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Investment Highlights: Poised to Transform the Carotid Intervention Market



CGuard EPS Stent Platform Utilizing Proprietary MicroNet™ Technology

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



CMS <u>Coverage Expanded</u> to Include Standard Risk and Asymptomatic Reimbursement

Enables stent-first approach to carotid revascularization

Regulatory Efforts Advancing Toward <u>US Approval</u>

FDA approval of CGuard Prime anticipated in H1 2025



Unmatched Clinical Outcomes (Short- and Long-Term)

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 from demographic trends and increased screening and diagnosis



Deep Pipeline and Strategic Roadmap

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



Expanding Commercial Footprint

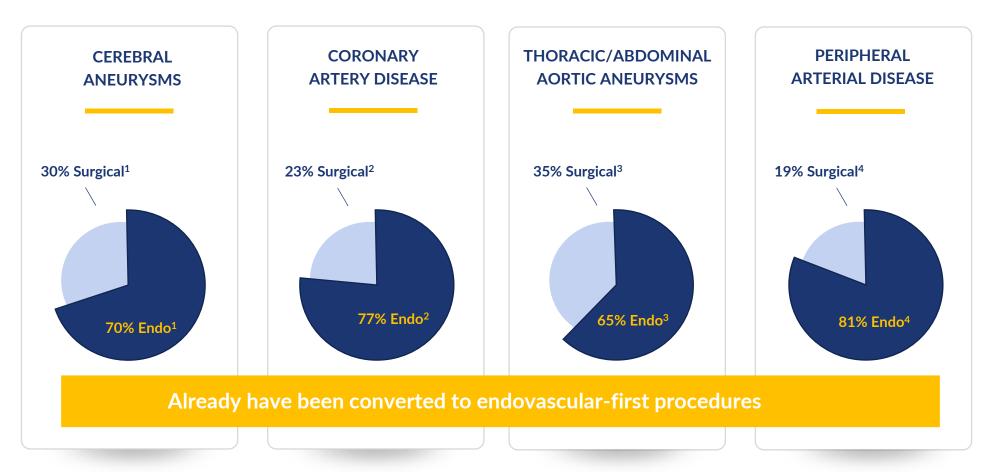
Double-digit market share in >30 served countries (>30% in Italy)

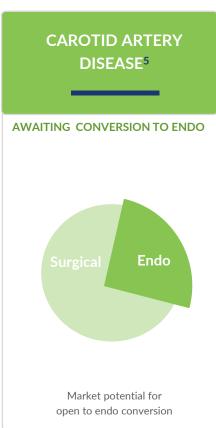
Over 50,000 stents sold to date

Transformational May 2023 financing up to \$113.6 million provides runway through potential US approval of CGuard Prime EPS and other value-creating milestones



Cardiovascular Procedures: The Endovascular Revolution is Nearly Complete





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



Company and Products Overview

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

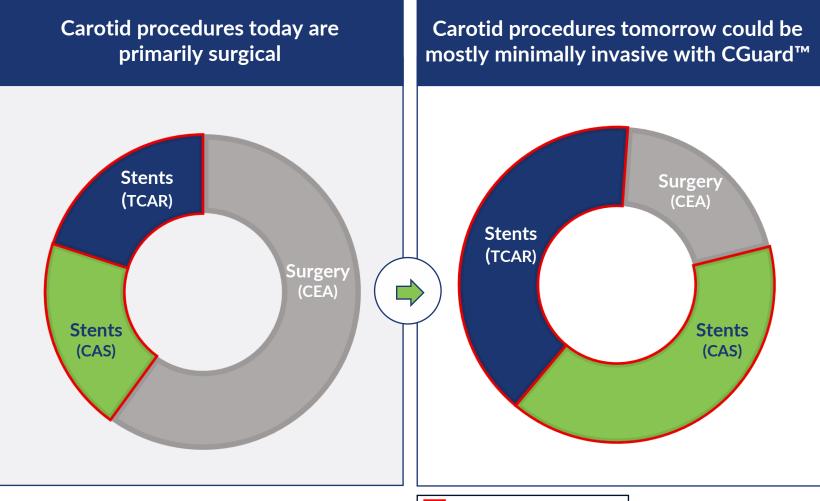
² Culler SD, Kugelmass AD, Brown PP, , et al. Trends in Coronary Revascularization Procedures Among Medicare Beneficiaries Between 2008 and 2012. Circulation. 2015;131(4):362-70

