



InspireMD Poised to Revolutionize the Carotid Intervention Market

INSPIREMD

Nasdaq: NSPR

Disclaimers

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This presentation contains "forward-looking statements." Such statements may be preceded by the words "intends," "may," "will," "plans," "expects," "anticipates," "projects," "predicts," "estimates," "aims," "believes," "hopes," "potential" or similar words. For example, the Company is using forward-looking statements when it discusses the potential commercialization and market opportunities for its products and product candidates, its cash runway, and its anticipated future milestone Company events. Forward-looking statements are not guarantees of future performance, are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the Company's control, and cannot be predicted or quantified and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, risks and uncertainties associated with (i) market acceptance of our existing and new products, (ii) negative clinical trial results or lengthy product delays in key markets, (iii) an inability to secure regulatory approvals for the sale of our products, (iv) intense competition in the medical device industry from much larger, multinational companies, (v) product liability claims, (vi) product malfunctions, (vii) our limited manufacturing capabilities and reliance on subcontractors for assistance, (viii) insufficient or inadequate reimbursement by governmental and other third party payors for our products, (ix) our efforts to successfully obtain and maintain intellectual property protection covering our products, which may not be successful, (x) legislative or regulatory reform of the healthcare system in both the U.S. and foreign jurisdictions, (xi) our reliance on single suppliers for certain product components, (xii) the fact that we will need to raise additional capital to meet our business requirements in the future and that such capital raising may be costly, dilutive or difficult to obtain and (xiii) the fact that we conduct business in multiple foreign jurisdictions, exposing us to foreign currency exchange rate fluctuations, logistical and communications challenges, burdens and costs of compliance with foreign laws and political and economic instability in each jurisdiction. More detailed information about the Company and the risk factors that may affect the realization of forward- looking statements is set forth in the Company's filings with the Securities and Exchange Commission (SEC), including the Company's Annual Report on Form 10-K and its Quarterly Reports on Form 10-Q. Investors and security holders are urged to read these documents free of charge on the SEC's web site at <http://www.sec.gov>. The Company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.

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Executive Leadership Team

Deep industry experience and subject matter expertise



Marvin Slosman
Chief Executive Officer

- 30+ years medical device experience, NSPR since 2019
- Previous CEO/President of ITAMAR Medical, Ovalum Vascular, Phormax Medical
- Prior experience at JNJ, GE Healthcare and Baxter
- BS from University of Alabama, MBA from University of Chicago



Shane Gleason
Chief Commercial Officer

- 20+ years cardiovascular medical device experience, NSPR since 2023
- Previous CCO of Nuvaira; VP Sales of TriVascular, Cordis and Surmodics
- Prior experience at Abbott and Edwards Lifesciences
- BS in Engineering Science and Mechanics from Virginia Tech, MBA from University of Maryland



Craig Shore
Chief Financial Officer

- 25+ years of international financial management, NSPR since 2010
- Previous CFO of RIT Technologies
- Prior experience at GE, Dunn and Bradstreet, Pfizer Pharmaceuticals and Bristol Meyer Squibb
- BS in Finance from Penn State, MBA from George Washington University

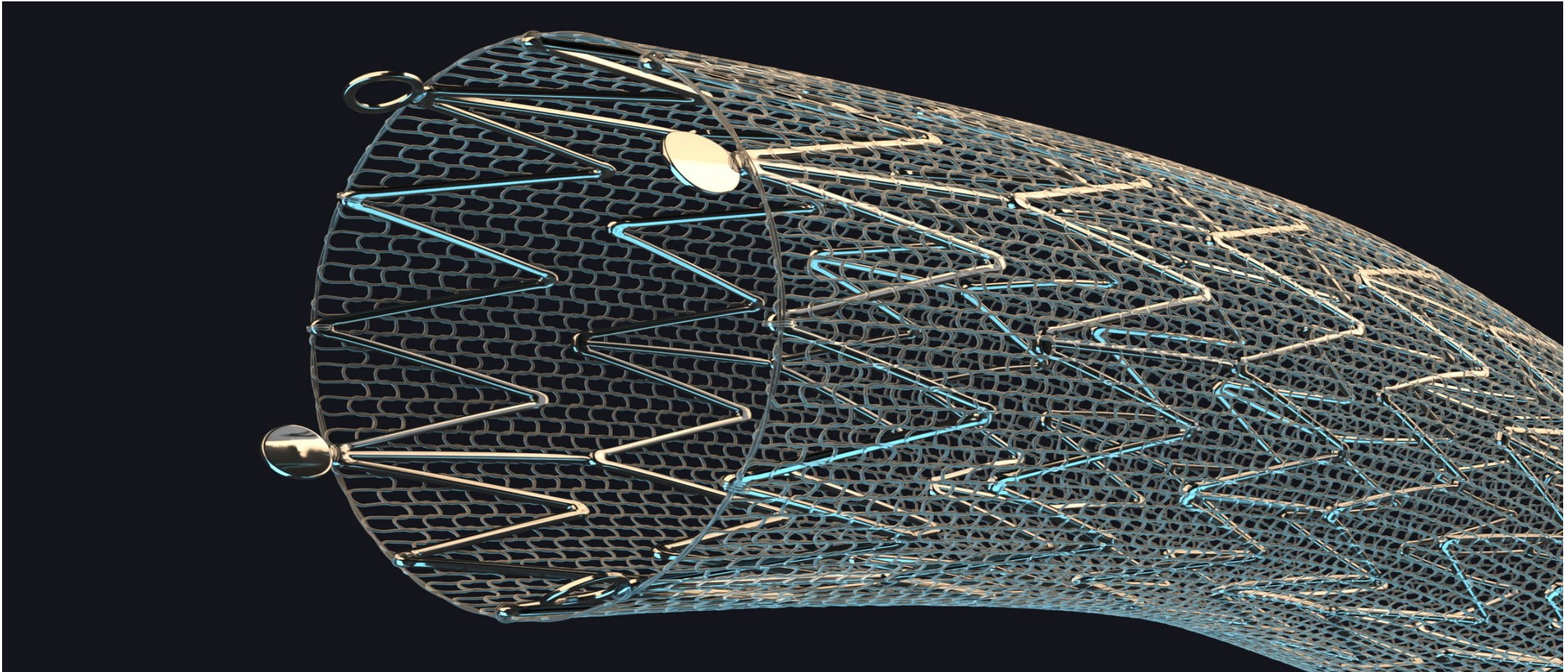


Andrea Tommosoli
Chief Operating Officer

- 20+ years of medical technology experience, NSPR since 2020
- Previous international leadership experience at Integra LifeSciences, St Jude (Abbott)
- BA in Nuclear Engineering from Bologna University, MBA from HEC Paris

Developer of CGuard Prime Carotid Stent Platform

Dedicated to advancing the prevention of stroke and treatment of carotid artery disease



Transforming the Carotid Intervention Market



CGuard Carotid Stent Platform

Proprietary MicroNet™ Technology

Highly differentiated platform for treatment of carotid artery disease and stroke prevention



Unmatched Clinical Outcomes

Short and Long-Term Results

Ten clinical trials completed with >2,000 patients presented or published including US IDE trial



Deep Pipeline and Strategic Roadmap

MicroNet™ technology pipeline; SwitchGuard NPS for TCAR; acute stroke with tandem lesions



