CGuard Carotid Stent Platform for Sustained Embolic Protection

INSPIRE MD

Nasdaq: NSPR

Disclaimers

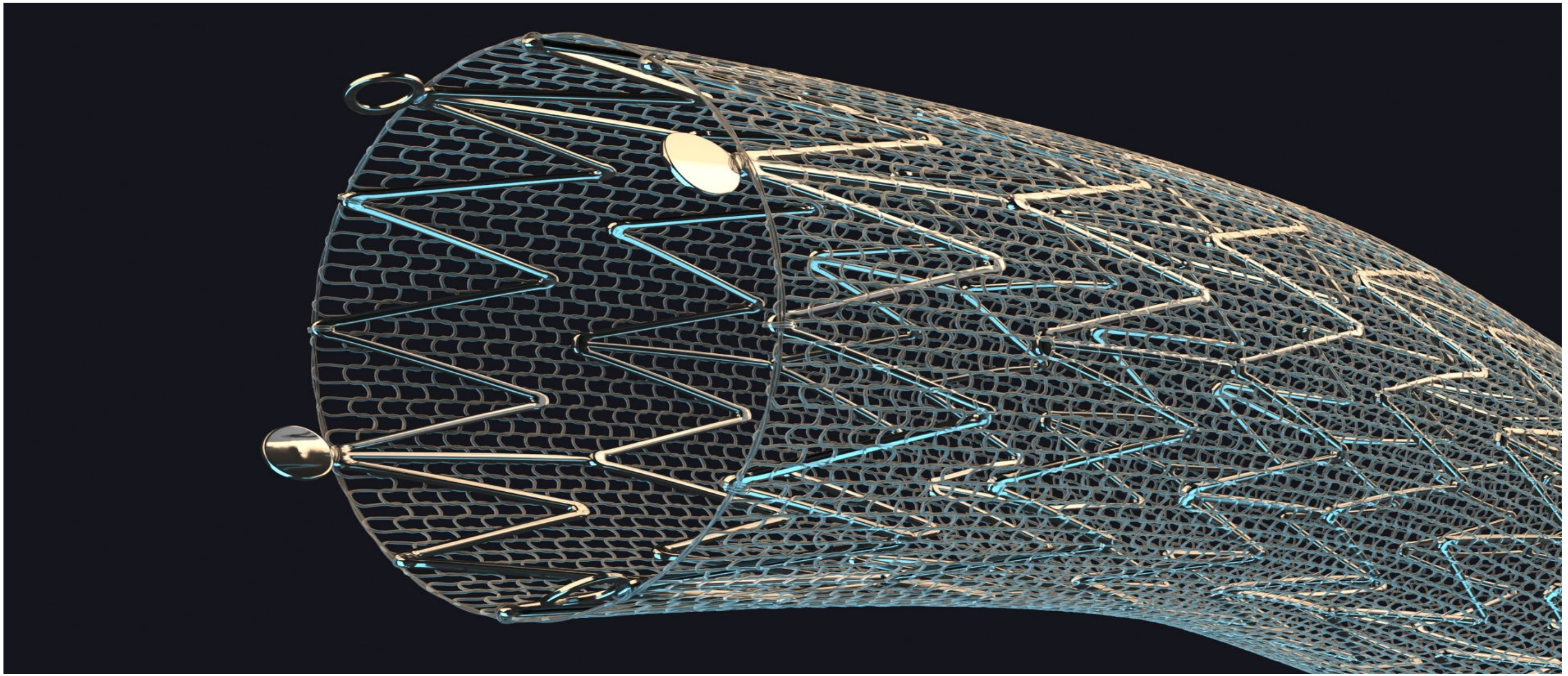
Forward Looking Statement

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.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction.

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 EPS Stent Platform

Proprietary MicroNet™ Technology

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

CMS Coverage Expanded

Standard Risk and Asymptomatic Reimbursement

Enables stent-first approach to carotid revascularization

Unmatched Clinical Outcomes

Short and Long-Term Results

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

Significant Market Potential

Current Treated Market: $1.3 Billion

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

Deep Pipeline and Strategic Roadmap

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

Expanding Commercial Footprint

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

Over **56,000** stents sold to date

CGuard Prime FDA Approval Anticipated in 1H25

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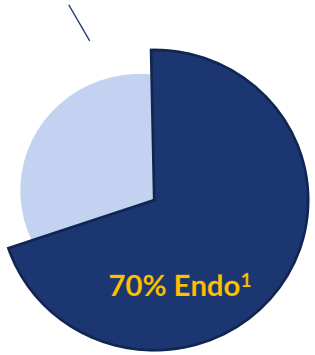
Endovascular Revolution Has Arrived

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

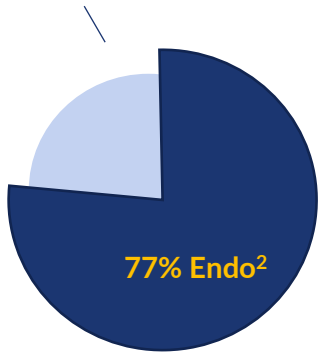
CEREBRAL ANEURYSMS

30% Surgical[1]



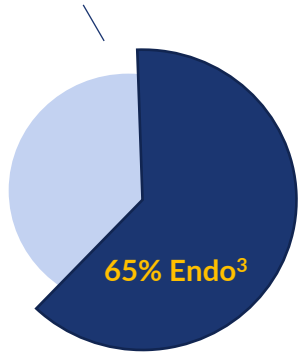
CORONARY ARTERY DISEASE

23% Surgical[2]



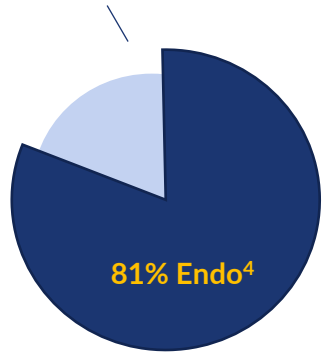
THORACIC/ABDOMINAL AORTIC ANEURYSMS

35% Surgical[3]



PERIPHERAL ARTERIAL DISEASE

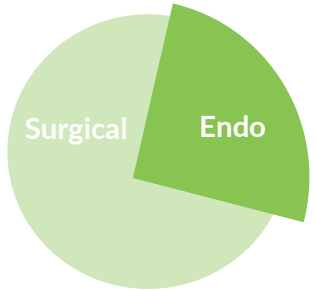
19% Surgical[4]



Already have been converted to endovascular-first procedures

CAROTID ARTERY DISEASE[5]