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

Potential Multi-Billion Dollar Market Opportunity



MicroNetTM covered CGuardTM stent platform could become the new gold standard



- Current <u>Treated</u> Global Market:
 → \$1.3 billion
 - 407K Global procedures (CEA/CAS/TCAR) to treat HGCS (High Grade Carotid Stenosis)
- Current Treated U.S. Market:
 - → \$809 million

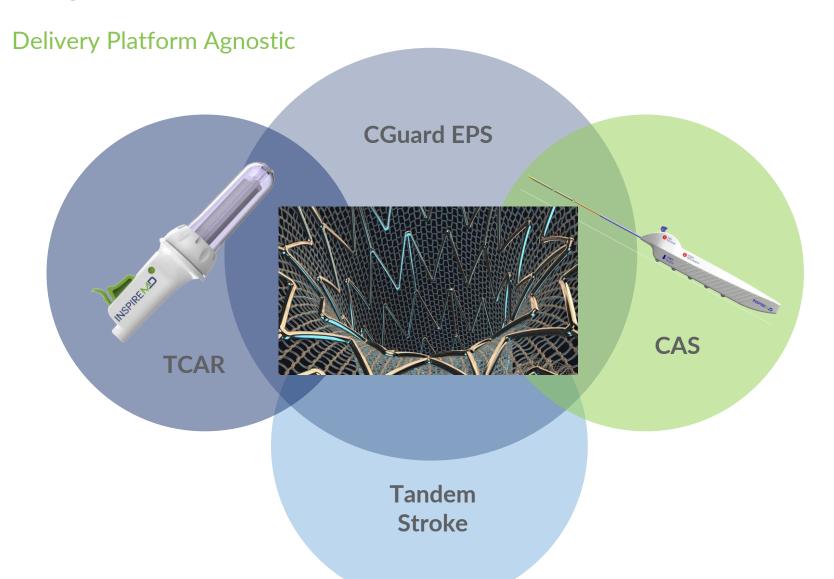
155K procedures to treat HGCS

- Current Untreated Global Market:
 - → \$8 billion
 - ~2.8 million people diagnosed with HGCS (Untreated)
- Standard Risk and Asymptomatic reimbursement (US) increases CAS potential, expected to increase screening and diagnosis

1. 2021 Health Research International Market Report; internal estimates

= InspireMD focus areas

Long-Term Stent Performance is the Cornerstone of Our Focus

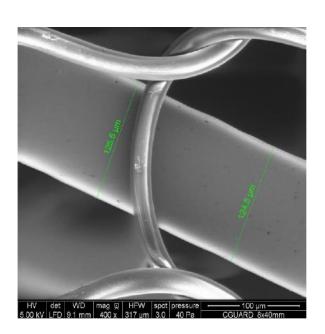


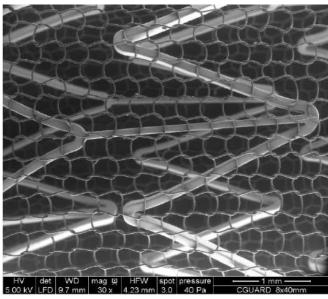
- ✓ Well-positioned to capitalize on the ongoing paradigm shift toward a "stent first" approach and away from surgery
- ✓ Agnostic to stent delivery approach (TCAR vs. CAS)

PROBLEM: Approximately 2/3 of neurovascular events (stroke, TIA) occur after the carotid surgery procedure takes place². How to preserve the flexibility of an open-celled stent while building in embolic protection?