CMS Coverage Expanded

Standard Risk and Asymptomatic Reimbursement

Enables stent-first approach to carotid revascularization



Significant Market Potential

Current Treated Market: \$1.3 Billion

(Patients treated with CEA + CAS globally), with significant growth potential



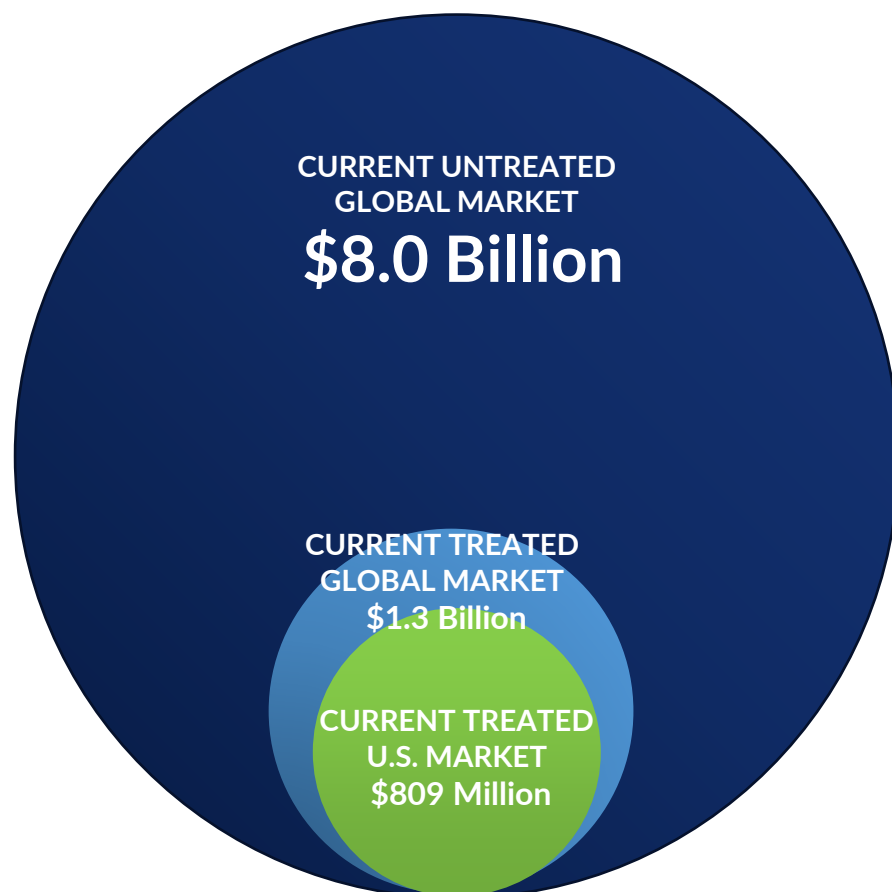
Expanding Commercial Footprint

Double-digit market share in >30 served countries (>30% in Italy)

Over 64,000 stents sold to date

CGuard Prime FDA Approval Anticipated in Q3 2025

Potential \$8B Global Market Opportunity



~2.8 million

People diagnosed with High Grade Carotid Stenosis (HGCS)



~400,000

Global procedures (CEA/CAS/TCAR) globally to treat HGCS ⁽¹⁾



155,000

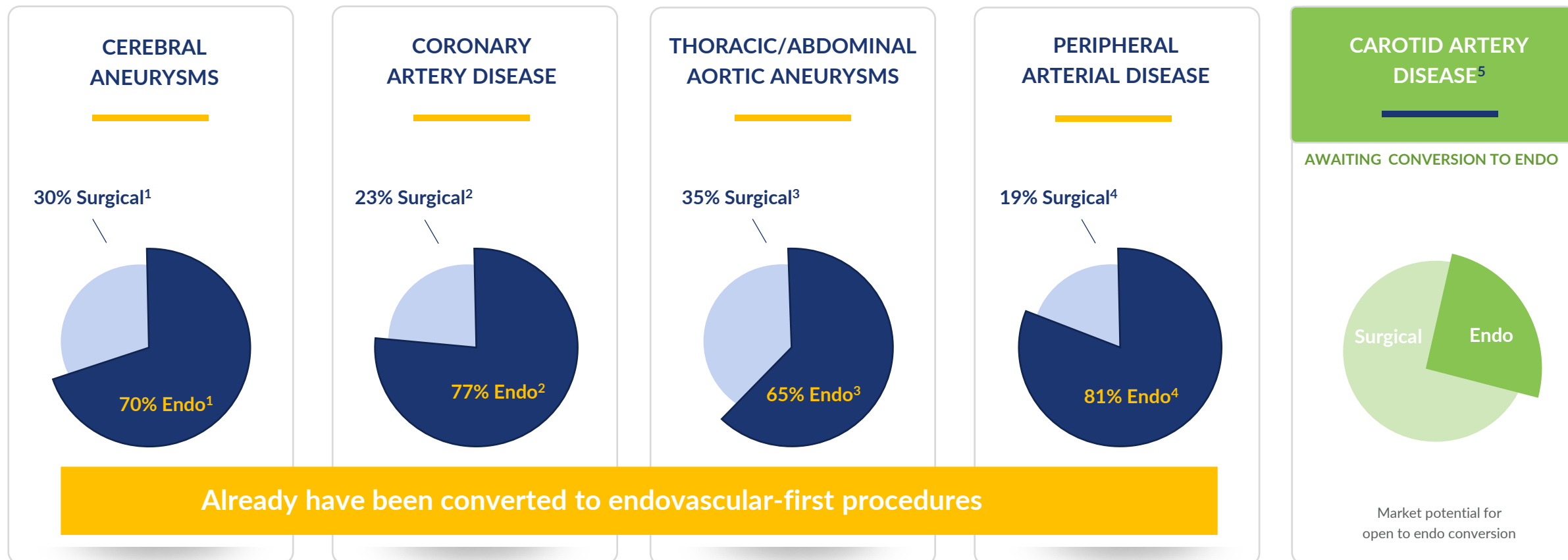
US Procedures Annually

Market Growth Driver

Reimbursement for the treatment of asymptomatic and standard surgical risk patients increases CAS potential, expected to increase screening and diagnosis

Endovascular Revolution Has Arrived

MicroNet™ covered CGuard™ stent platform could become the new gold standard



¹ Bekelis K, Gottlieb DJ, Su Y, et al. Comparison of clipping and coiling in elderly patients with unruptured cerebral aneurysms. J Neurosurg. 2017;126(3):811-818

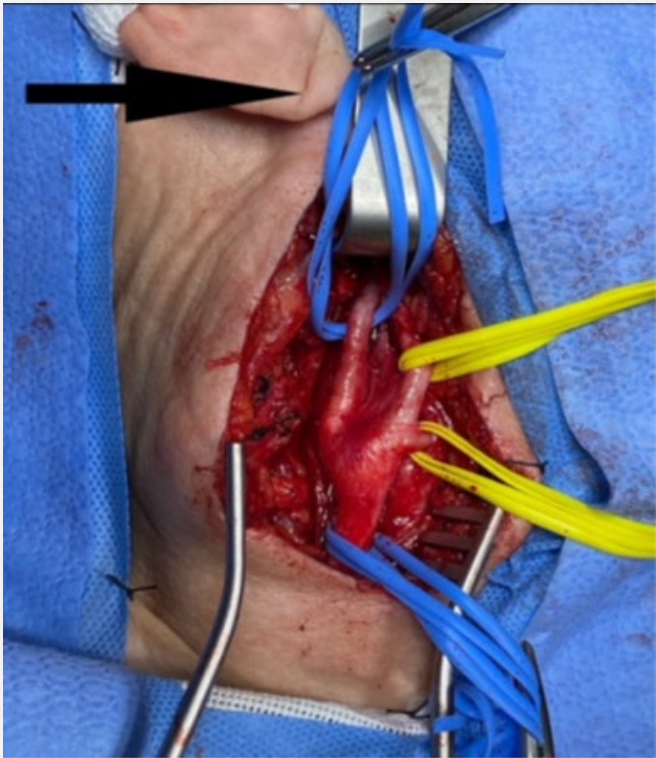
² Culler SD, Kugelmass AD, Brown PP, et al. Trends in Coronary Revascularization Procedures Among Medicare Beneficiaries Between 2008 and 2012. Circulation. 2015;131(4):362-70

³ Beck AW, Sedrakyan A, Mao J, et al. Variations in Abdominal Aortic Aneurysm Care: A Report From the International Consortium of Vascular Registries. Circulation. 2016;134(24):1948-1958

⁴ Guez, D., Hansberry, D. R., Gonsalves, C. F., Eschelman, D. J., Parker, L., Rao, V. M., & Levin, D. C. Recent Trends in Endovascular and Surgical Treatment of Peripheral Arterial Disease in the Medicare Population. AJR Am J Roentgenol. 2020 May;214(5):962-966.