AWAITING CONVERSION TO ENDO



Market potential for open to endo conversion

[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

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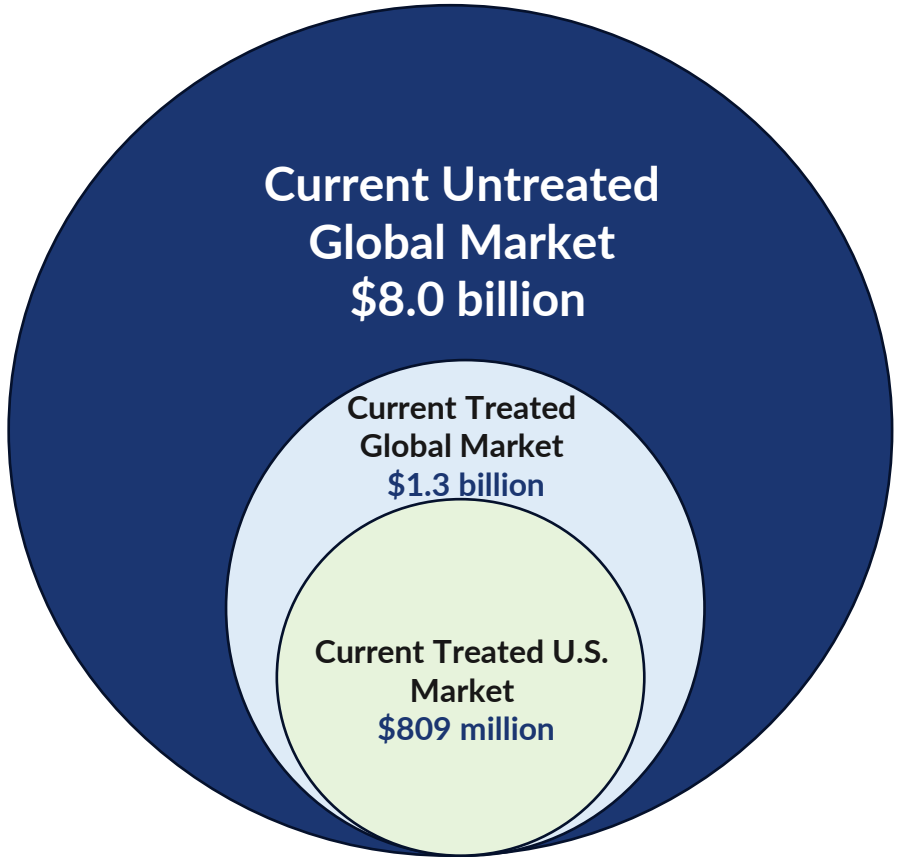
Potential $8B Global Market Opportunity



~2.8 million
People diagnosed with HGCS (Untreated)

407,000
Global procedures (CEA/CAS/TCAR) to treat HGCS (High Grade Carotid Stenosis)[1]

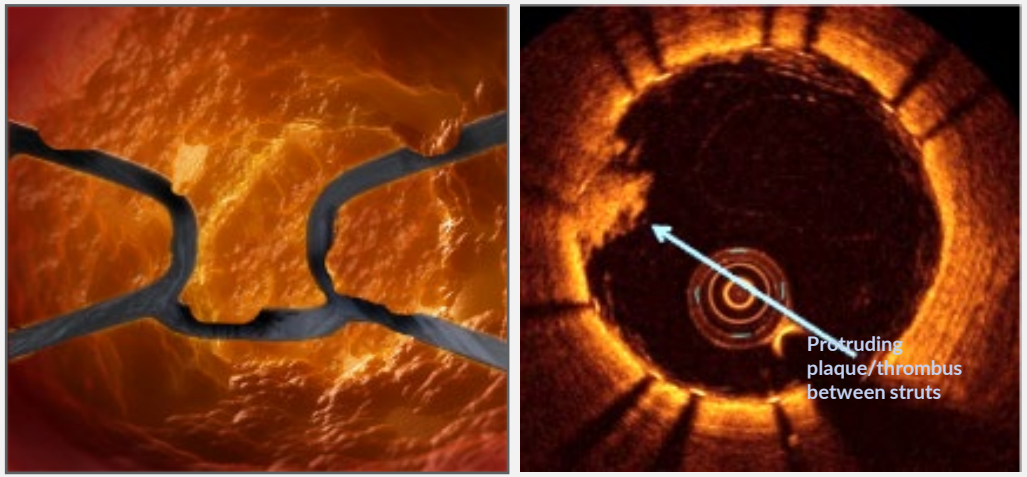
155,000
Procedures to treat HGCS

Market Growth Driver
Standard Risk and asymptomatic reimbursement (US) increases CAS potential, expected to increase screening and diagnosis

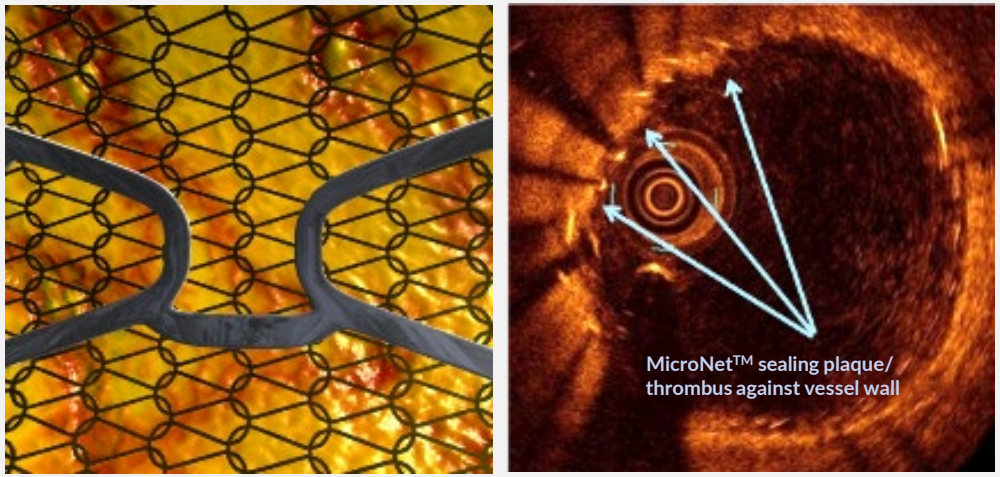
1. 2021 Health Research International Market Report; internal estimates

The CGuard Difference: The Impact of MicroNet™ Technology[1]

Approximately 2/3 of neurovascular events (stroke, TIA) occur after the carotid surgery procedure takes place[2]. Prevention depends on protection



VS.



