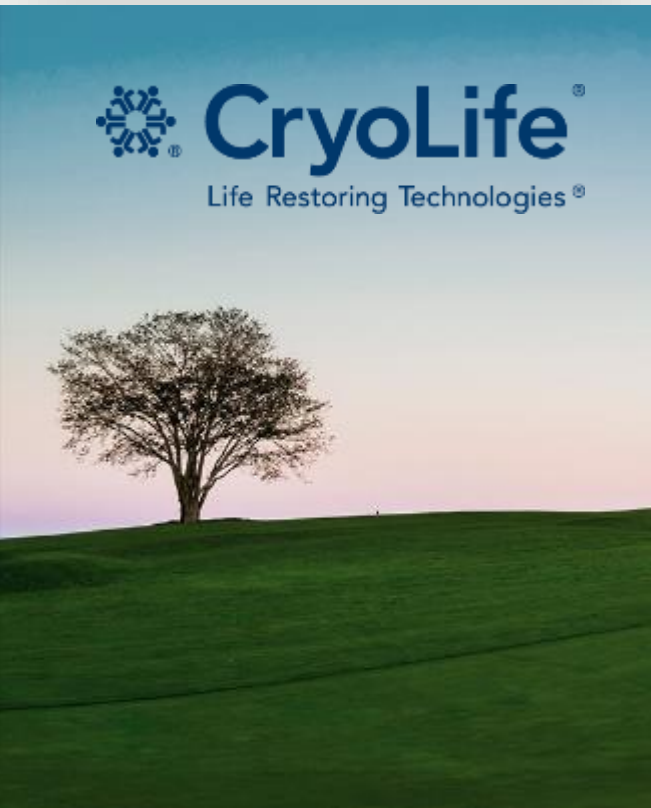
# Q4 2023 Year-Over-Year Revenue Growth

Double-Digit Growth Across Geographies

ARTIVION™



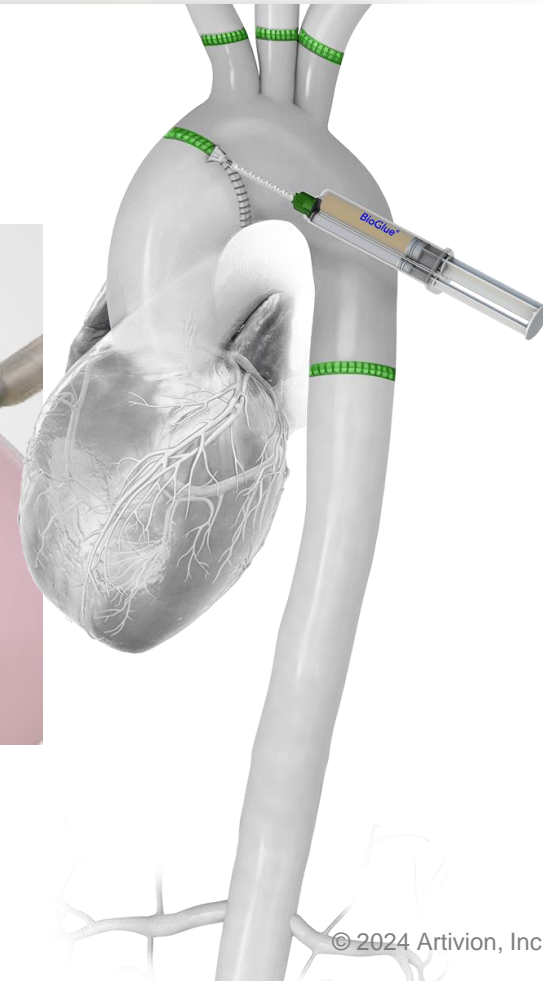
# CRYOLIFE 1984 – 2015: \$500M\* Total Addressable Market (TAM)



## CARDIAC & VASCULAR TISSUE



## BioGlue®



# EXPERIENCED LEADERS

ARTIVION™

Decades of combined experience and leadership in the medical device industry.



**Pat Mackin**

Chairman, President & CEO

Previously with  
**Medtronic**



**Lance Berry**

EVP & CFO



**John Davis**

Chief Commercial Officer



**Jean Holloway**

SVP, GC, CCO & CS



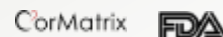
**Marshall Stanton**

SVP, Clinical Research  
& Chief Medical Officer



**Drew Green**

VP, Regulatory  
Affairs



**Rochelle Maney**

VP, Quality



**Robert Thomson**

VP, Research &  
Development



**Florian Tyrs**

VP, Global Operations  
& General Manager,  
Hechingen



**Tim Manning**

VP, Tissue  
Operations



# OUR STRATEGY

## WE WILL DELIVER

Double digit revenue growth from 2022-2024 by focusing globally on cardiac and vascular surgeons who treat patients with aortic disease.

## WE WILL WIN

Through a deep understanding of our customers' most significant clinical challenges and collaborating with them by developing or acquiring simple and elegant solutions that minimize these challenges and reduce healthcare costs.

**INVESTED \$700M  
TO BUILD A LEADING  
FRANCHISE IN  
AORTIC DISEASE**



‘AVOIDING THE PLATEAU’ IN ACTION:  
**Five years expanding  
into new (related)  
product lines.**