⁵ Procedures For Selected Nations, 2017 - 2025 presented to InspireMD, Inc. by Health Research International Personal Medical Systems, Inc. Sept. 13, 2021

A Picture is Worth a Thousand Words...

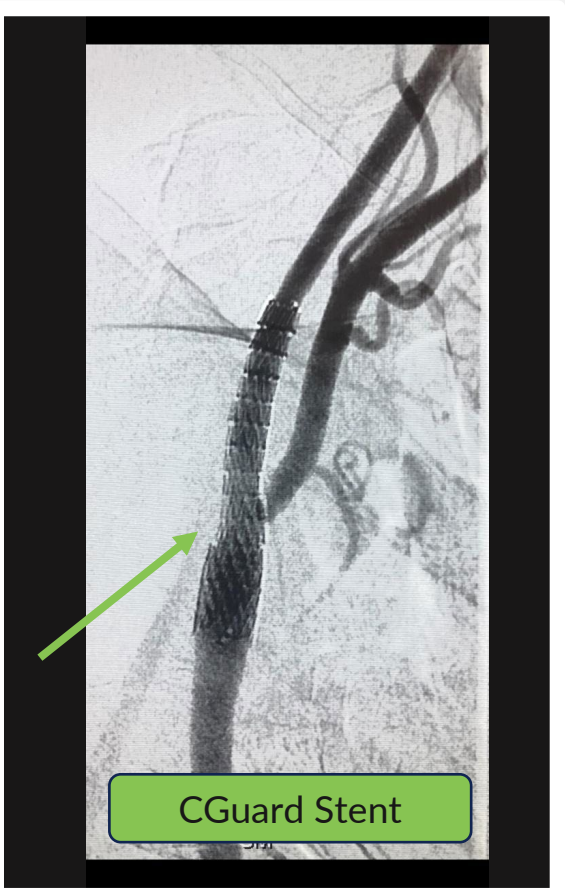


Surgical Endarterectomy

VS



90% occlusion

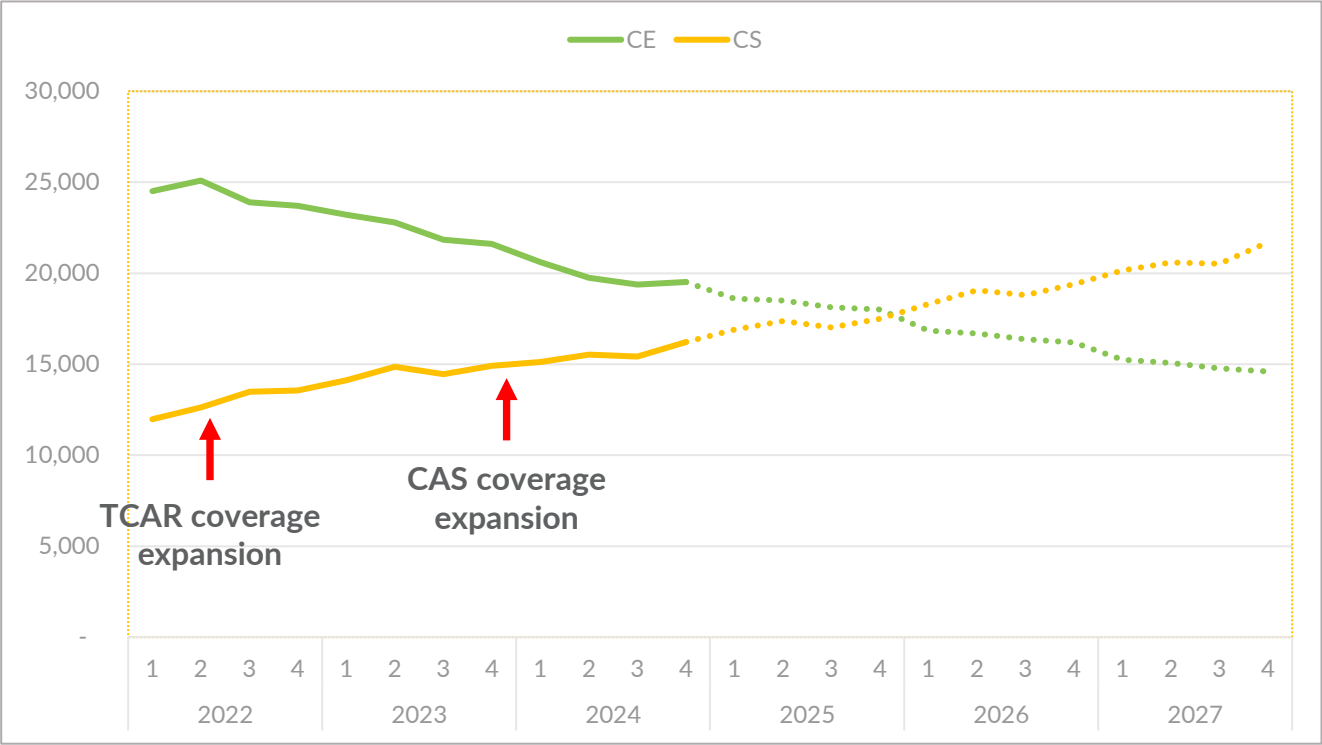


CGuard Stent

Stenting

Carotid Stenting (CAS + TCAR) is on the Rise

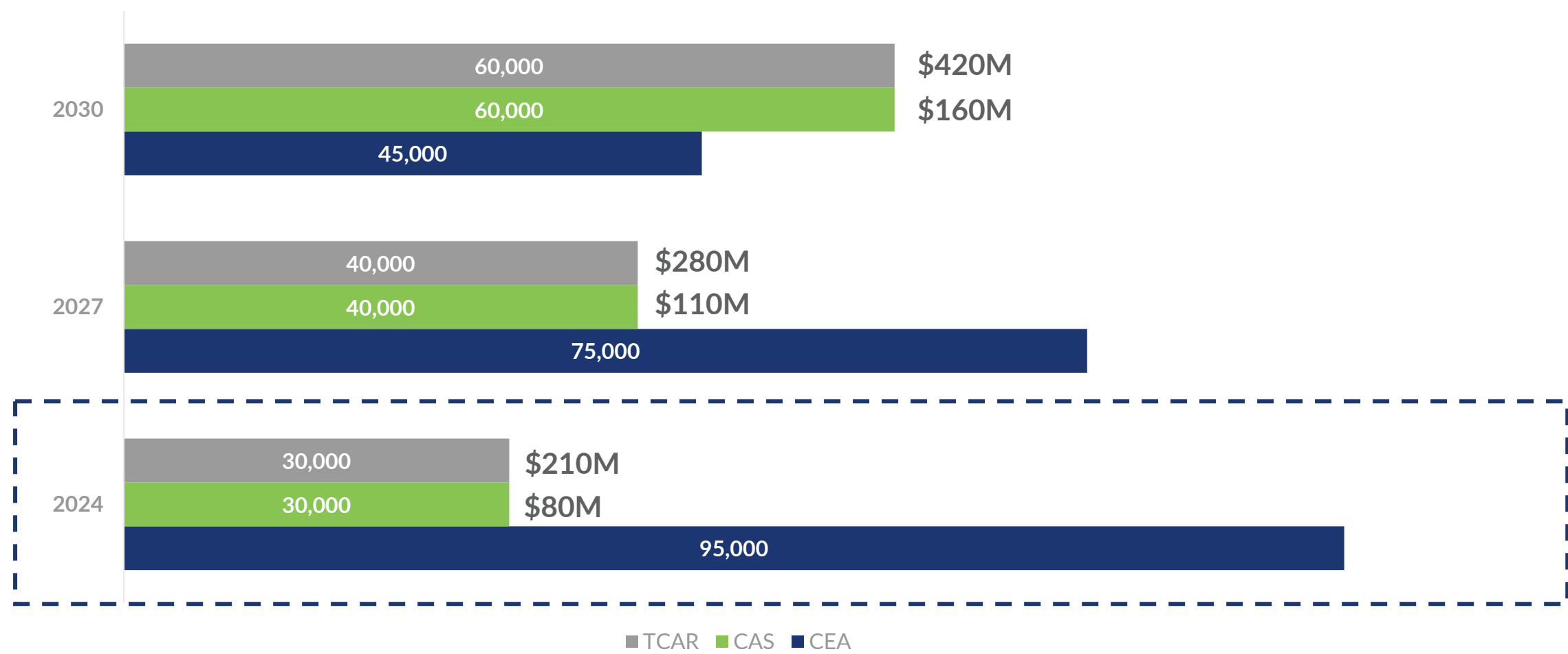
- DRG/CPT data by Facility and HCP
- Trailing 12 Quarters through Q4 2024 (one quarter in arrears)
- ~147K annual carotid intervention claims
 - Represents ~90% of procedures (does not include Kaiser, Gov't/DoD)
 - **10.6% stent (CAS + TCAR) CAGR over prior three years** (TCAR reimbursement expansion 2022, CAS 2023)