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

[1,2] Tomoyuki Umemoto, MD. Optical coherence tomography assessment of new generation mesh-covered stents after carotid stenting. Eurointerventional 2017;1348-1355 (published online)

Image: Prof. Valdés Chávarri

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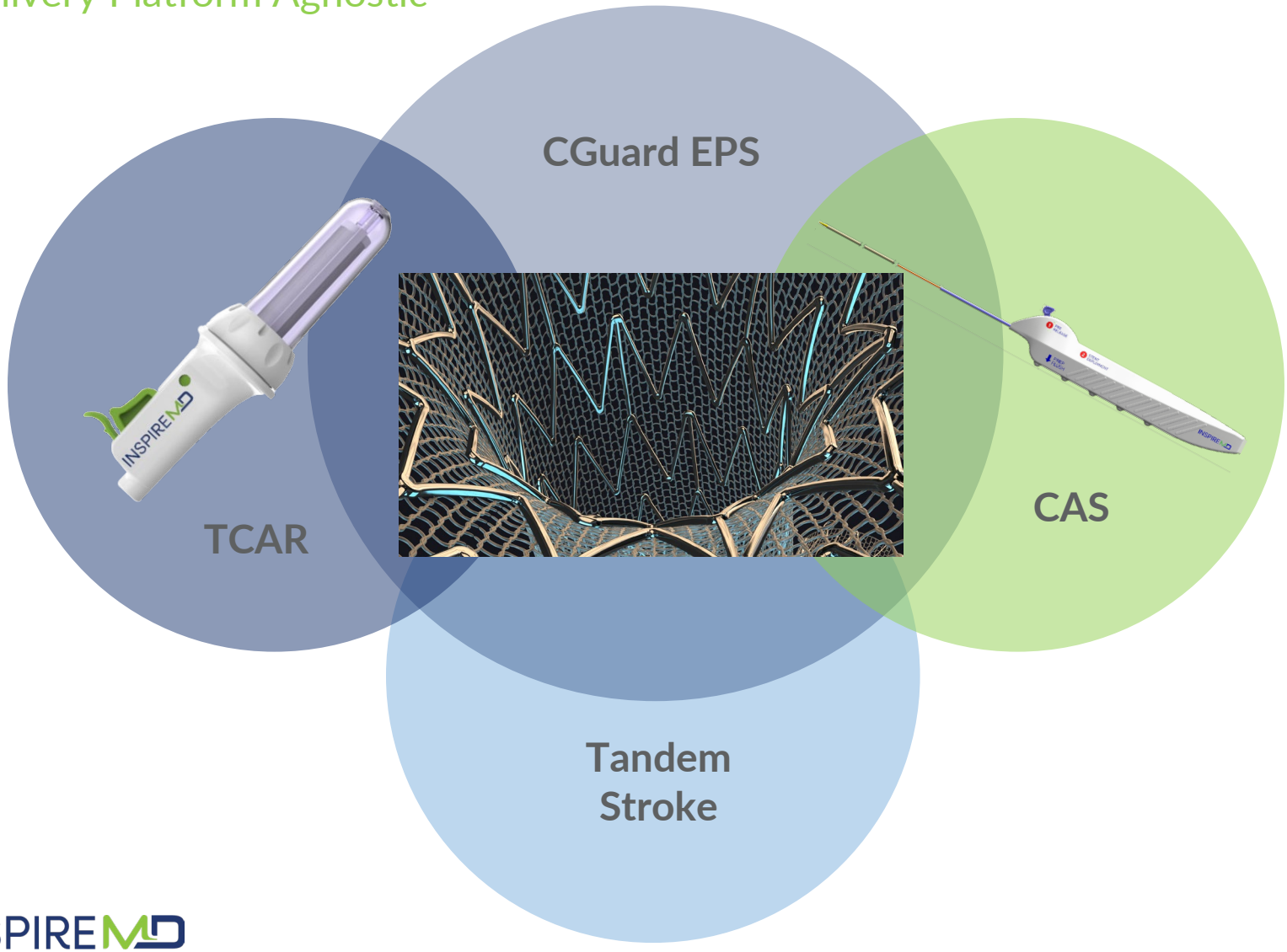
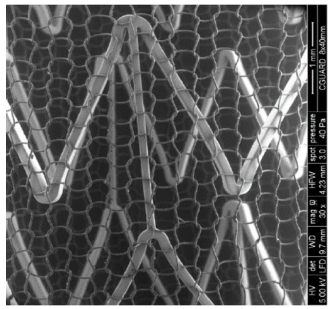
Long-Term Stent Performance is the Cornerstone of Our Focus

Delivery Platform Agnostic

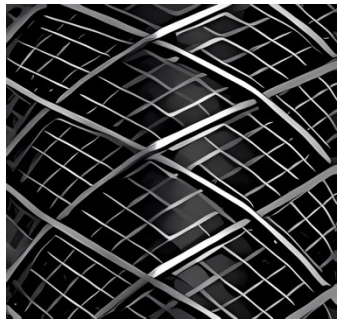


- ✓ Well-positioned to capitalize on the ongoing **paradigm shift toward a "stent first" approach** and away from surgery
- ✓ **Agnostic to stent delivery approach** (TCAR vs. CAS)

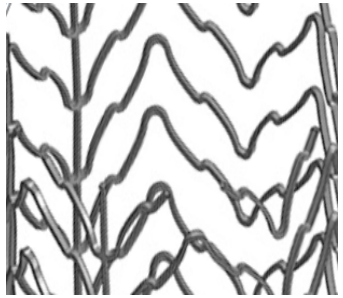
All Stents Are Not Created Equal- Varying Cell Sizes Impact Vessel Wall Coverage