\$130M 2016



2017 \$225M



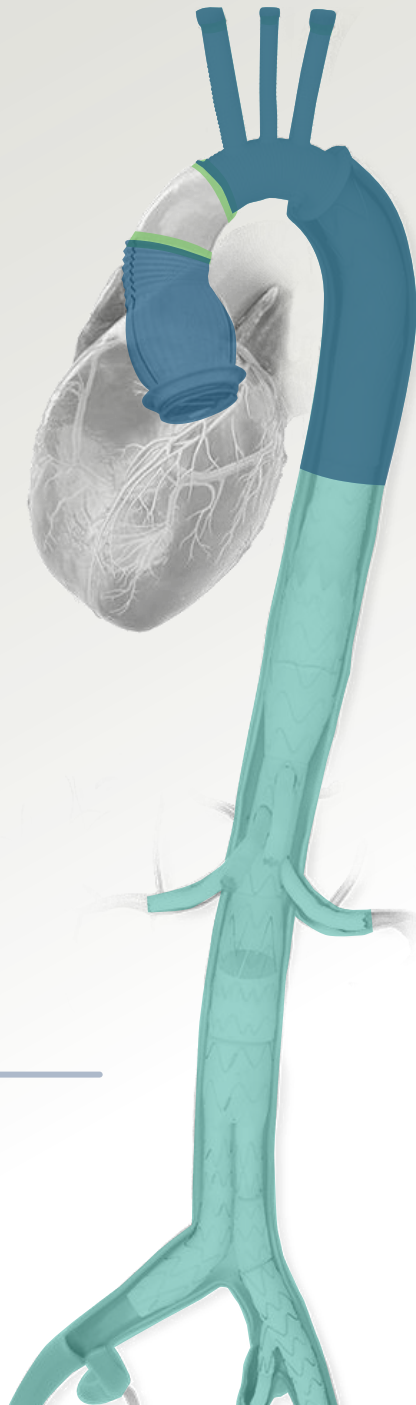
2019 \$20M



2020 \$100M



MERGERS &  
ACQUISITIONS  
**\$475M**



# AORTIC DISEASE FRANCHISE: >\$5.3B TAM\*

ARTIVION™

## Surgical Sealant – \$260M

BioGlue®



Surgical Sealant

## Aortic Arch Solutions – \$2.1B

AMDS™



Surgical Acute  
Type A Dissection

E-vita® Open Neo



Arch Aneurysm &  
Chronic Dissection

NEXUS®



Endovascular  
Branched Arch

Thoracic



Endovascular  
Descending

## Heart Valves – \$350M

On-X®



Mechanical  
Valves

CryoValve®



Aortic  
Allograft

CryoValve® SG



Pulmonary  
Allograft

## Abdominal Aorta Stent Grafts – \$2.6B

E-nside™



Thoracoabdominal

E-tegra™



Abdominal

E-liac™

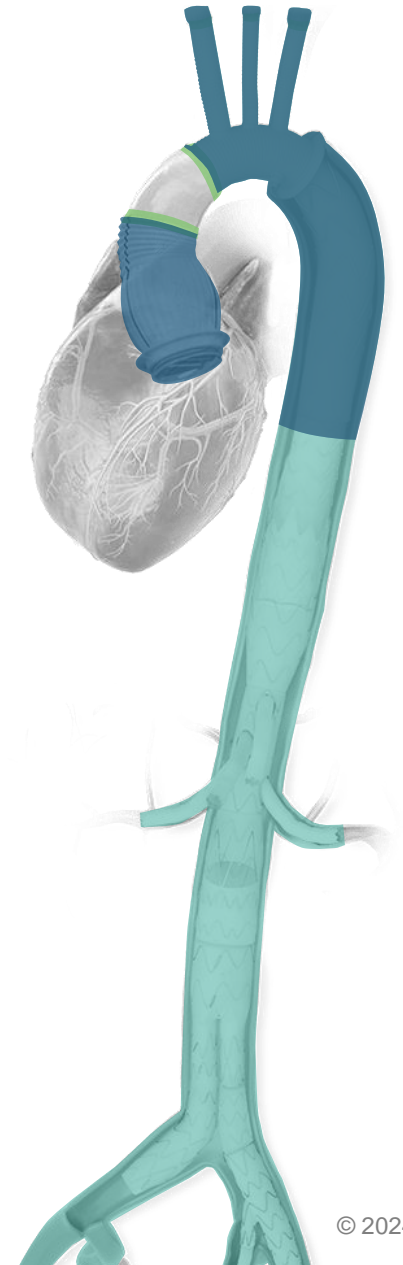


Iliac

E-ventus™



Peripheral



# GLOBAL SALES TEAM OF 185 DIRECT REPRESENTATIVES

ARTIVION™



# INCREASE MANUFACTURING CAPACITY TO OPTIMIZE GROWTH

ARTIVION™



## ATLANTA, GA • USA

200,000 sq. ft. total  
162 dedicated  
manufacturing personnel

BioGlue & Tissue



## AUSTIN, TX • USA

70,000 sq. ft. total  
110 dedicated manufacturing  
personnel

On-X Heart Valves



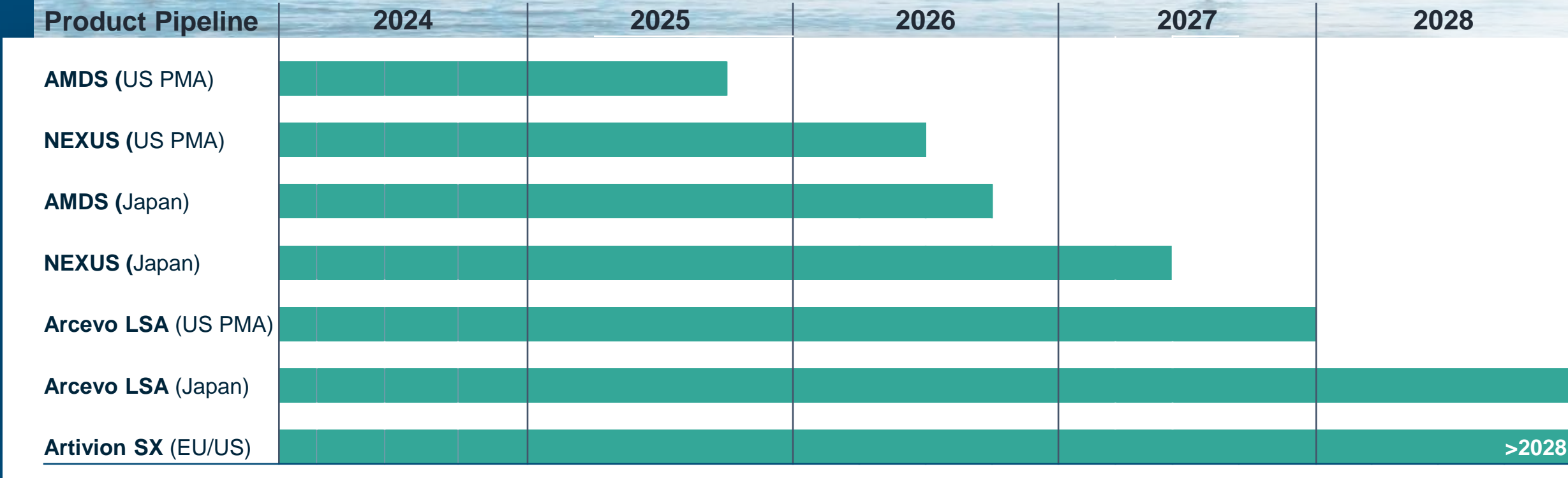
## HECHINGEN • GERMANY

156,000 sq. ft. total  
325 dedicated  
manufacturing personnel

Stent Grafts

BUILDING ON LEADERSHIP IN THE AORTIC MARKET

**\$1 Billion Market Opportunity in Active R&D Projects**



ARTIVION™

# ARTIVION™

**Aorta + Innovation + Vision**



# A NARRATIVE OF STRATEGIC PROGRESS

## YESTERDAY (ca. 2015)

TISSUE AND GLUE

**CAGR 5-7%**

**PRO** Stable, Profitable

**CON** Limited TAM

**TAM: \$600 MILLION**

## TODAY

INTEGRATED AORTIC  
PRODUCT SUITE  
(TISSUE, GLUE, STENTS, VALVES)

**CAGR 9-11%**

**PRO** M&A Phase Complete,  
Deleveraging,  
Investment

**CON** Regulatory Approvals  
Needed

## TOMORROW (post-2025)

INTEGRATED AORTIC  
PRODUCT SUITE, ATTAINING  
SCALE GLOBALLY

**CAGR >15%**

**PRO** Accelerated Growth,  
Increased Profitability

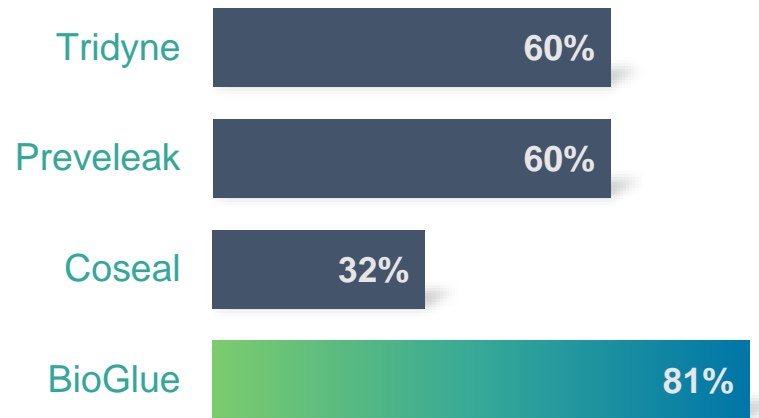
**TAM: >\$5.3 BILLION**

# BIOGLUE® PROVEN SAFE AND EFFECTIVE IN OVER 2.5 MILLION PROCEDURES GLOBALLY<sup>1</sup>

ARTIVION™

## IMMEDIATE SEALING/HEMOSTASIS<sup>2-5</sup>

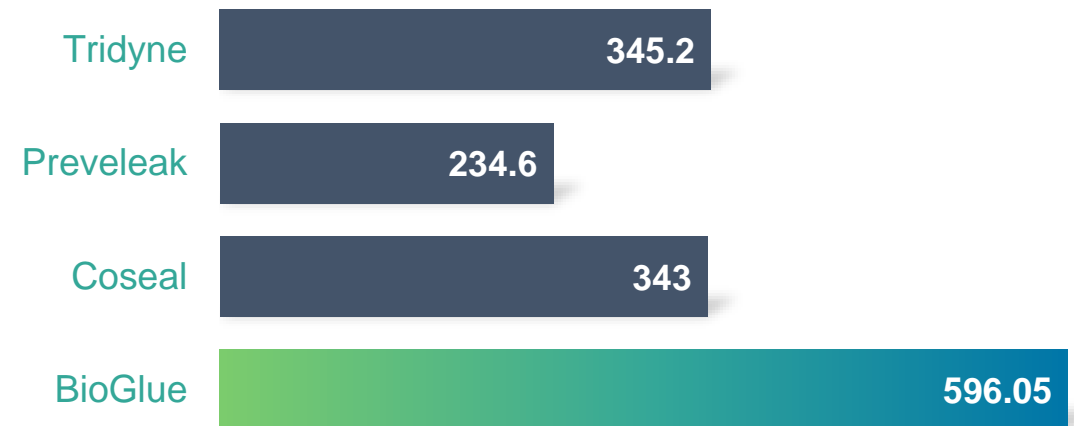
PATIENT POPULATION



**BioGlue leads the market** with 81% hemostasis immediately following application

## BURST STRENGTH<sup>6</sup>

PRESSURE (mmHg)