| Diagnosis | | 2024 Patient Encounters |
|-----------|----------------------------|-------------------------|
| ● | Carotid Endarterectomy DRG | 79,239 |
| | 3 DRG Codes | |
| ● | Carotid Artery Stent DRG | 62,273 |
| | 3 DRG Codes | |

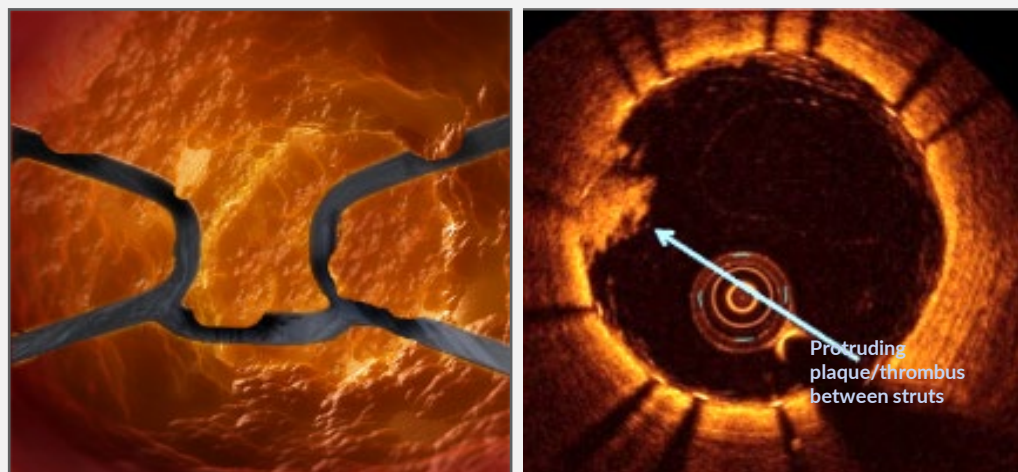
Market Shift

The market has already begun the shift from surgery to stents (procedures and revenue opportunity)



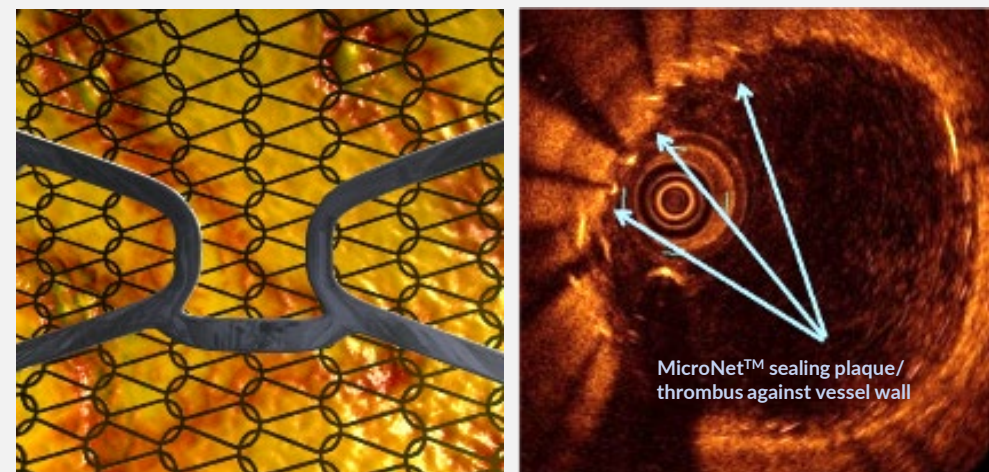
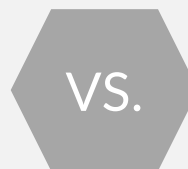
The CGuard Difference: The Impact of MicroNet™ Technology¹

Approximately 2/3 of neurovascular events (stroke, TIA) occur after carotid interventions take place². Prevention depends on the protection from the stent implanted



Conventional Open Cell Stent (1st GEN):

Larger cell sizes allow increased plaque protrusion risk



CGuard Stent System (2nd GEN):

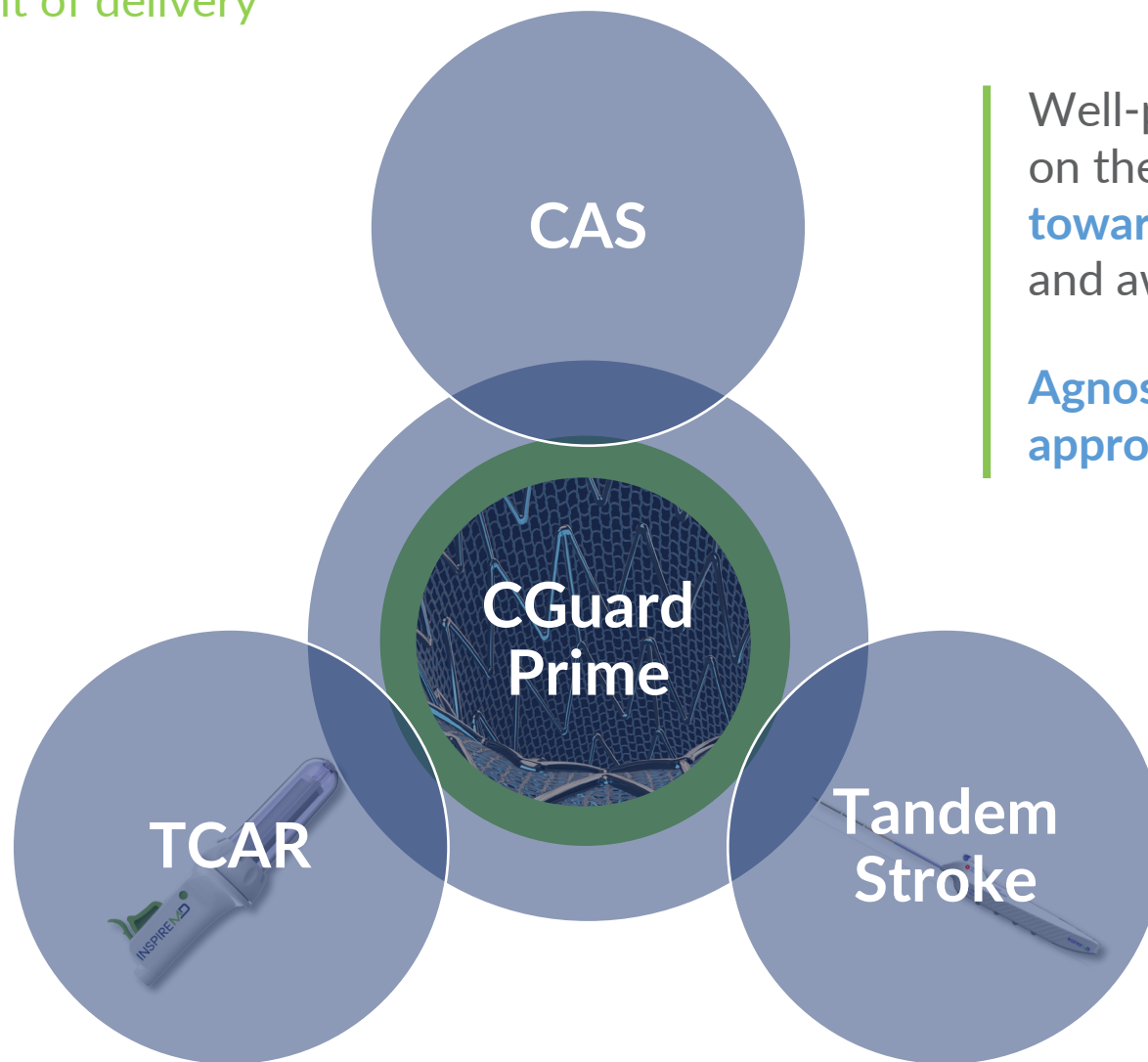
Stents are covered in MicroNet to minimize plaque prolapse