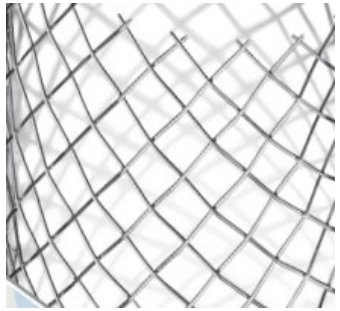
CGuard™



RoadSaver™

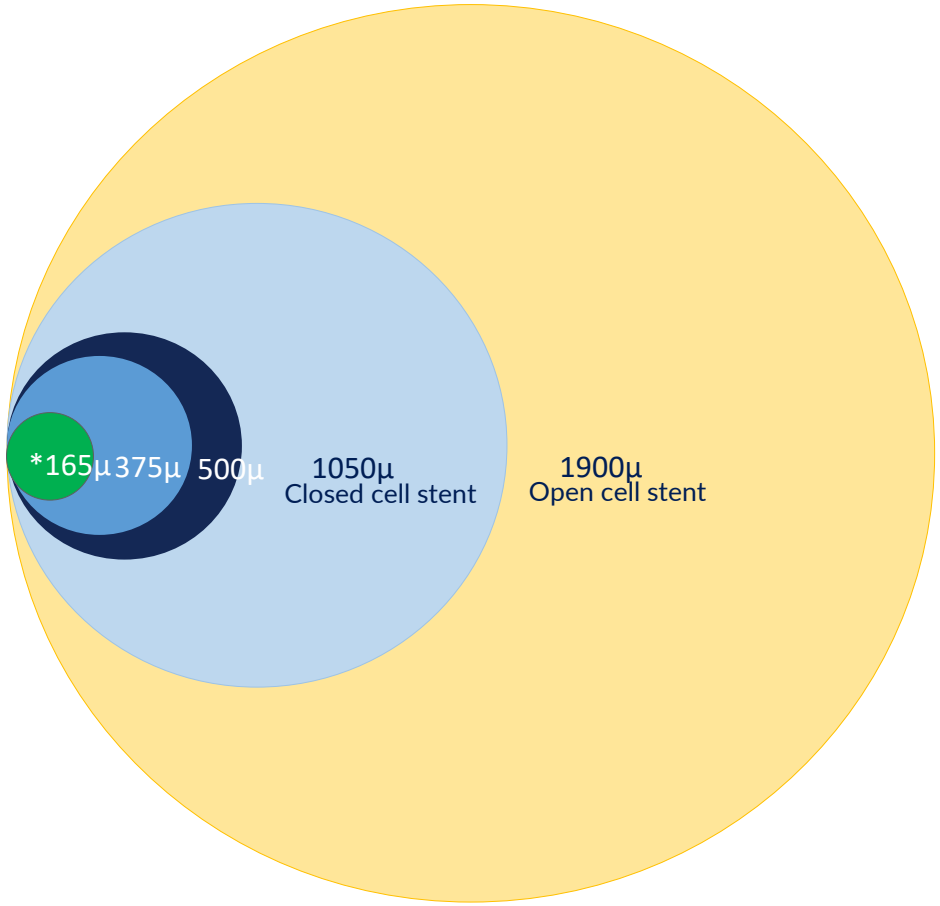


ACCULINK™

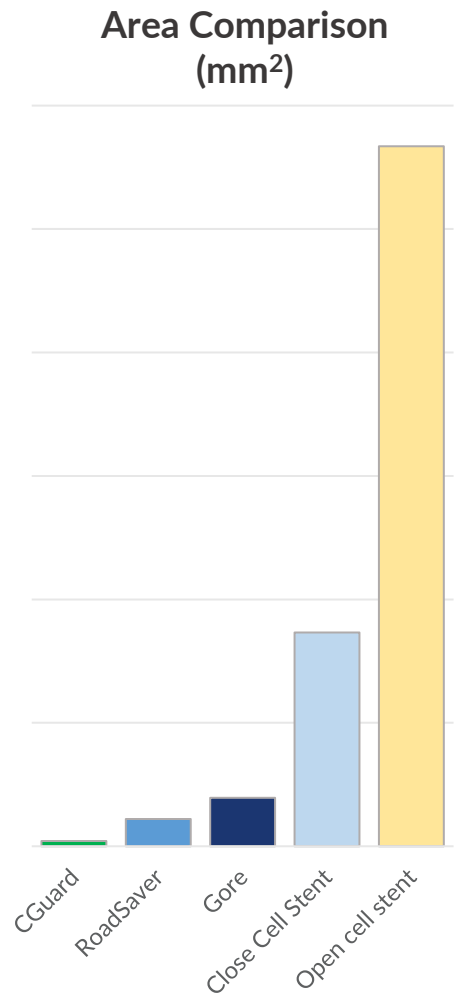


WallStent™

* Bench test results may not necessarily be indicative of clinical performance.
Stent images approximately at scale but not exact



* *Average in lesion at expanded state*



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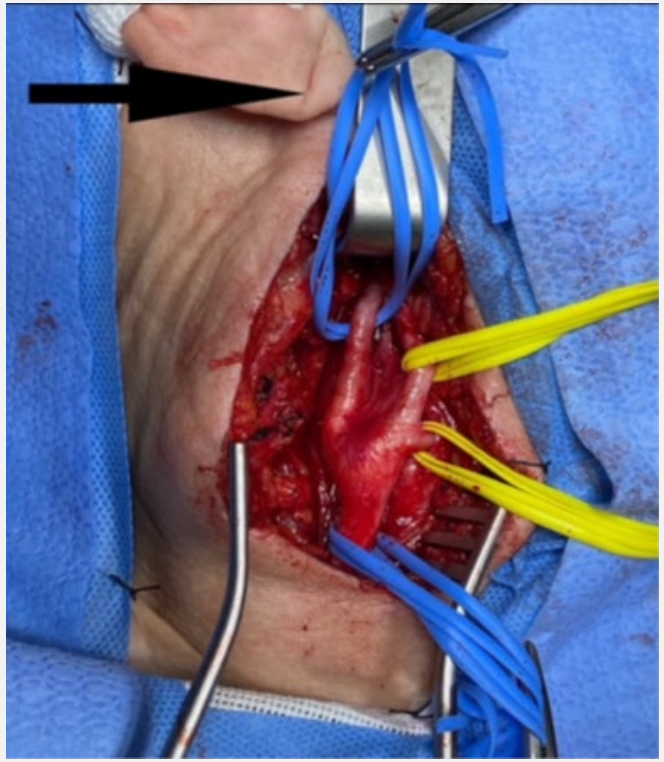
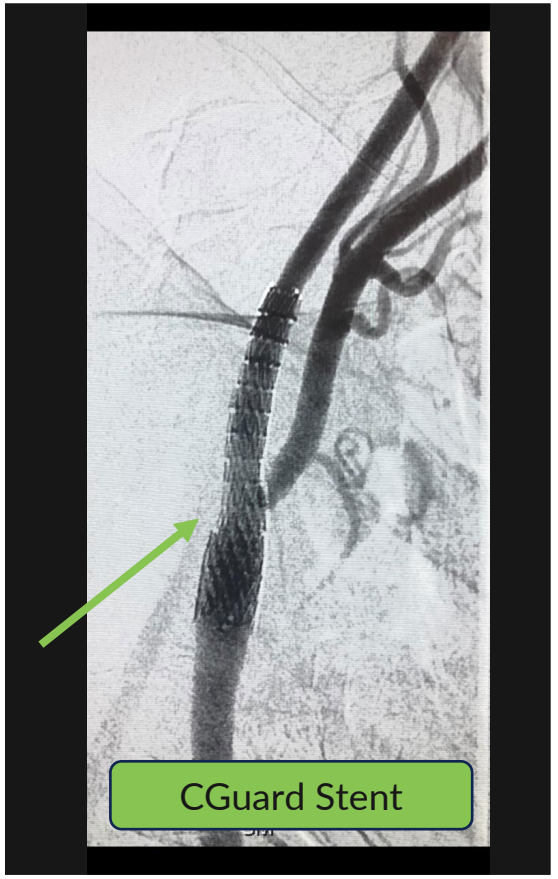
A Picture is Worth a Thousand Words…



Surgical Endarterectomy

VS

90% occlusion



CGuard Stent

Stenting

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

Principal Investigators

Chris Metzger, M.D. (Ballad Health, Kingsport, TN)

Piotr Musialek, M.D. (John Paul II Hospital, Krakow, Poland)

Study Metrics

316 Patients – Enrollment completed (23 months)

24 Centers (19 in the United States and 5 in Europe)

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.

Data

In European independent clinical studies peer-review* published data of **1,104 patients** followed for one year - **1.99%**

* Schofer, J. et al. JACC Cardiovasc. Interv. 2015; Speziale, F. et al. EuroIntervention. 2018; Sirignano, P et al. Cardiovascular Interv. 2020; Musialek et al. EuroIntervention. 2020; Karpenko, A. et al. JACC Cardiovasc. Interv. 2021.