**Almost 2x the strength, BioGlue 596 mmHg vs. 307mmHg (average of competition)**

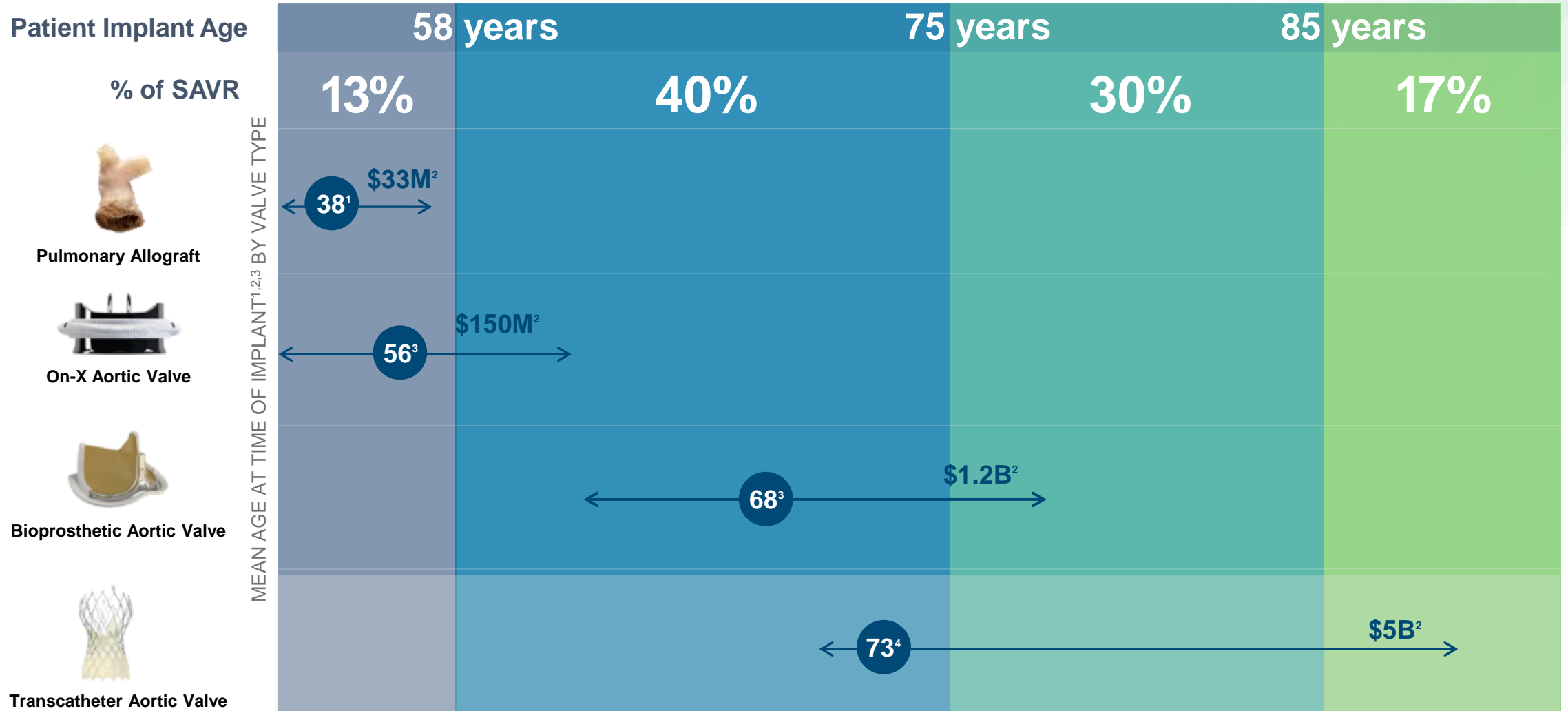
## BioGlue® INDICATIONS<sup>2</sup>:

Complements our cardiac and open vascular procedure products



# LEADING AORTIC VALVE PORTFOLIO FOR PATIENTS <65 YEARS OF AGE

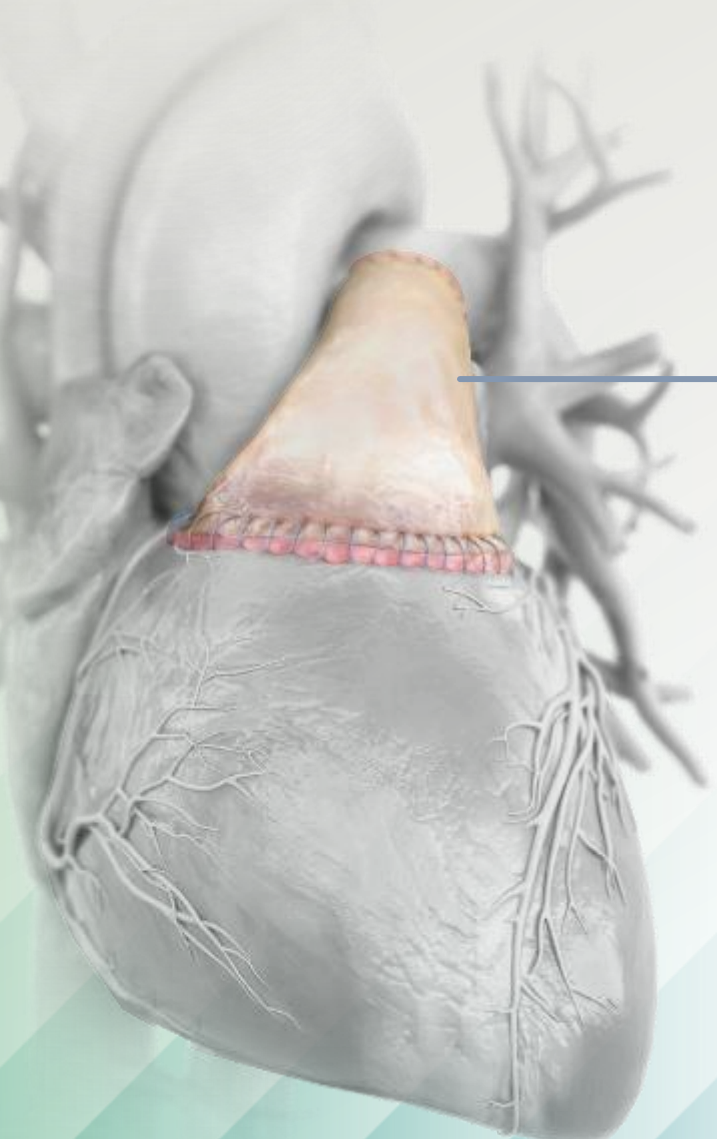
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1. Mazine A et al., JACC 2018;72(22):2761-77 2. Internal market model for valve replacement technologies 2021 et al. Ann Thorac Surg. 2020; doi: 10.1016/j.athoracsur.2020.09.002. 3. Weighted national estimates from HCUP National (Nationwide) Inpatient Sample (NIS), 2017 4. 2019 average patient age (yrs): Carroll JD,

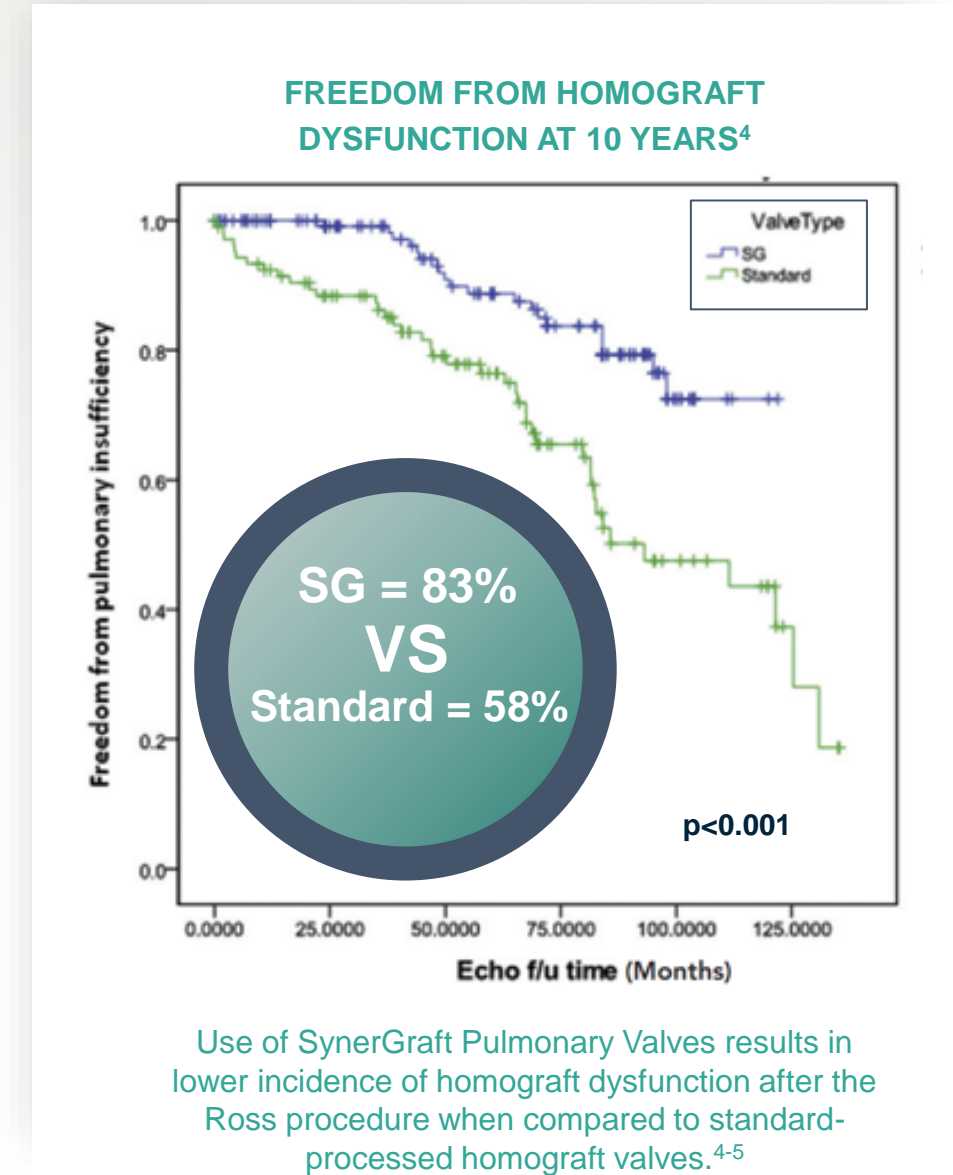
# SYNERGRAFT® PULMONARY VALVE FOR THE ROSS PROCEDURE