MicroNet: Advanced Protection Technology

MicroNet captures and locks thrombus & plaque materials against the arterial wall, deterring debris from entering the bloodstream by acting as a mechanical barrier to prevent plaque prolapse

Long-Term Stent Performance is the Cornerstone of Our Focus

Benefits are independent of delivery



Well-positioned to capitalize on the ongoing **paradigm shift toward a “stent first” approach** and away from surgery

Agnostic to stent delivery approach (CAS vs TCAR)

Scientific Advisory Board (Multidisciplinary KOLs)



Sean Lyden, M.D.
Vascular Surgeon



Chris Metzger, M.D.
Medical Director
Cardiologist



Kenneth Rosenfield, M.D.
Interventional Cardiologist



Adnan H. Siddiqui, M.D., Ph.D.
Professor, Vice Chairman of
the Department of
Neurosurgery



Unmatched Foundational Data and Evidence

PMA Trial Design (C-GUARDIANS)

Prospective, multicenter international single-arm clinical trial



Pivotal Study Objective

Evaluate the safety and efficacy of the CGuard™ Carotid Stent System in the treatment of carotid artery stenosis



Study Metrics

316 Patients – Enrollment completed (23 months)
24 Centers (19 in the United States and 5 in Europe)



Principal Investigators

Chris Metzger, M.D. (Ballad Health, Kingsport, TN)
Piotr Musialek, M.D. (John Paul II Hospital, Krakow, Poland)



Primary Endpoints

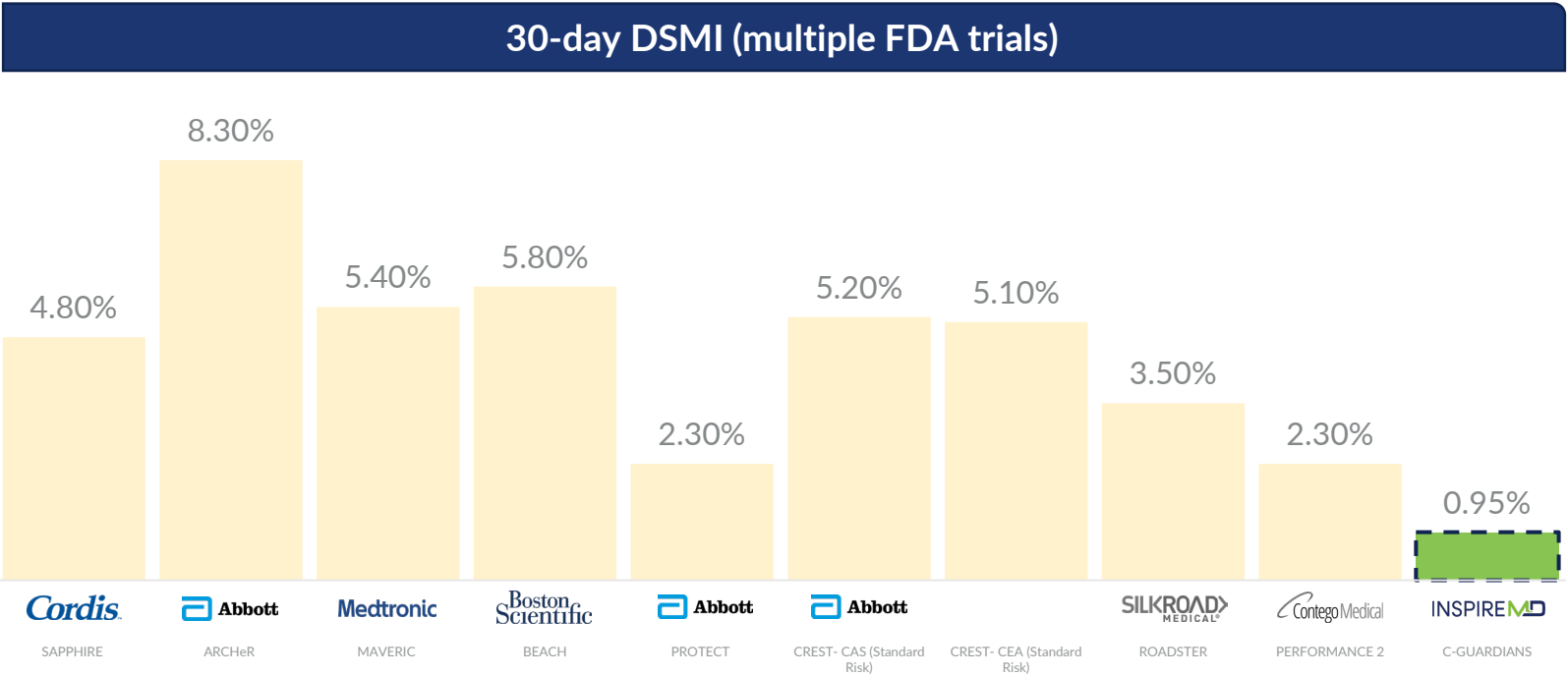
Composite of DSMI through 30 days or ipsilateral stroke 31 - 365 days post-index procedure

Calculation will be the composite of the following: incidence of the following major adverse events: death (all- cause mortality), all stroke, and myocardial infarction (DSMI) through 30-days post-index procedure, based on the clinical events or ipsilateral stroke from 31-365-day follow-up, based on CEC adjudication. The rate will be compared to a performance goal of 11.6% developed from published CAS literature.

C-GUARDIANS: 30-Day Safety Outcomes

30-Day Death/Stroke/MI (DSMI) rates, compared to other carotid trials

| | Intention to Treat | Per Protocol ^{1,2} |
|-------------|--------------------|-----------------------------|
| 30-day DSMI | 0.95% (3) | 0.63% (2) |
| Death | 0.32% (1) | 0.0% (0) |
| Stroke | 0.95% (3) | 0.63% (2) |
| MI | 0.00% (0) | 0.0% (0) |



- Demonstrates the lowest 30-day DSMI rates of any FDA approval/clearance trial for carotid intervention (CAS or TCAR)
- Trial includes independent event adjudication
- 0.95% event rate consistent with 1.03% 30-day event rate from >1350 patients in peer-reviewed, published studies of real-world use, supporting the CGuard Stent as a front-line therapeutic option for carotid revascularization