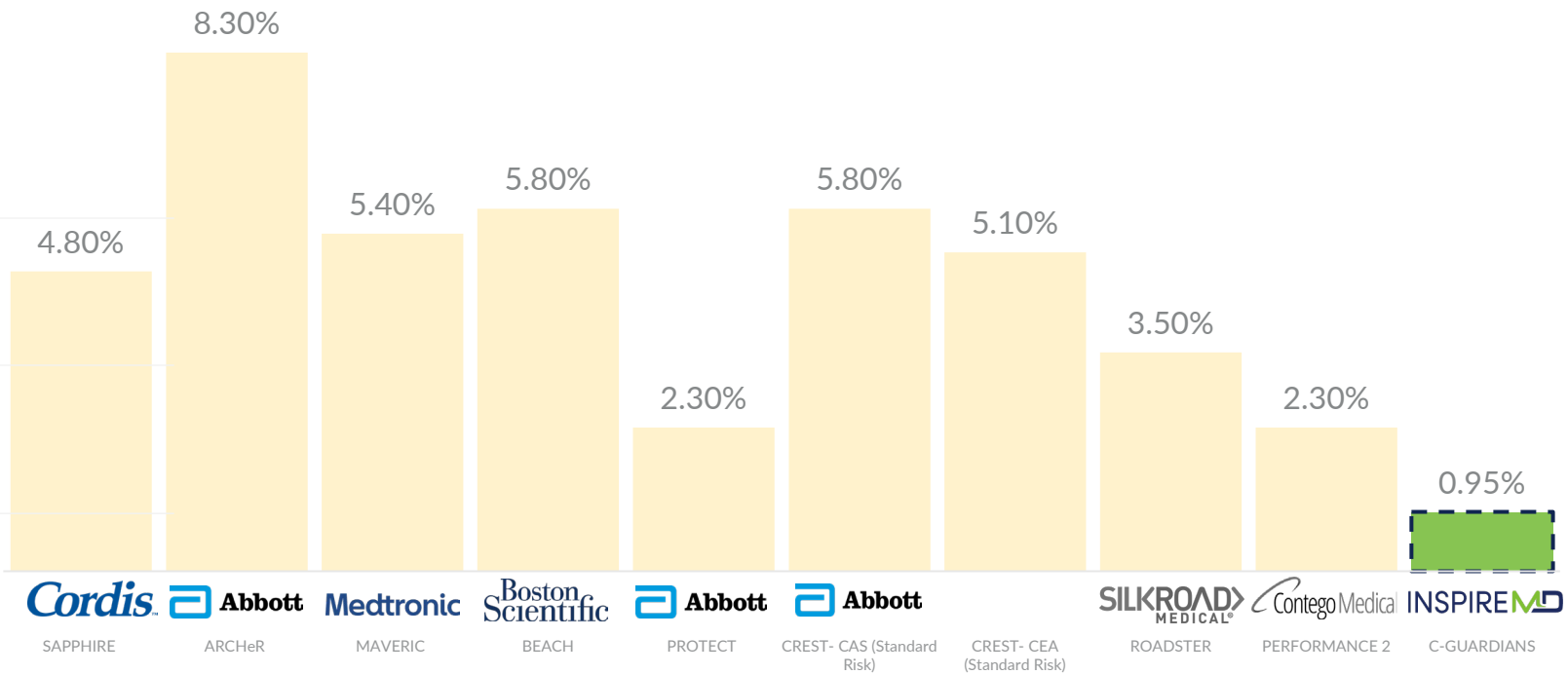
C-GUARDIANS: 30-Day Safety Outcomes

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

CGUARDIANS 30-day outcomes

	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)

30-day DSMI (multiple FDA trials)



- **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**

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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

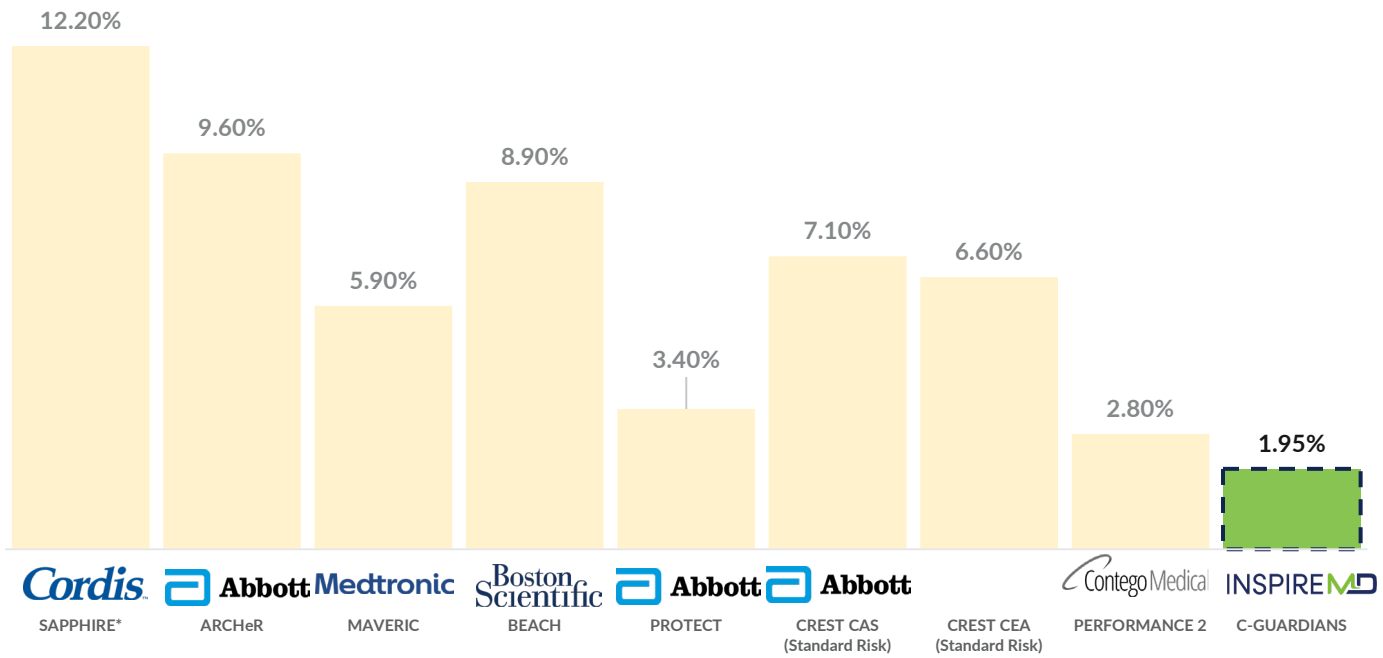
C-GUARDIANS: 1-Year Safety and Effectiveness Outcomes

Composite event rate of 30-Day Death/Stroke/MI (DSMI) or Ipsilateral stroke between days 31-365

CGUARDIANS 1-Year outcomes

	Intention to Treat	Per Protocol[1,2]
Primary Endpoint: 30-day Death, Stroke, or MI + Ipsilateral Stroke between 31 and 365 days	1.95% (6)	1.70% (5)
Target Lesion Revascularization (TLR) through 365 days.	0.98% (3)	1.01% (3)

30-day DSMI or Ipsilateral Stroke to 1-Year



- **Demonstrates the lowest primary endpoint event rates of any FDA approval/clearance trial for CAS**
- **Trial includes independent event adjudication**
- **1.95% 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**