ARTIVION™



The Ross procedure is the only aortic valve replacement (AVR) option proven to restore patient survival for age- and gender-matched populations, with data out to 25-years.<sup>1-3</sup>

Artivion's CryoValve SynerGraft (SG) Pulmonary Valve is the first and only decellularized, pulmonary valve allograft cleared by the FDA (510k) and available in North America.



Use of SynerGraft Pulmonary Valves results in lower incidence of homograft dysfunction after the Ross procedure when compared to standard-processed homograft valves.<sup>4-5</sup>

# ON-X VALVE UNIQUE MATERIAL AND DESIGN



## On-X Heart Valves

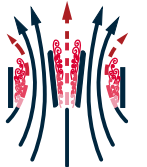
## All Other Bileaflet Valves

1 90° leaflets:<sup>1</sup>  
promoted  
laminar flow

90°  
Opening



< 90°  
Opening



2 Flared inlet:  
organizes flow  
prevents pannus

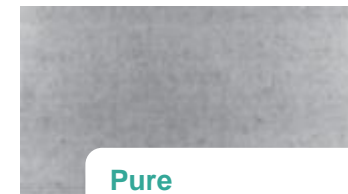


Complete Annulus Support



Incomplete Annulus Support

3 Pure pyrolytic  
carbon: reduces  
thrombogenicity<sup>2</sup>



Pure  
Pyrolytic Carbon<sup>2</sup>

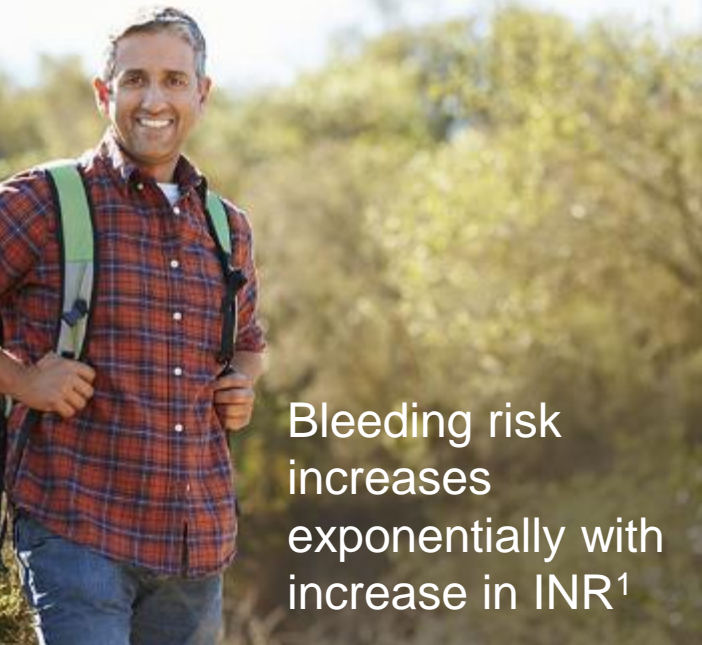


Silicone-Alloyed  
Pyrolytic Carbon<sup>2</sup>

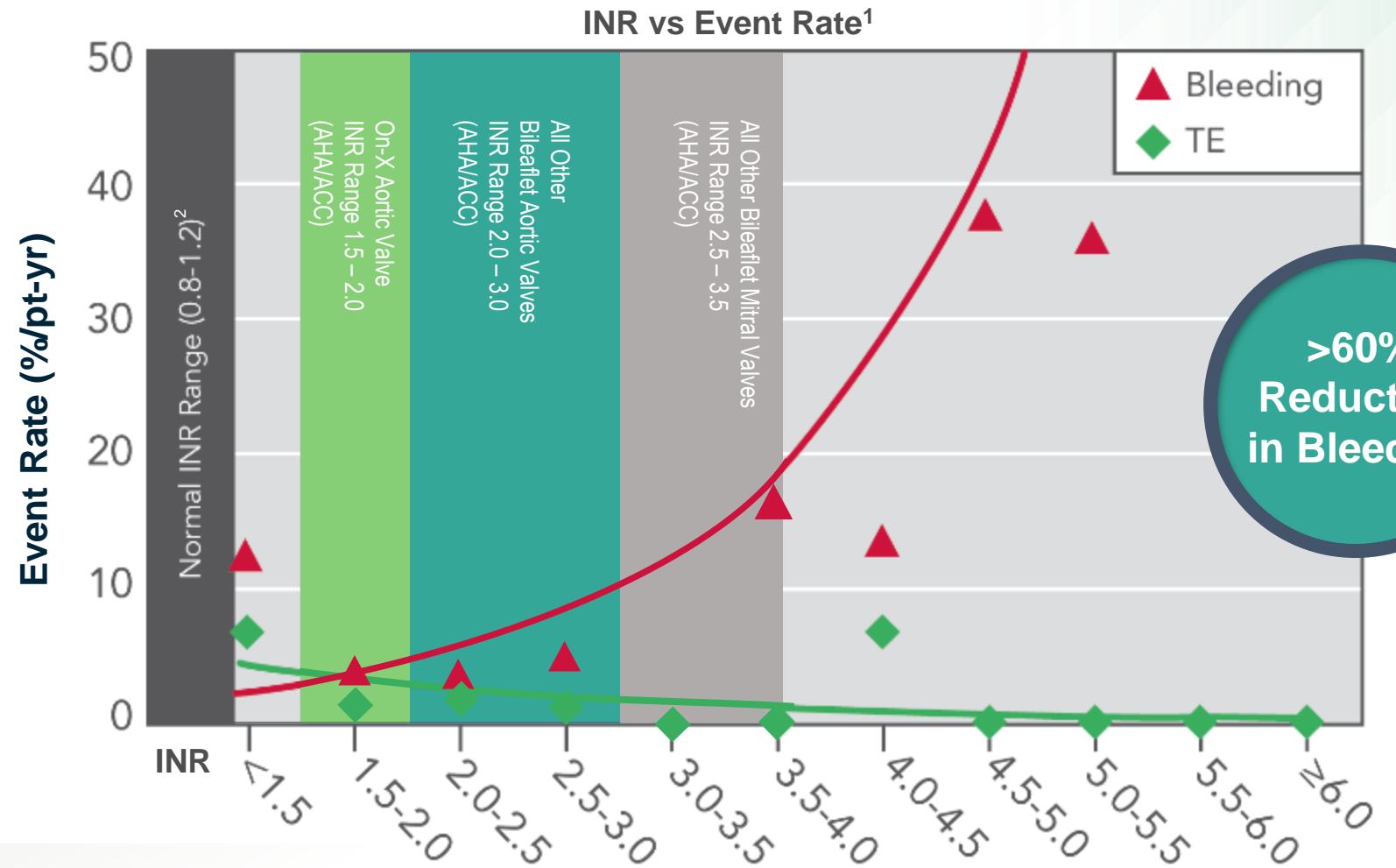
# PROACT AORTIC TRIAL RESULTS

ARTIVION™

First and Only FDA Approved Mechanical Aortic Valve for Reduced INR\*



Bleeding risk increases exponentially with increase in INR<sup>1</sup>



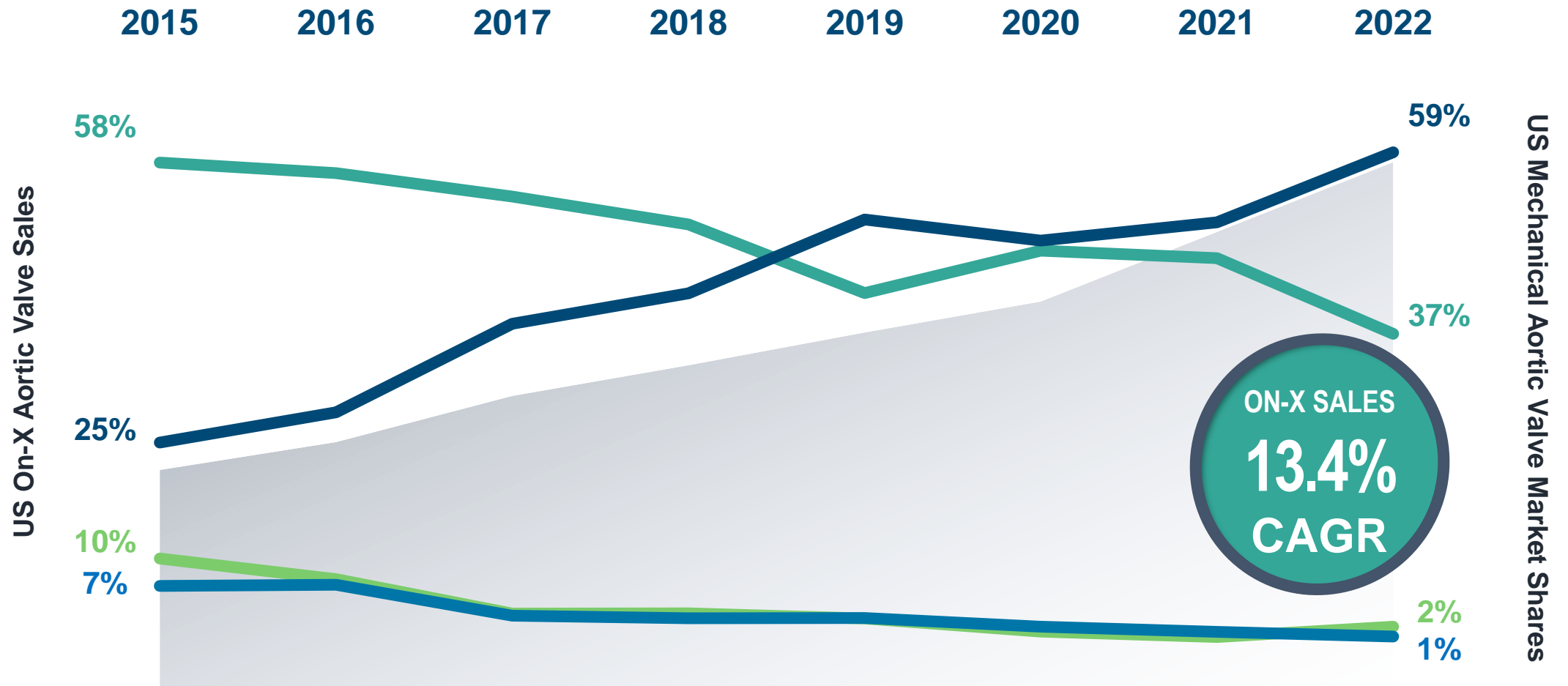
>60% Reduction in Bleeding

\*Reduce INR after 3 months standard therapy