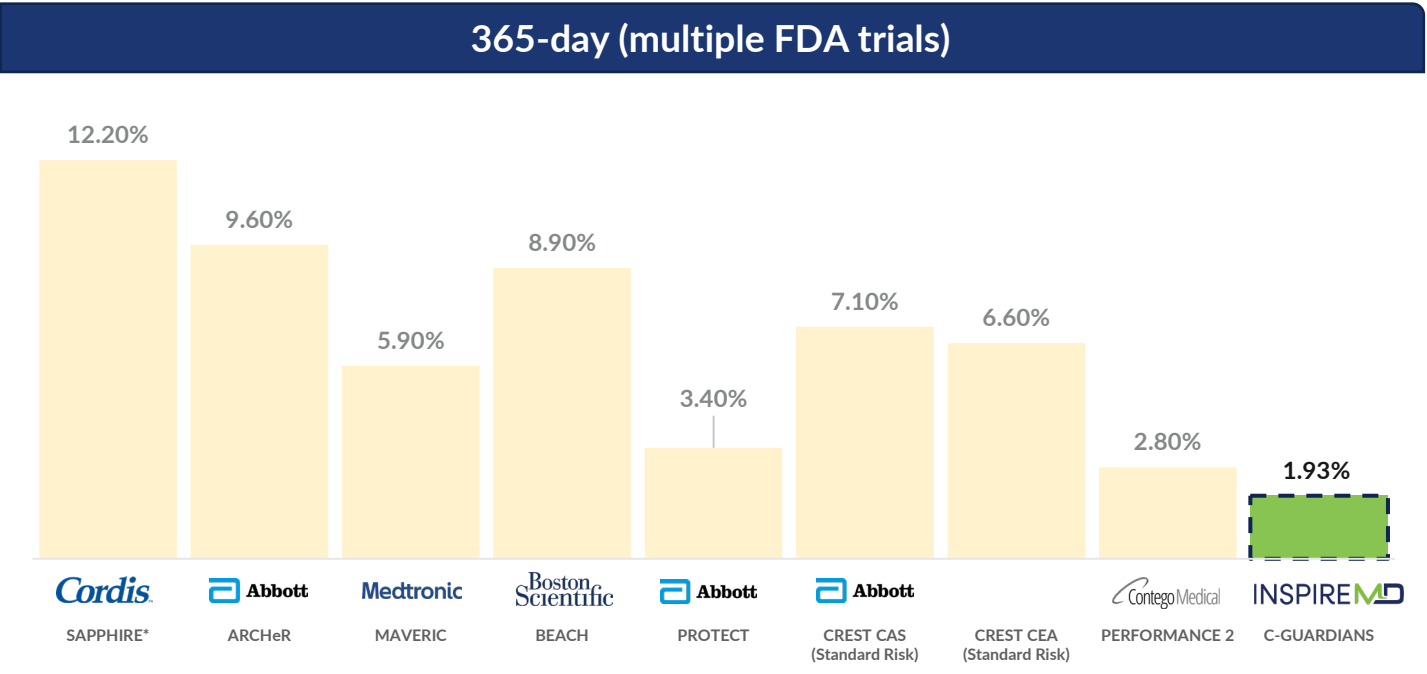
1. Kaplan-Meier estimate for all 1-year endpoints
2. Per Protocol Analysis excludes 15 patients with Major Protocol Deviations

Yadav JS, et al, N Engl J Med 2004;351:1493-501. Gray WA, et al, J Vasc Surg. 2006 Aug;44(2):258-68. Higashida RT, et al, Stroke. 2010 Feb;41(2):e102-9. White CJ, et al, CCI 2006 Apr;67(4):503-12. Iyer SS, et al, J Am Coll Cardiol. 2008 Jan 29;51(4):427-34. Matsumura JS, et al, J Vasc Surg. 2012 Apr;55(4):968-976.e5. SSED Premarket Approval Application (PMA) Number: P040012/SO34. Kwolek CJ, et al, J Vasc Surg. 2015 Nov;62(5):1227-34. W. Gray VIVA 2023

C-GUARDIANS: 1 Year Outcomes

365-Day Death/Stroke/MI (DSMI) rates, compared to other carotid trials

| | CGUARDIANS 365-day | |
|--|--------------------|-----------------------------|
| | Intention to Treat | Per Protocol ^{1,2} |
| Primary Endpoint: 30-day Death, Stroke, or MI + Ipsilateral Stroke between 31 and 365 days | 1.93% (6) | 1.70% (5) |
| Target Lesion Revascularization (TLR) through 365 days. | 0.98% (3) | 1.01% (3) |



- Demonstrates the lowest primary endpoint event rates of any FDA approval/clearance trial for CAS
- Trial includes independent event adjudication
- 1.93% event rate consistent with 1.99% 1-year event rate from >1100 patients in peer-reviewed, published studies of real-world use, supporting the CGuard Stent as a front-line therapeutic option for carotid revascularization

1. Kaplan-Meier estimate for all 1-year endpoints
2. Per Protocol Analysis excludes 15 patients with Major Protocol Deviations
3. SAPHIRE one-year primary endpoint also included Death/MI from 31-365 days

Yadav JS, et al, N Engl J Med 2004;351:1493-501. Gray WA, et al, J Vasc Surg. 2006 Aug;44(2):258-68. Higashida RT, et al, Stroke. 2010 Feb;41(2):e102-9. White CJ, et al, CCI 2006 Apr;67(4):503-12. Iyer SS, et al, J Am Coll Cardiol. 2008 Jan 29;51(4):427-34. Matsumura JS, et al, J Vasc Surg. 2012 Apr;55(4):968-976.e5. SSED Premarket Approval Application (PMA) Number: P040012/SO34. Kwolek CJ, et al, J Vasc Surg. 2015 Nov;62(5):1227-34. Langhof, LINC 2024

OUS Clinical Data Supporting CGuard Periprocedural Safety

CGuard commercially available in Europe since 2015 (CE Mark)

| Study | Year | N | DS 30-Day % (n) | DSMI 30-Day % (n) |
|--------------|------|--------------|------------------|-------------------|
| CARENET | 2015 | 30 | 0.0%(0) | 0.0%(0) |
| PARADIGM | 2016 | 101 | 0.0%(0) | 0.0%(0) |
| CASANA | 2017 | 82 | 1.22%(1) | 1.22%(1) |
| WISSGOTT I | 2017 | 30 | 0.0%(0) | 0.0%(0) |
| IRONGUARD I | 2018 | 200 | 2.50%(5) | 2.50%(5) |
| WISSGOTT II | 2019 | 30 | 0.0%(0) | 0.0%(0) |
| IRONGUARD 2 | 2020 | 733 | 0.5%(4) | 1.09%(8) |
| GREEK Study | 2021 | 103 | 0.0%(0) | 0.0%(0) |
| SIBERIA | 2021 | 50 | 0.0%(0) | 0.0%(0) |
| Total | | 1,359 | 0.80%(11) | 1.03%(14) |

CARMEN Meta-Analysis (112 Studies, 68K Patients)¹

30-day and 12-month event rates by stent type (random-effect model)