INSPIRE MD

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

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

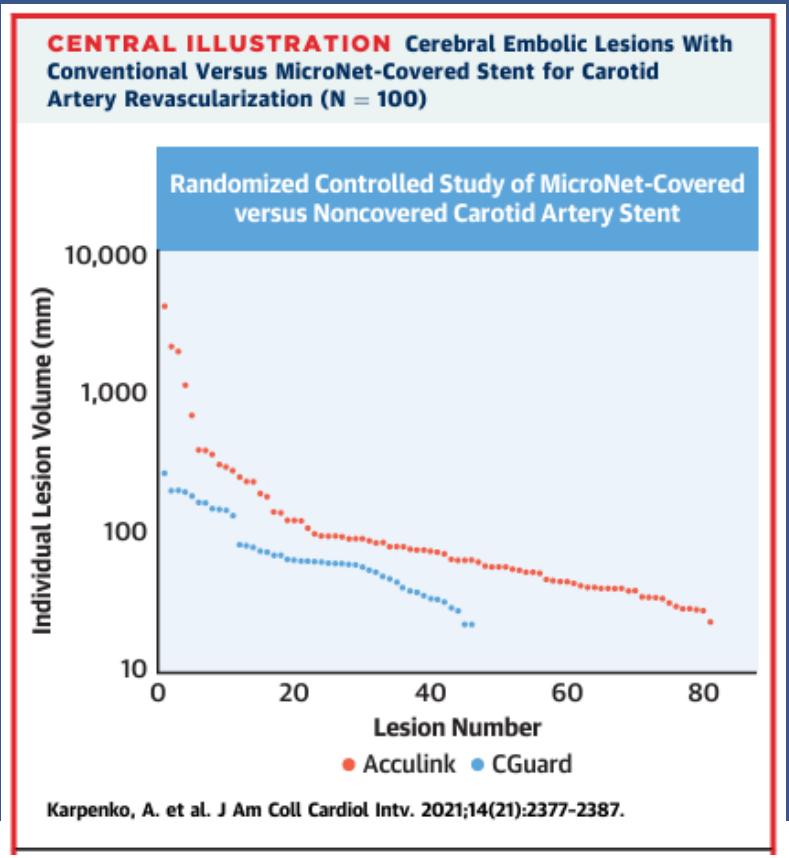
- Improvements from second-generation stents (SGS) relative to first-generation stents (FGS), but important differences exist amongst the SGS
- CGuard's MicroNet **drives improvement both in event reduction** (due to improved scaffolding) and **restenosis reduction** (due to less metal burden)

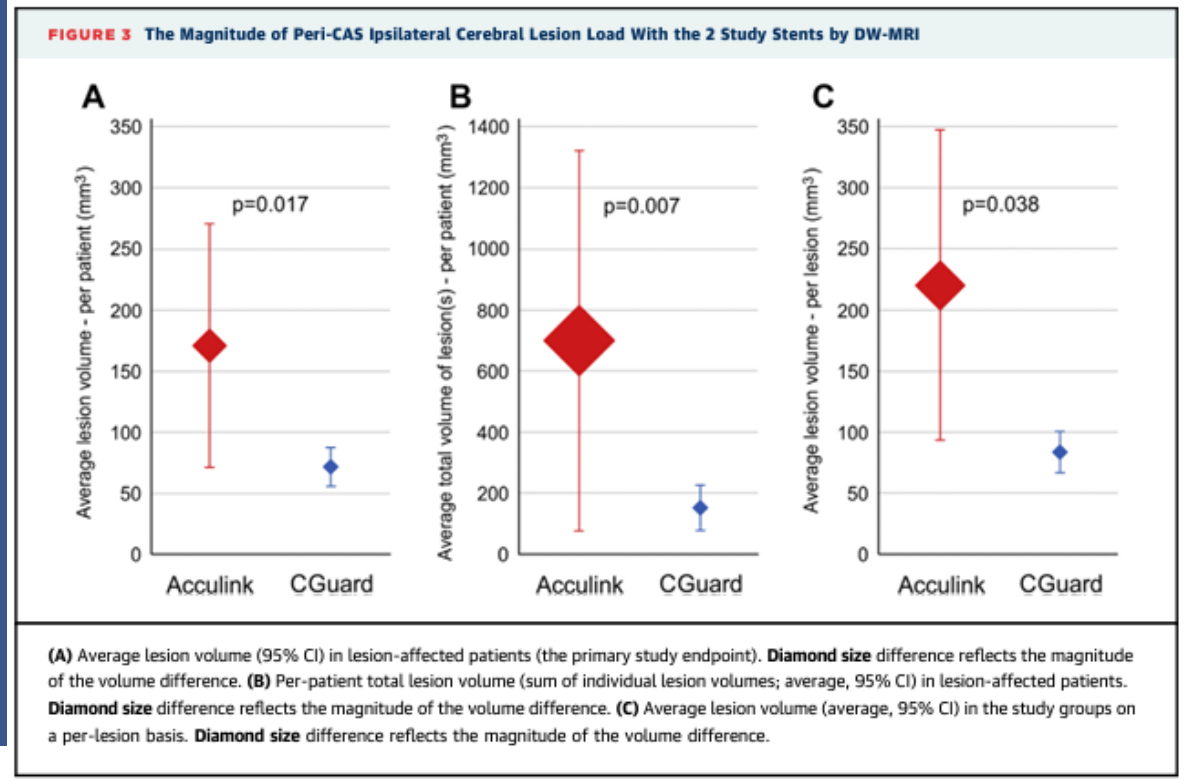
30-day and 12-month event rates by stent type (random-effect model)

Event	FGS	SGS	Terumo RoadSaver/ Casper	Gore (not marketed)	INSPIREMD 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)

1) Clinical Outcomes of Second- versus First-Generation Carotid Stents: A Systematic Review and Meta-Analysis, J. Clin. Med. 2022, 11

Randomized DW-MRI Study Comparing CGuard and Acculink Demonstrates the Neuroprotective Effect of MicroNet™





DW-MRI number of cerebral lesions: 45 with CGuard vs 82 with Acculink (p= 0.03)
DW-MRI total volume of cerebral lesions: 18,212 mm³ with CGuard vs 3,930 mm³ with Acculink

Filters with Macroscopic debris: 4% with CGuard vs 32% with Acculink
(0) strokes with CGuard vs (2) Ipsilateral strokes with Acculink at 30-days