1. Data on file.

2. Levine M et al., Monitoring of international normalized ratios: comparison of community nurses with family physicians. Can Fam Physician 2012;58:e465-71

# ON-X AORTIC VALVE US REVENUE AND MARKET SHARE\*



\*Market share estimates derived from 2022 IQVIA Medical device supply audit and historical sales reports.

# REAL-WORLD EXPERIENCE OF 510 ON-X AVR PATIENTS TREATED WITH LOW-DOSE WARFARIN

ARTIVION™

EACTS 2023  
Late-Breaking Session

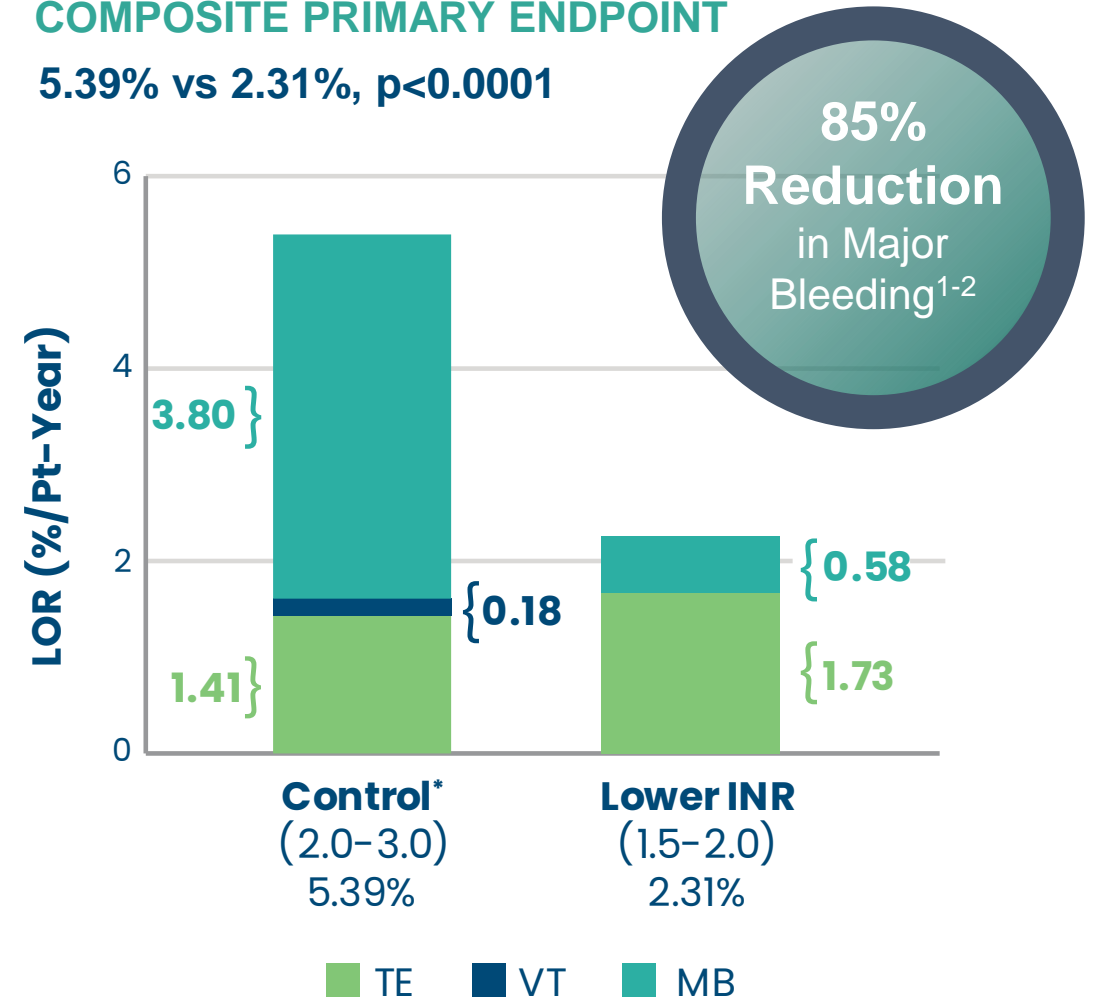
Real world data shows the On-X Aortic Heart Valve at low INR significantly reduces risk of major bleeding, while proving safe for the patient with **no significant increase in thromboembolism and no valve thrombosis.**<sup>1</sup>

**510**  
Patients

Real-World Representation  
of INR Monitoring



**COMPOSITE PRIMARY ENDPOINT**  
5.39% vs 2.31%, p<0.0001

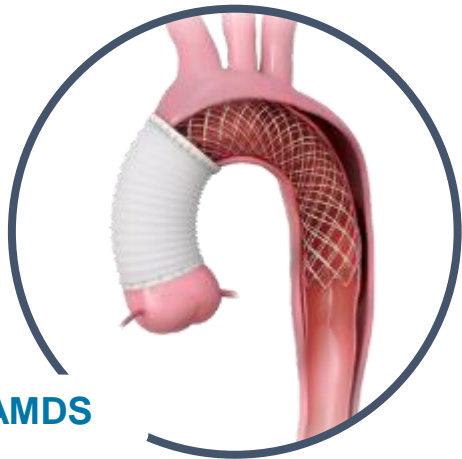


1. Oo AY, et al. Presented at the European Association for Cardio-Thoracic Surgery Annual Meeting, October 2023. 2. Puskas J, et al. (2014). Reduced anticoagulation after mechanical aortic valve replacement: Interim results from the Prospective Randomized On-X® Valve Anticoagulation Clinical Trial randomized Food and Drug Administration investigational device exemption trial. J Thorac Cardiovasc Surg, 147(4), 1201-11.  
\*Artivion data on file, weighted average of control groups from FDA Premarket Approval P000037 S030 and IDE trial G050208.