OUR SOLUTION: The CGuard EPS

The only stent platform available with our patented MicroNet mesh technology





Interior Component:
Open-Cell Nitinol stent
(92 μm and 125 μm)

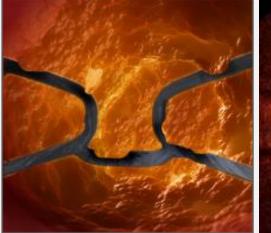
Exterior Component:
Closed-cell PET
(Polyethylene terephthalate)
25 µm

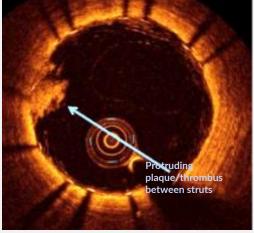
Mesh Cell Size: 165 μm



OUR SOLUTION: CGuardTM Stent with Proprietary MicroNetTM Technology¹

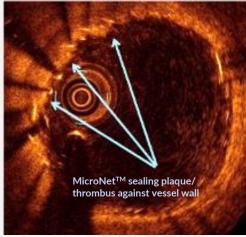
Mesh-covered stent offers superior plaque coverage when compared to conventional stents











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

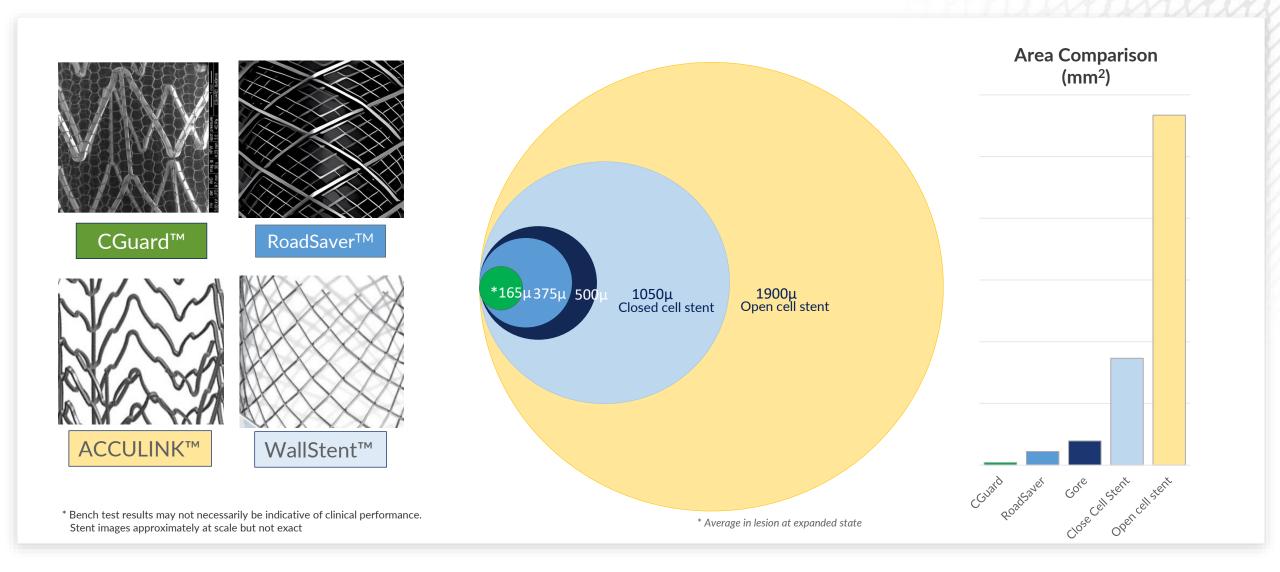
An Embolic Prevention System (EPS) for Ultimate Thrombus Protection