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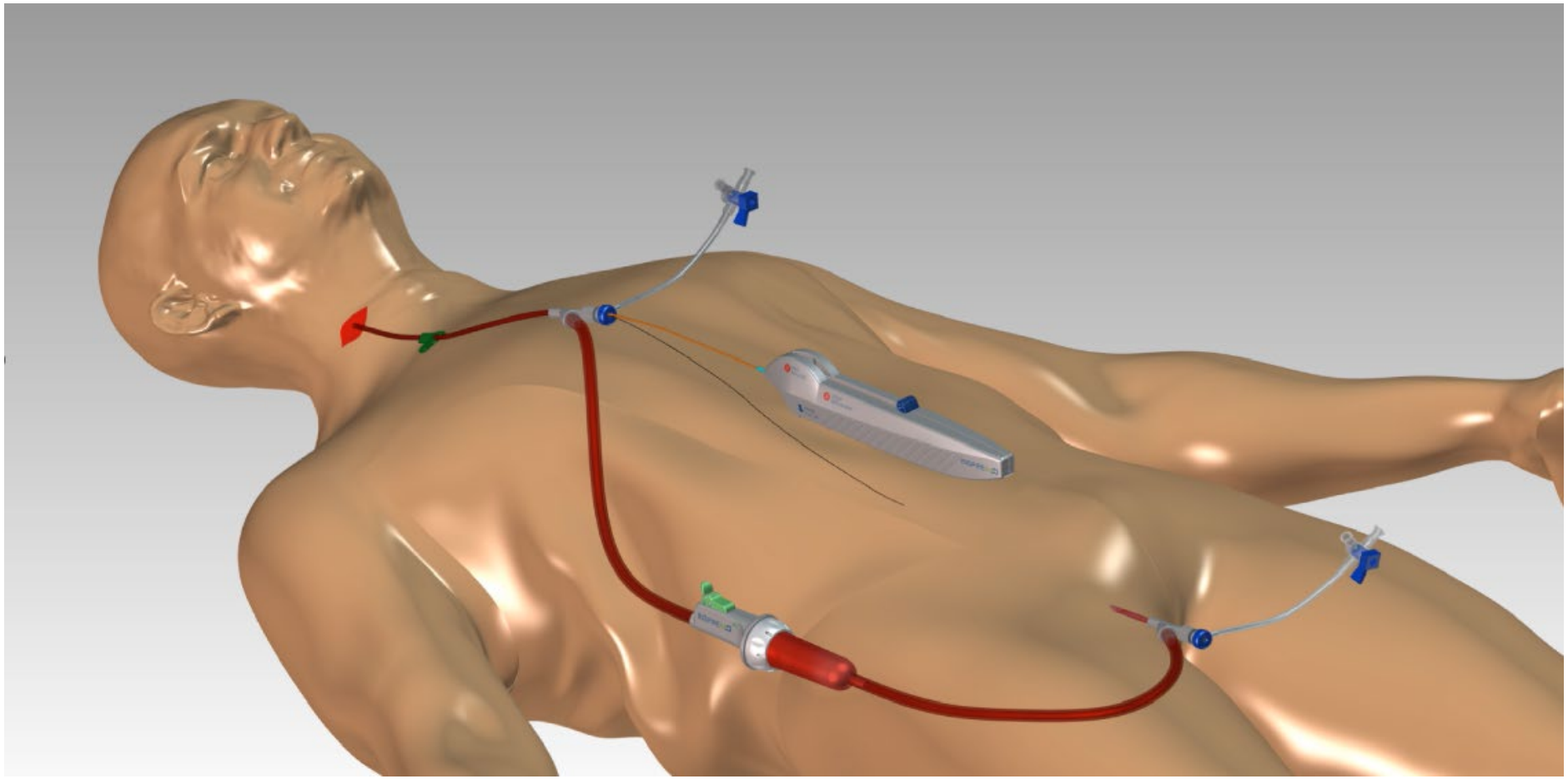
Karpenko A et al. Randomized Controlled Trial of Conventional Versus MicroNet-Covered Stent in Carotid Artery Revascularization, JACC: Cardiovascular Interventions, 2021: 14 (21), 2377-2387

TCAR

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

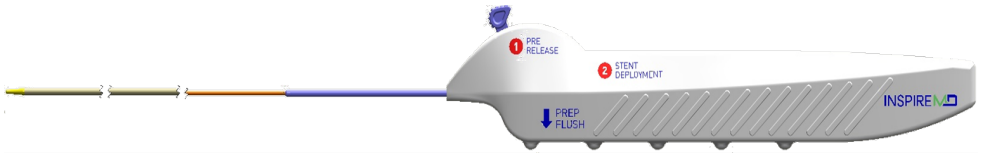


InspireMD combines SwitchGuard NPS with Best-in-Class CGuard Implant

INSPIREMD

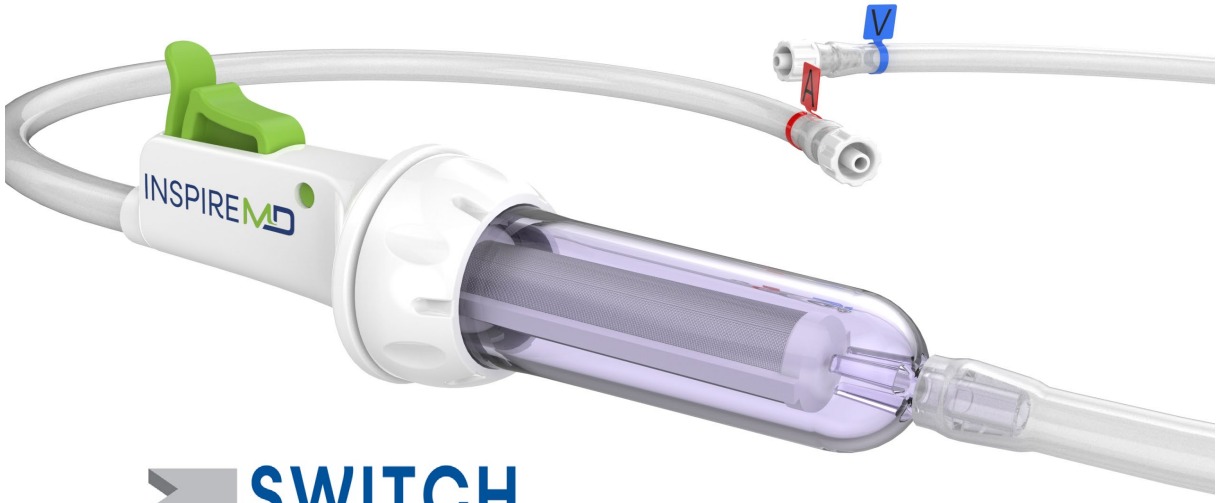
1. Transient flow reversal combined with sustained embolic prevention in transcervical revascularization of symptomatic and highly-emboligenic carotid stenoses for optimized endovascular lumen reconstruction and improved peri- and post-procedural outcomes, Advances in Interventional Cardiology 2020;16, 4 (62):495-506

SwitchGuard NPS (TCAR)



80CM

CGUARD PRIME



SWITCH GUARD

TCAR Market Opportunity

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

~30,000 TCAR procedures **(~$212M)** 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

The Promise of TCAR with CGuard Prime

DW MRI study of recently symptomatic patients- Professor Nacho Leal at LINC 2024

15 recently-symptomatic (<14 days) patients were treated with CGuard using flow-reversal (TCAR)

Transcarotid Flow Reversal and MicroNET Covered Stent for Carotid Revascularization in Recently Symptomatic Patients

A DW MRI-Based Prospective Evaluation

6.7%
Post-procedural DW MRI lesion incidence
Complete resolution in follow-up imaging at 30 days

0%
All stents remained patent with no major adverse events through 30 days (0% TLR, MAE)