# AORTIC ARCH SOLUTIONS: \$2.1B TAM\*

ARTIVION™

## Hybrid Acute Type A Dissection (ATAD) Prosthesis



AMDS

**\$540M TAM**

Acute Type A Dissections (ATAD)

## Frozen Elephant Trunk Hybrid System

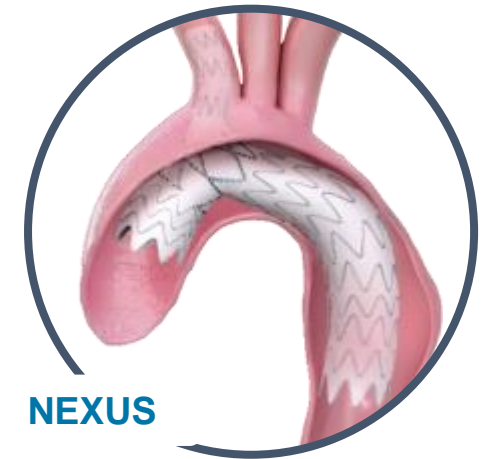


E-vita  
OPEN NEO

**\$250M TAM**

Dissections & Arch Aneurysms

## Endovascular Arch Branch System



NEXUS

**\$600M TAM**

Chronic Dissections, Aneurysms, or PAU\*\* involving the Aortic Arch

\*\$2.1B total addressable market includes the referenced portfolios shown as well as endovascular descending (Thoracic) devices. Data sourced from internal models 2022

# AMDS US PIVOTAL TRIAL

**Strategic Intent:** Bring AMDS to US for treatment of acute aortic dissection; leverage these data for Japan and China approvals.

## STUDY DESIGN

Acute DeBakey Type I dissection w/ clinical or radiographic malperfusion  
93 Subjects; 25 US Sites; 1 Year Follow Up

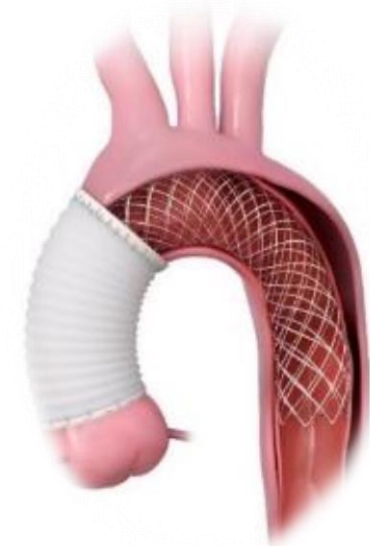
## PRIMARY ENDPOINTS

30-day all-cause mortality + new disabling stroke + new renal failure requiring dialysis + MI  
c/w published standard of care (hemiarch) outcomes  
Maximal true lumen diameter change at 1-yr

## PROJECT STATUS

Enrollment	Completed
Follow Up	~ 2024
Approval	~ 2025

## PERSEVERE



# AMDS PERSEVERE US IDE Study

ARTIVION™

STS 2024  
Late-Breaking Session

Full IDE data suggests AMDS use significantly lowers 30-day Major Adverse Events (MAEs) compared to hemiarach control

Through Hospital Discharge Data

## ACUTE DEBAKEY TYPE I (ADTI) WITH MALPERFUSION

Hemiarach Reference Cohort Avg.<sup>1</sup> (n=790)

**PERSEVERE<sup>2</sup>**  
(n=93)

58.2%

≥ 1 MAE  
P<0.0001

**28.0%**

34.6%

All-Cause Mortality

**9.7%**

20.9%

New Disabling Stroke

**11.8%**

24.1%

Renal Failure Requiring Dialysis

**19.4%**

10.5%

Myocardial Infarction

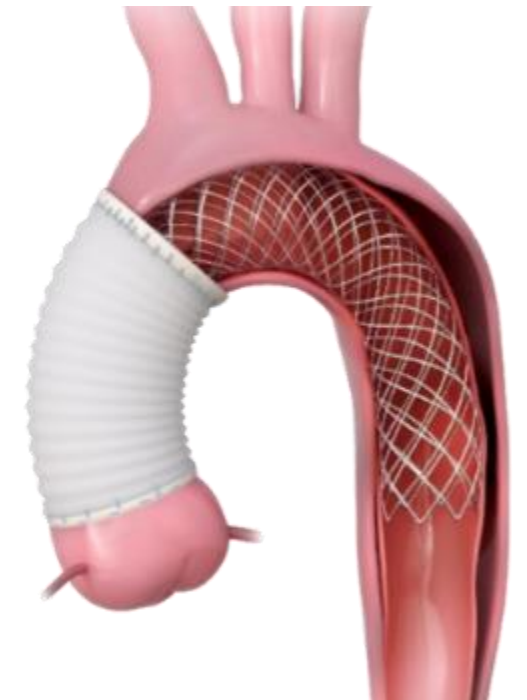
**0.0%**

45.0%

Distal Anastomotic New Entry

**0.0%**

Full 30-Day Data



**Total patients with ≥ 1MAE**  
PERSEVERE: 28%  
Goal: < 40%

26 1. Zindovic I, 2019. Pacini D, 2013. Girdauskas E, 2009. Geirsson A, 2007. and Bossone E, 2002.  
2. Adjudicated data as presented at STS January 2024, manuscript pending publication

# NEXUS BY ENDOSPAN US PIVOTAL TRIAL

**Strategic Intent:** Fund Endospan's US pivotal clinical trial with option to acquire post-FDA approval.

## STUDY DESIGN

Chronic Aortic Arch disease: chronic dissection (n=60), aneurysm (n=20), PAU/IMH\*\* (n=20)  
100 Patients; ~30 US sites / 1 Year follow up

## PRIMARY ENDPOINTS

30-day clinical outcome: mortality, disabling stroke, permanent paralysis/paraplegia, renal failure, aortic rupture, new dissection in thoracic aorta or brachiocephalic artery 30-day device technical failure

		30 Days	1 Year
First in Man Results* (8 Patients; age 72 +/- 6 yrs)	<b>Mortality</b>	7.1%	10.7%
	<b>Stroke / TIA</b>	3.6%	7.1%
	<b>Spinal Cord Ischemia</b>	0.0%	0.0%

## PROJECT STATUS

Feasibility	Complete
Enrollment	~ 2023-2024
Follow Up	~ 2024-2025
Approval	~ 2026

**TRIOMPHE**  
S T U D Y



\*Planer et al: Annals of Surgery 2021

\*\* Penetrating Aortic Ulcer/Intramural Hematoma

# ARCEVO US DEVELOPMENT + PIVOTAL TRIAL

**Strategic Intent:** Bring novel, 3rd generation aortic arch device to the US for treatment of acute or chronic dissection, or aneurysm involving the Aortic Arch.

## STUDY DESIGN

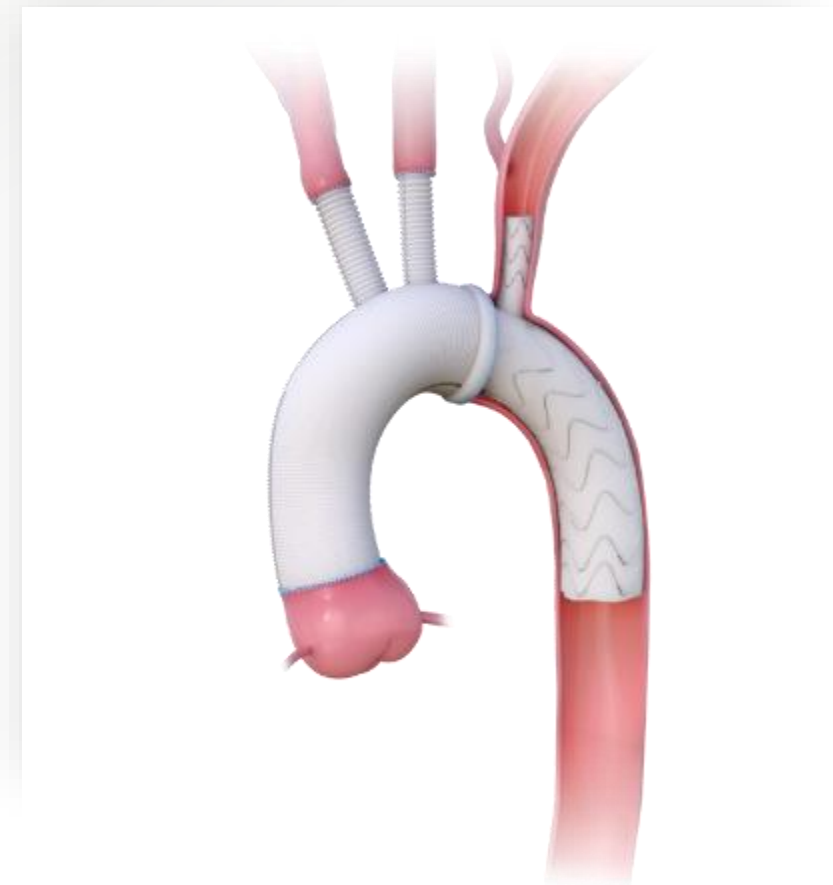
Pivotal: 65 patients / 20-25 sites

## ANTICIPATED PRIMARY ENDPOINTS (COMPOSITE ENDPOINT THROUGH 1-YEAR)

- All-cause mortality
- Permanent disabling stroke
- Permanent paraplegia/paraparesis
- Unanticipated aortic-related reoperation or conversion to open surgery




