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

¹ 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

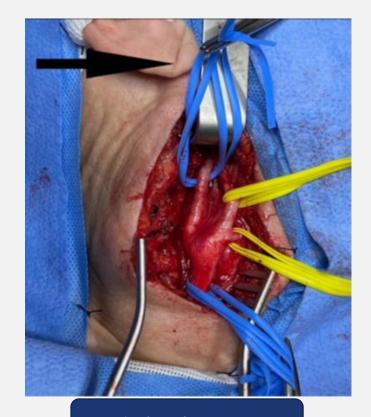


Stent Cell Sizes

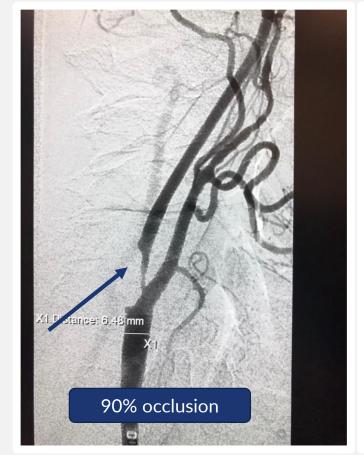




A Picture is Worth a Thousand Words...



VS





Surgical Endarterectomy

Stenting

Unmatched Foundational Data and Evidence



PMA Trial Design (C-GUARDIANS)

Prospective, multicenter international single-arm clinical trial

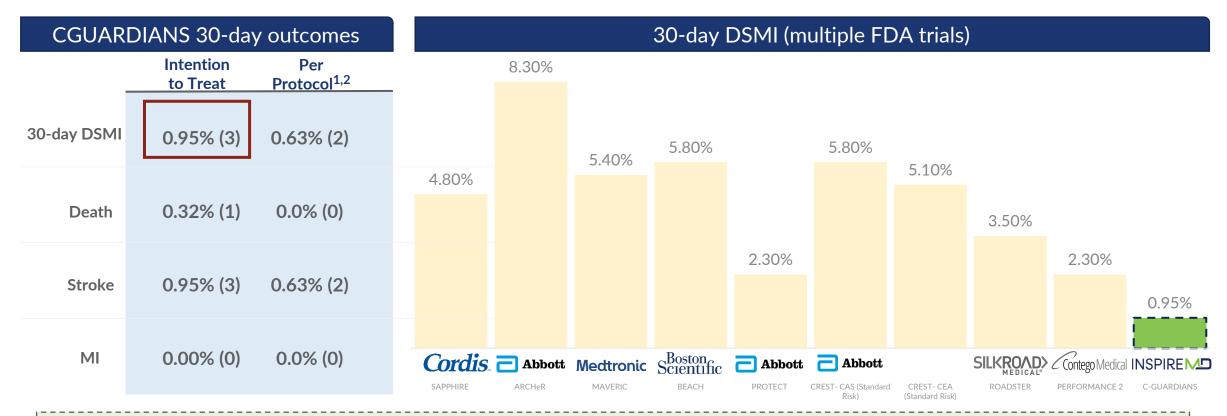
- Pivotal study objective: to evaluate the safety and efficacy of the CGuard™ Carotid Stent System in the treatment of carotid artery stenosis
 - **Primary Endpoint:** Composite of DSMI through 30 days or ipsilateral stroke 31 365 days post-index procedure. Calculation will be the composite of the following: 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 31-365day follow-up, based on CEC adjudication. The rate will be compared to a performance goal of 11.6% developed from published CAS literature.
 - In European independent clinical studies peer-review* published data of 1,104 patients followed for one year 1.99%
- Chris Metzger, M.D. (Ballad Health) and Piotr Musialek, M.D. (John Paul II Hospital, Krakow, Poland): Principal Investigators
- 316 Patients Enrollment completed (23 months)
- **24 Centers** (19 in the United States and 5 in Europe)

^{*} 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



- Demonstrates the lowest 30-day DSMI rates of any FDA approval/clearance trial of 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

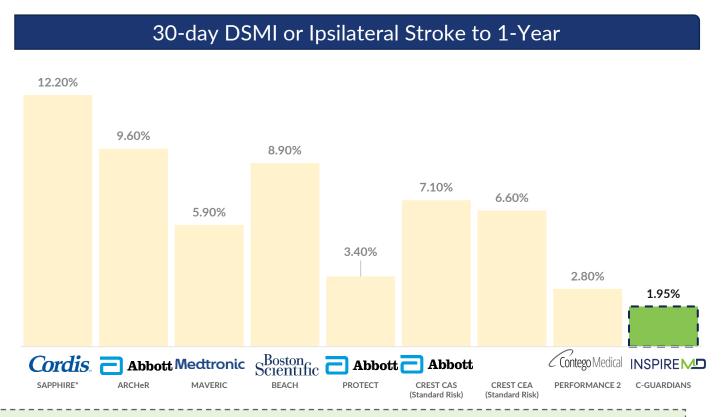


- 1) Kaplan-Meier estimate for all 1-year endpoints
- 2) Per Protocol Analysis excludes 15 patients with Major Protocol Deviations