(TCAR) combined with a MicroNET stent performed within 14 days of symptom onset could carry a **remarkably low incidence of new ischemic brain infarcts detected by DW MRI studies.”**

…may improve the safety of CAS, and has the potential to produce results **at least comparable to that of carotid endarterectomy”**

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Corporate

Roadmap / Milestones

Key Value Drivers

2025

CGuard Prime PMA Approval

Launch for CAS

U.S 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 80 TCAR Market Expansion

SwitchGuard NPS Launch (Full TCAR Kit)

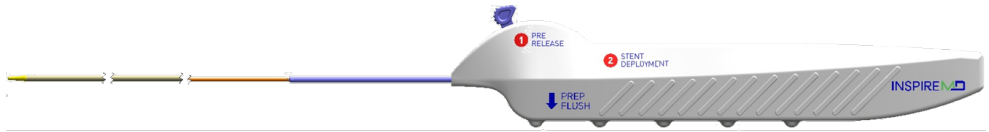
2027

Further Commercial Expansion in the U.S

Global Expansion in Asia

CGuard Prime 80 TCAR Indicated Stent

Launch for TCAR



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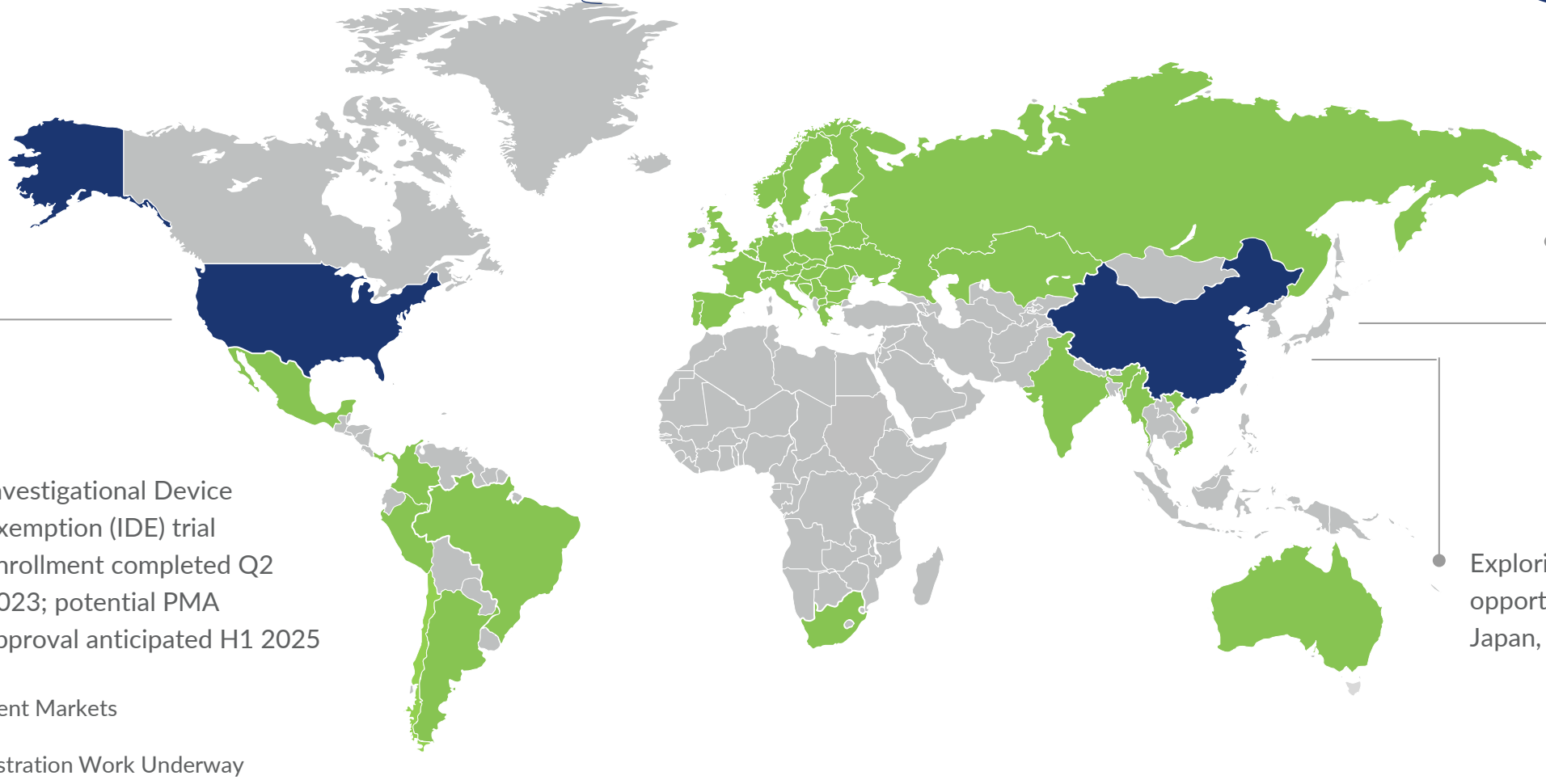
Commercial Footprint

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



Investigational Device Exemption (IDE) trial enrollment completed Q2 2023; potential PMA approval anticipated H1 2025

Signed agreement with Chinese distributor. Working toward distribution

Exploring expansion opportunities Taiwan, Japan, and Korea

Current Markets

Registration Work Underway

INSPIREMD

Robust Intellectual Property Portfolio

Proprietary platform technology supported by IP

Patent Rights	Issued	Pending
USA	19	6
Rest of World	40	17

InspireMD will continue to strengthen and broaden its patent protection globally to enable future pipeline products

IP Counsel: Kligler and Associates, P.A.

Executive Leadership Team

Deep industry experience and subject matter expertise

Marvin Slosman Chief Executive Officer	Shane Gleason Chief Commercial Officer	Craig Shore Chief Financial Officer	Andrea Tommosoli Chief Operating 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	• 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	• 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	• 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

Scientific Advisory Board (Multidisciplinary KOLs)

Sean Lyden, M.D.

Vascular Surgeon

Cleveland Clinic

Chris Metzger , M.D.

Medical Director

Cardiologist

OhioHealth

Kenneth Rosenfield, M.D.

Interventional

Cardiologist

Mass General Brigham

Adnan H. Siddiqui, M.D. Ph.D

Professor, Vice Chairman of the

Department of Neurosurgery

UBNS Neurosurgery
UNIVERSITY AT BUFFALO

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

MARSHALL WACE

SOLEUS CAPITAL

OrbiMed Healthcare Fund Management

NANTAHALA CAPITAL MANAGEMENT, LLC

VELAN CAPITAL

Summary Financials

March 11, 2025

NASDAQ Capital Markets	NSPR
Stock Price	$2.79
Average 3 Month Volume	47.8K
Shares Outstanding	29.7M
Shares Outstanding with Prefunded Warrants	55.2M
Market Capitalization with Prefunded Warrants	$154.0M
Cash Balance - December 31, 2024	$34.6M
Debt - December 31, 2024	$0M

INSPIREMD

Nasdaq: NSPR