## PROJECT STATUS

Development	~ 2023-2024
Enrollment	~ 2024-2025
Follow Up	~ 2026
Approval	~ 2027



# LEADING INNOVATION IN AORTIC REPAIR

ARTIVION™

Product Groups	Cardiac & Vascular Allografts	Surgical Sealant	Ascending & Arch			Endovascular Thoraco-abdominal System	Aortic and Mitral Heart Valve
			Hybrid Acute Type A Dissection (ATAD) Prosthesis	Hybrid Frozen Elephant Trunk (FET) System	Endovascular Arch Branch System		
Sales %	27%	21%	29%				20%
ARTIVION	CryoValve SG 	BioGlue 	AMDS 	E-vita Open Neo 	NEXUS 	E-nside & Extra Design 	On-X 
							
							
							
							
							
							
							
							
							
							
							
							

# Full Year 2024 Revenue Guidance

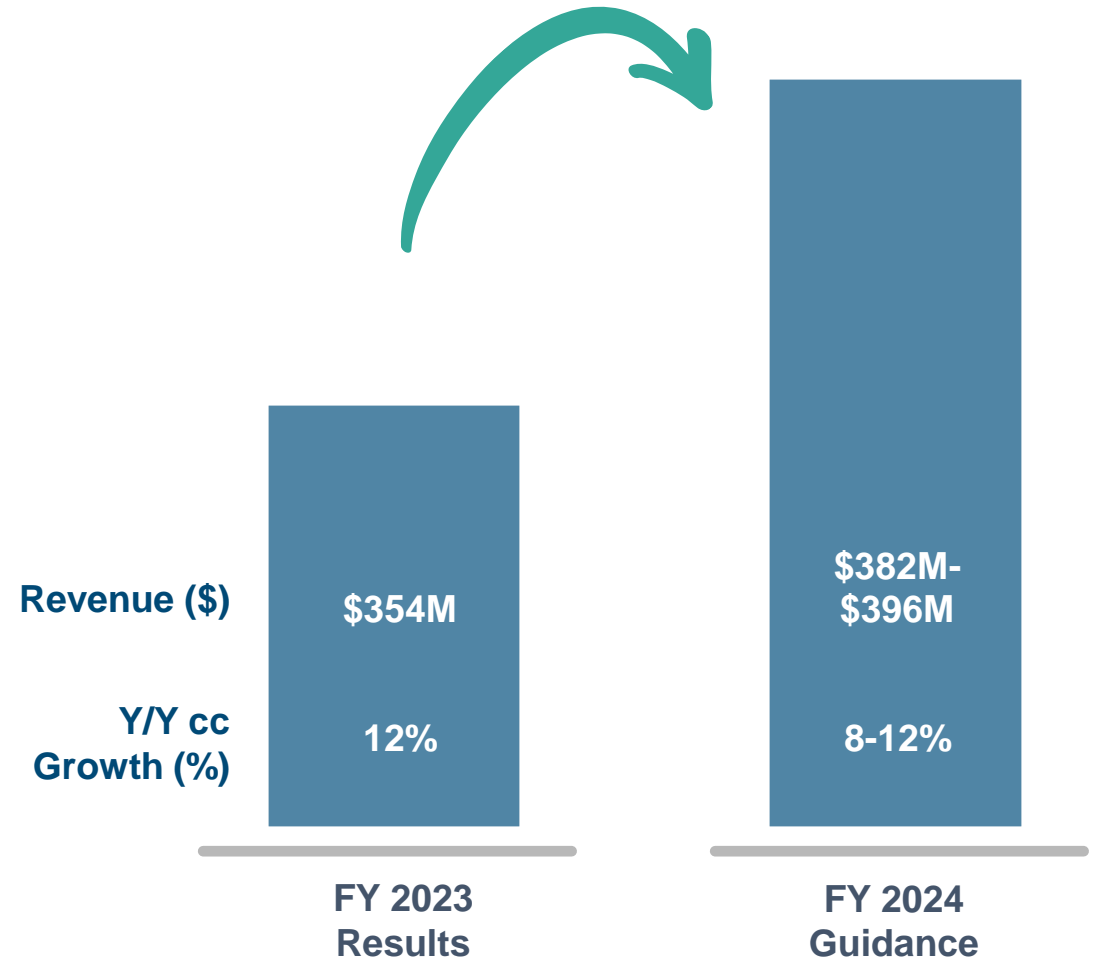
## GROWTH DRIVERS

**Continued strength in existing products:** On-X & aortic stents

**Positive data** from the recent late-breaking presentations supporting the benefits of AMDS and On-X

**Continued APAC & LATAM growth** as a result from our investments and new regulatory approvals

**Improved supply and robust demand** of the tissue heart valves



# Full Year 2024 Adjusted EBITDA Expectations

Revenue growth and operating leverage to drive adjusted EBITDA expansion

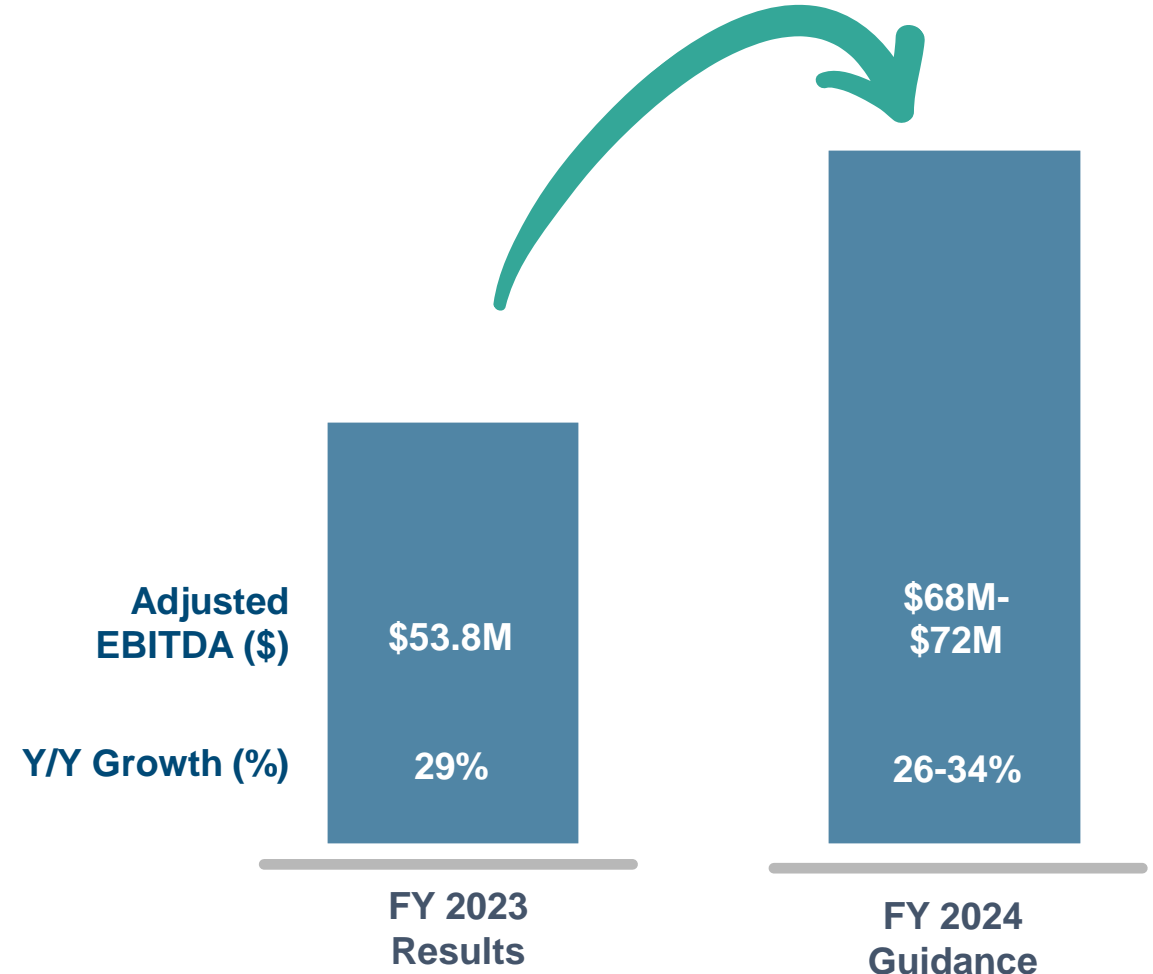
## DRIVERS

Expectations for continued leverage to be driven from global sales force and G&A infrastructure