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

Primary Endpoint: 30-day Death, Stroke, or MI + Ipsilateral Stroke between 31 and 365 days Target Lesion Revascularization (TLR) through 365 days. Intention to Treat 1.95% (6) 1.70% (5) 1.70% (5)



- 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



- 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

Safety Comparison: InspireMD vs. Silk Road vs. Contego Medical

30-day Major Adverse Events (DSMI) with independent adjudication.

	INSPIRE	SILKROAD>	Contego Medical
	C-GUARDIANS U.S. Pivotal Trial	ROADSTER U.S. Pivotal Trial	PERFORMANCE II U.S. Pivotal Trial
	Intent to Treat (n=316)	Intent to Treat (n=141)	Intent to Treat (n=305)
Death, Stroke, or MI	0.95%	3.5%	2.30% *
Death	0.32%	1.4%	0.33%
Any Stroke	0.95%	1.4%	1.31%
Myocardial Infarction	0.00%	0.7%	0.66%

- PERFORMANCE II 2.30% DSMI on par with NAV6 FDA clinical study (PROTECT) published results in 2011
- 80% of PERFORMANCE II cases were done with NAV6 EPD



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

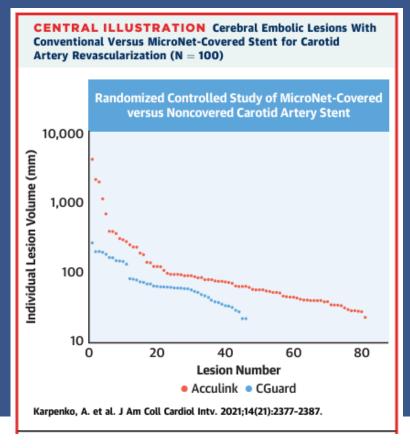
30-day and 12-month event rates by stent type (random-effect model)

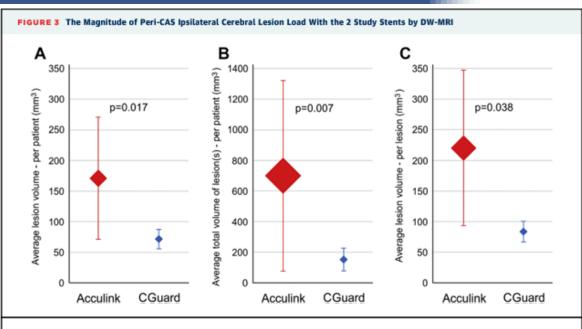
- Improvements from secondgeneration stents (SGS) relative to first-generation stents (FGS), but important differences exist amongst the SGS
- CGuard's MicroNet drives improvement both in event reduction (due to improved scaffolding) and restenosis reduction (due to less metal burden)

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)



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





(A) Average lesion volume (95% CI) in lesion-affected patients (the primary study endpoint). Diamond size difference reflects the magnitude of the volume difference. (B) Per-patient total lesion volume (sum of individual lesion volumes; average, 95% CI) in lesion-affected patients. Diamond size difference reflects the magnitude of the volume difference. (C) Average lesion volume (average, 95% CI) in the study groups on a per-lesion basis. Diamond size difference reflects the magnitude of the volume difference.