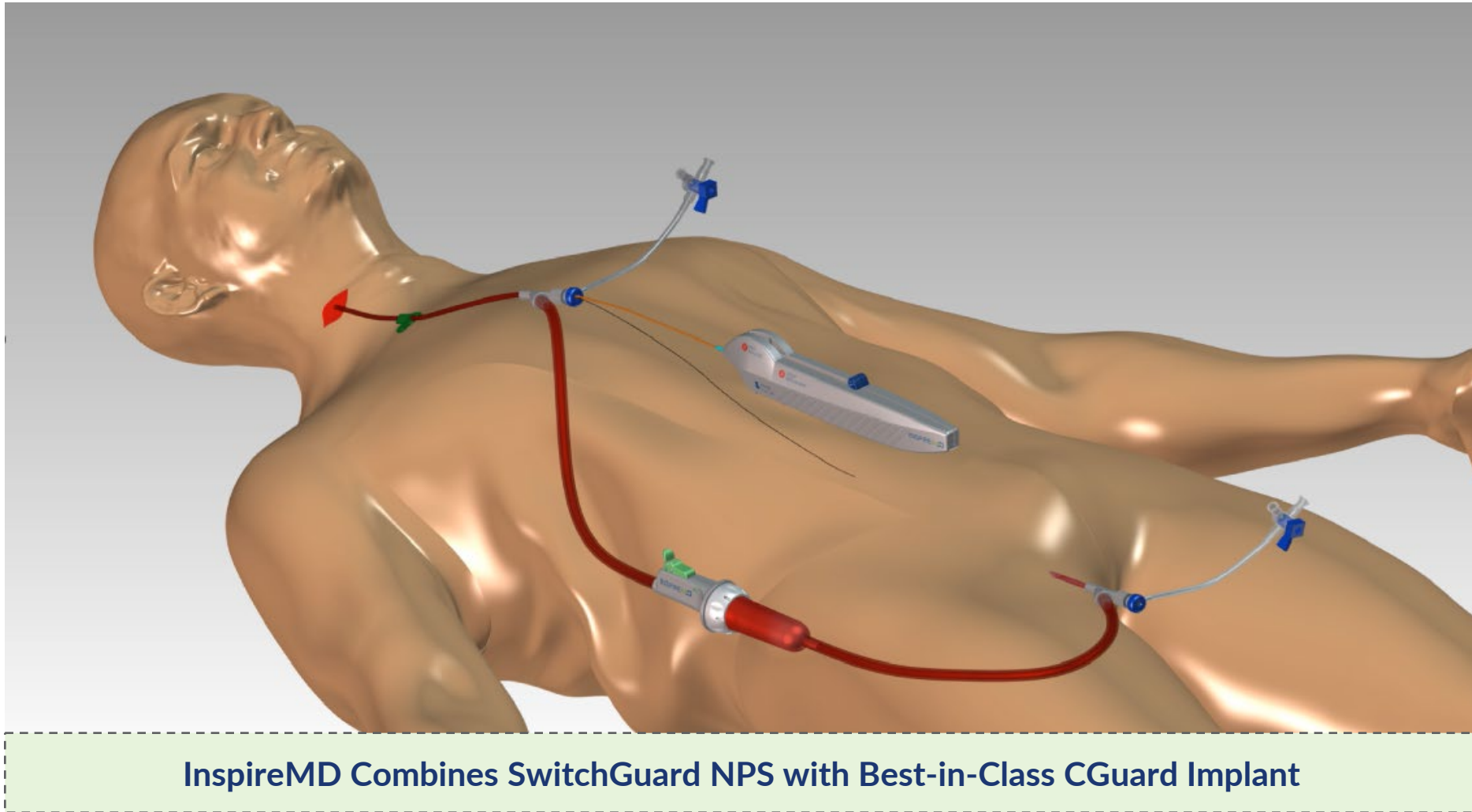
- Improvements from second-generation stents (SGS) relative to first-generation stents (FGS), but important differences exist amongst the SGS
- CGuard's MicroNet **drives improvement both in event reduction** (due to improved scaffolding) and **restenosis reduction** (due to less metal burden)

| Event | FGS | SGS | Terumo RoadSaver/ Casper | Gore (not marketed) | INSPIRE  CGuard |
|---|---------------------|---------------------|-----------------------------|------------------------|---|
| 30-day Stroke [%] (95% CI) | 3.01 (2.63-3.38) | 0.60 (0.28-0.92) | 0.50 (0.0-1.15) | 2.89 (1.03-4.76) | 0.54 (0.17-0.92) |
| 30-day Death / Stroke / MI [%] (95% CI) | 4.11 (3.65-4.56) | 1.30 (0.64-1.96) | 1.33 (0.0-2.66) | 4.82 (2.44-7.2) | 1.08 (0.55-1.60) |
| 12-month Ipsilateral Stroke [%] (95% CI) | 3.51 (2.52-4.50) | 0.7 (0.0-1.47) | 0.26 (0.0-1.27) | 3.1 (1.11-5.1) | 0.38 (0.0-0.9) |
| 12-month Restenosis [%] (95% CI) | 3.97 (0.28-5.14) | 3.38 (1.39-5.37) | 7.16 (4.45-9.86) | 4.83 (2.36-7.29) | 0.34 (0.0-0.82) |
| 12-month Ipsilateral Stroke / Restenosis [%] (95% CI) | 8.15 (6.34-9.93) | 5.12 (2.14-8.10) | 7.86 (5.04-10.68) | 7.93 (4.82-11.04) | 0.73 (0.0-1.44) |

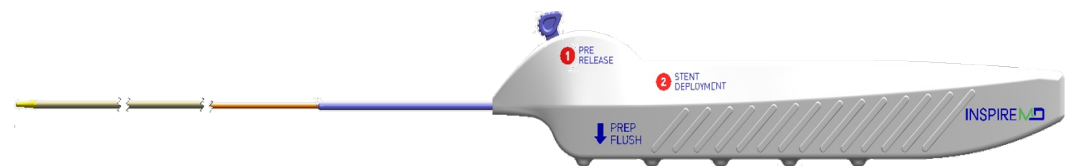


TCAR

Transcarotid Arterial Revascularization (TCAR): Direct Carotid Access with Reverse Flow



SwitchGuard NPS (TCAR)



80CM
CGUARDPRIME



SWITCHGUARD

TCAR Market Opportunity

~3,000 TCAR-trained physicians in the U.S.¹

~30,000 TCAR procedures (~\$210M) performed in the U.S. in 2024, double-digit growth projected^{1,2}