Revenue growth and adjusted EBITDA margin expansion drives incremental cash flow

Expect to be free cash flow positive for FY24

Expect adjusted EBITDA leverage to be ~3x



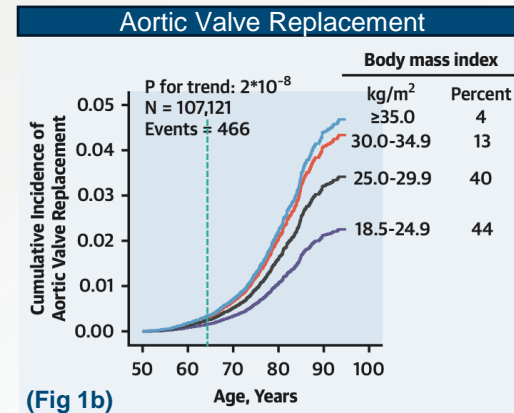
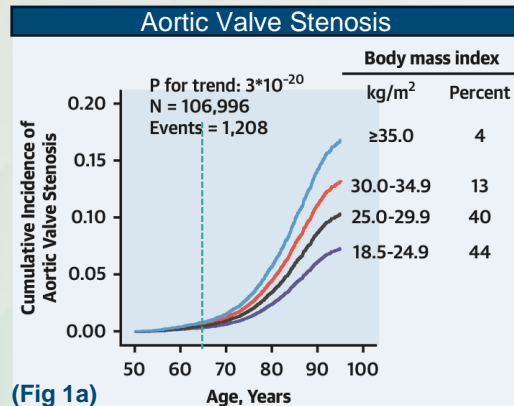
# AORTIC VALVE STENOSIS (AS) <65 YRS

## Major Risk Factors

1. Congenital: Bicuspid aortic valve (60%)<sup>1</sup>
2. Familial/Genetic
3. Rheumatic heart disease (emerging markets)

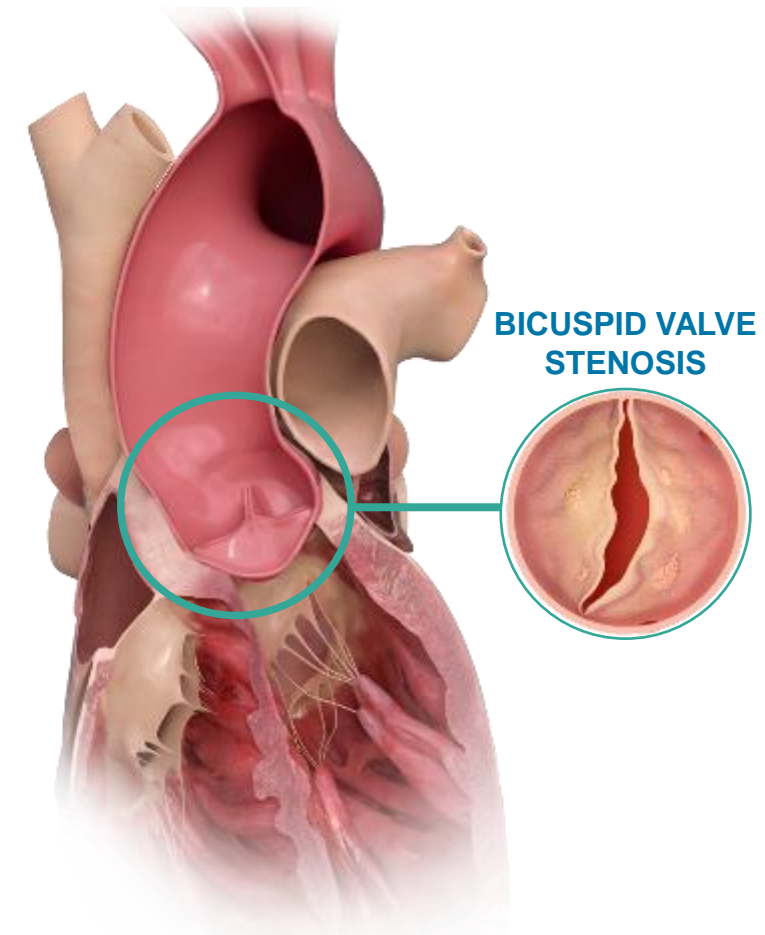
## Relationship to Obesity and GLP-1 RA

1. Obesity is not a risk factor for incidence of AS or aortic valve replacement (AVR) in people age <65 yrs (Fig 1a, 1b) **106,996 patients, median f/u 8.7 yrs<sup>2</sup>**



2. Obesity does not affect progression of AS in people age < 65 yrs **1,664 patients, mean f/u 4.3 yrs<sup>3</sup>**
3. Statins impact Coronary Artery Disease (CAD)/Myocardial Infarction (MI) and is a useful corollary to GLP-1R agonists. Despite lipoprotein(a) correlating with AS, statin trials showed no effect in AS<sup>4,5</sup> AS surgeries have increased while statin use has increased

MARKET VALUE - \$250M

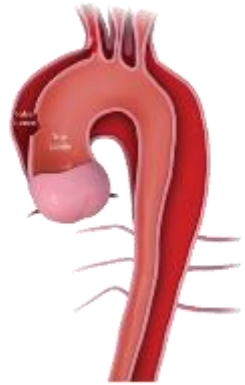


# AORTIC DISSECTION / ANEURYSM

MARKET VALUE - \$4.9B

ARTIVION™

## Major Risk Factors

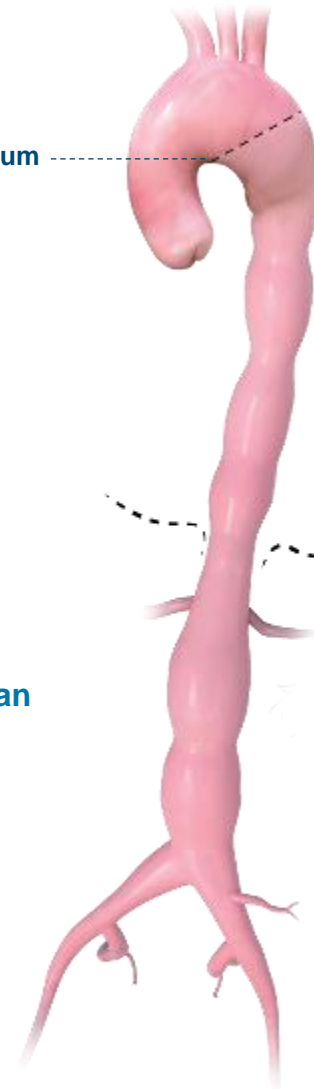


### Aortic Dissection

1. Hypertension
2. Bicuspid aortic valve
3. Genetic (CTD+)

+ Connective Tissue Disorder

Ligamentum Arteriosum



### Thoracic Aneurysms



1. Familial (21%; non-CTD+)
2. Sporadic\*
3. Bicuspid aortic valve
4. Genetic (5+%, CTD+)

\*Probably 1<sup>st</sup> occurrence of familial  
+ Connective Tissue Disorder

## Relationship to Obesity and GLP-1 RA

Very large studies do not show an association with aneurysm/dissection:

1. No association of AAA with weight, abdominal girth or diabetes<sup>1</sup>; **(104,813 pts, median 13 yrs f/u)**
2. No association of dissection with BMI<sup>2</sup>; **(103,972 pts, median 19 yrs f/u)**
3. No association of death from aneurysm with BMI<sup>3</sup>; **(404,753 pts)**
4. GLP-1 receptor agonist drugs only marginally reduce BP by 3/1\* mm Hg (systolic/diastolic)<sup>4</sup>; **(61,299 pts)**
5. While smoking, a major risk factor for AAA, has decreased considerably in the U.S., AAA repair surgery volumes have increased.

### Abdominal Aneurysms



1. Age  $\geq$  65 yrs (8x risk)<sup>1++</sup>
2. Male gender (5x risk)<sup>1</sup>
3. Smoking (3-5x risk)<sup>1</sup>
4. Dyslipidemia (3x risk)<sup>1</sup>
5. Hypertension (2x risk)<sup>1</sup>

++ Age (45-65 yrs) has 4x risk



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Thank you