1 Piper-Sandler model, 05/01/24

2 Piper-Sandler model, 05/01/24

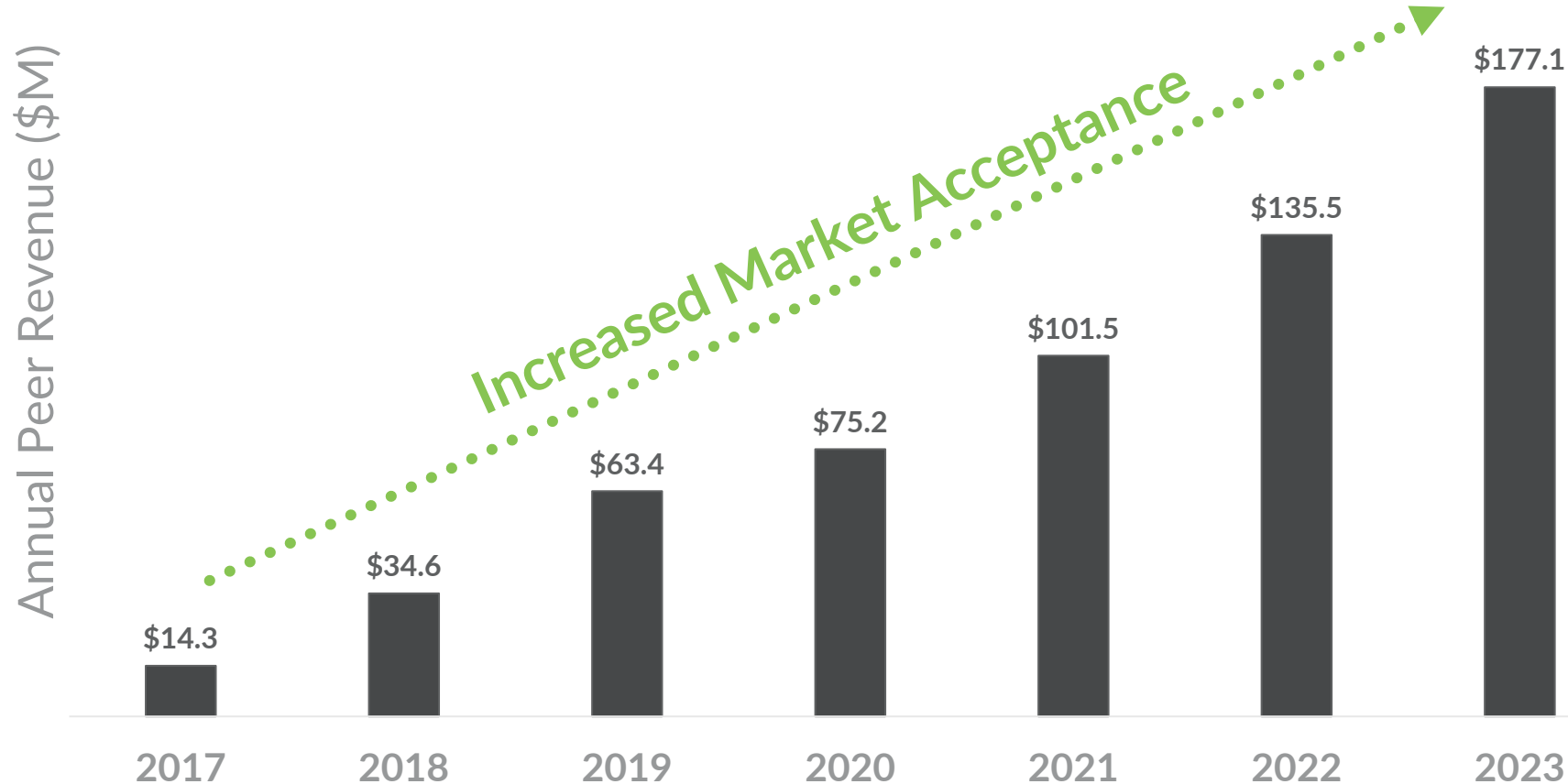


Market Positioning

Strong Tailwinds in the Carotid Space

We are Following A Proven Playbook & Path to Success

Strong Market Traction Demonstrated by Our Peer*,
Whose Portfolio was Limited to TCAR Only



Peer supported over 100K procedures in 2024

InspireMD has sold over 60K stents before reaching the US market

Strong international volumes validate our technology and support thesis for U.S. adoption

*Publicly available revenue data from industry peer – Silk Road Medical – prior to its 2024 acquisition by Boston Scientific



Commercial and Corporate

Roadmap / Milestones

Key Value Drivers



2025

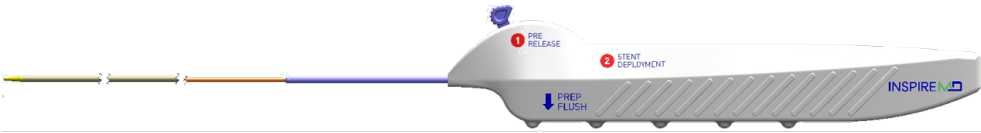
- CGuard Prime CAS Approval
Launch for CAS
- U.S Operational Expansion
Build out of U.S. HQ, Operational and Commercial
- Acute Stroke EFS- Tandem Lesions
- CGuard Prime CE Mark

2026

- CGuard Prime CAS Market Expansion
- CGuard Prime TCAR Approval
CGuard Prime indicated stent for TCAR
- SwitchGuard NPS Clearance / Launch (Full TCAR Tool Kit)
CGuard Prime indicated stent with SwitchGaurd Neuro Protection for TCAR

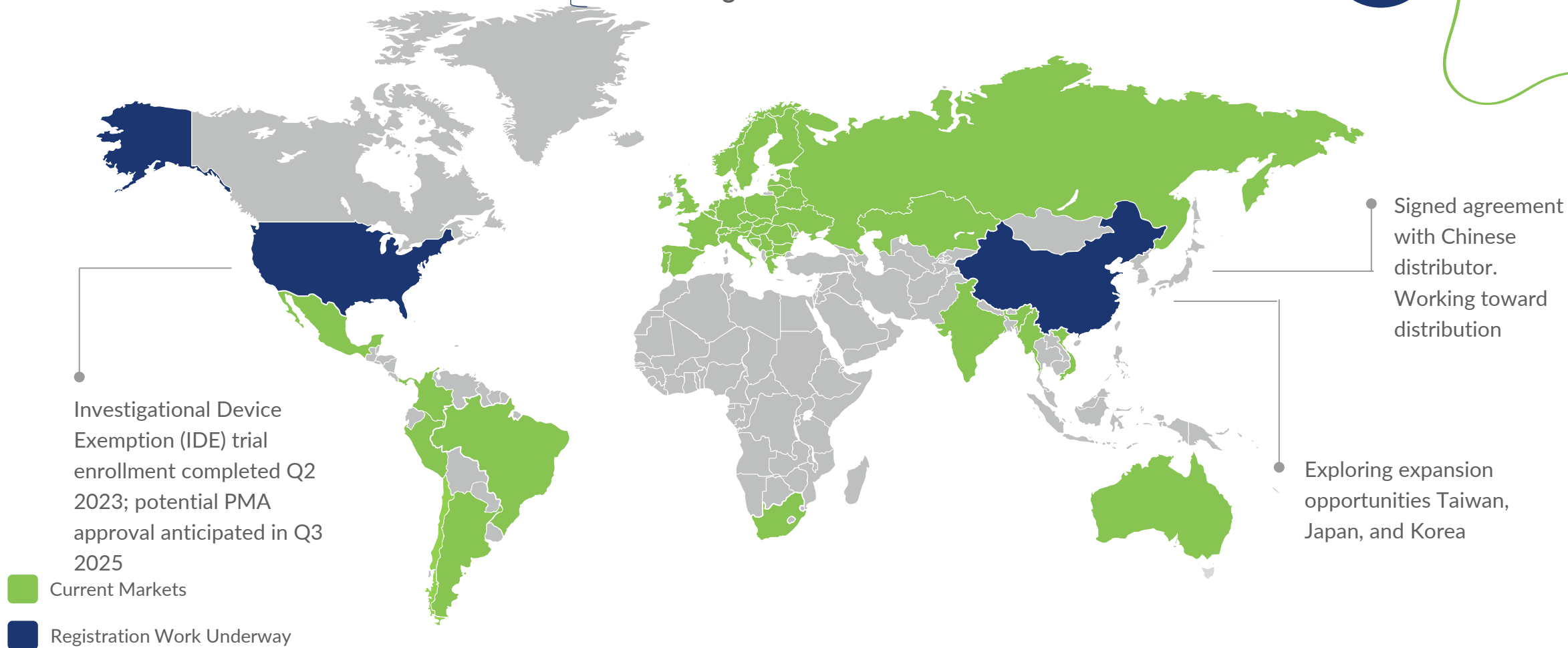
2027

- Further Commercial Expansion in the U.S.
- Global Expansion in Asia
- Potential Portfolio Expansion



Commercial Footprint

- Active selling in more than 30 countries
- Over 60,000 systems sold
- Average CAS Market share of 25%



Transformational May 2023 Financing Up To \$113.6 Million

To advance the company towards potential US approval and launch of CGuard EPS and other value-creating milestones

\$42.2 million upfront funding

\$71.4 million tied to the achievement of four milestones (\$17.9 million each) each expiring upon the earlier of 5 years or 20 trading days following the achievement of the following milestones:

1. **Complete** : Release of primary and secondary end points related to one year follow up study results from the C-Guardians pivotal trial;
2. Receipt of Premarket Approval (PMA) from the FDA for the CGuard Prime Carotid Stent System (135 cm);
3. Receipt of FDA approval for the SwitchGuard trans carotid system and CGuard Prime 80 cm; and
4. Completion of four quarters of commercial sales of the CGuard in the United States.

Strong validation from leading fundamental healthcare investors, with additional participation by select NSPR Board members.

ROSALIND

SOLEUS CAPITAL

NANTAHALA
CAPITAL MANAGEMENT, LLC

VELAN
CAPITAL

MARSHALL WACE

OrbiMed
Healthcare Fund Management

Summary Financials

May 8, 2025

NASDAQ Capital Markets

NSPR

| | |
|---|----------|
| Stock Price | \$2.60 |
| Average 3 Month Volume | 63.6K |
| Shares Outstanding | 30.6M |
| Shares Outstanding with Prefunded Warrants | 55.4M |
| Market Capitalization with Prefunded Warrants | \$144.0M |
| Cash Balance - March 31, 2025 | \$26.1M |
| Debt - March 31, 2025 | \$0M |

INSPIREMD



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