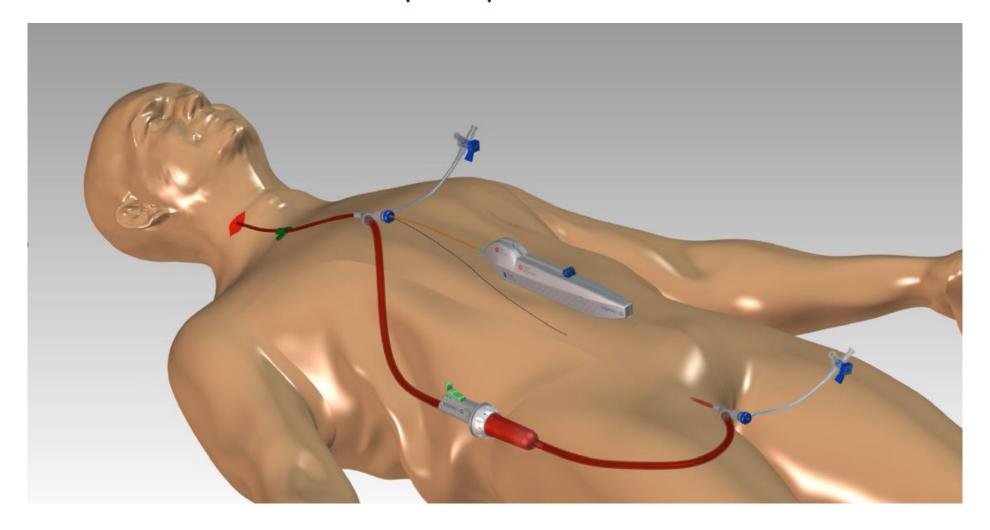
DW-MRI number of cerebral lesions: 45 with CGuard vs 82 with Acculink (p=0.03) DW-MRI total volume of cerebral lesions: 18,212 mm³ with CGuard vs 3,930 mm³ with Acculink

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

TCAR



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

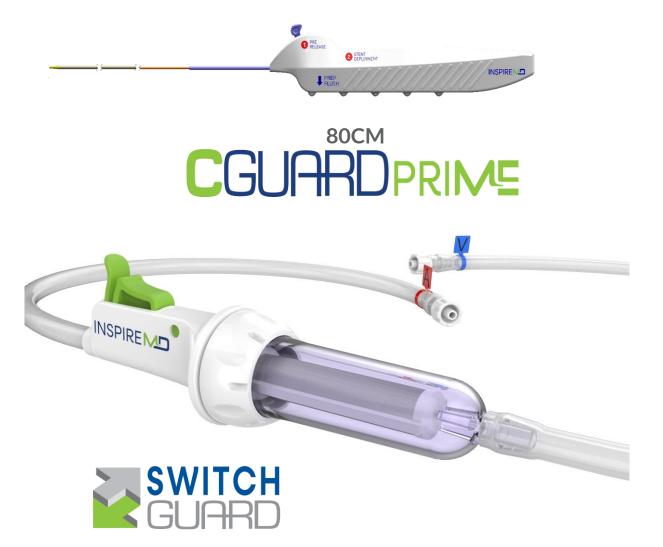


InspireMD combines SwitchGuard NPS with Best-in-Class CGuard Implant

^{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)



TCAR Market Opportunity

>2,800 TCAR-trained physicians in the U.S.¹

>25,000 TCAR procedures (\$177M) performed in the U.S. in 2023, double-digit growth projected^{1,2}

InspireMD's CGUARDIANS II TCAR trial anticipated to commence H2 2024; Potential clearance in H1 2026

¹ SILK reporting

² Piper-Sandler model, 11/8/23

The Promise of TCAR with CGuard

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

- "Transcarotid Flow Reversal and MicroNET Covered Stent for Carotid Revascularization in Recently Symptomatic Patients: A DW MRI-Based Prospective Evaluation"
 - 15 <u>recently-symptomatic</u> (<14 days) patients were treated with CGuard using flow-reversal (TCAR)
 - All stents remained patent with no major adverse events through 30 days (0% TLR, MAE)
 - Post-procedural DW MRI lesion found in only one patient (6.7%);
 complete resolution in follow-up imaging at 30 days

Conclusions:

- (TCAR) combined with a MicroNET stent performed within 14 days of symptom onset could carry a <u>remarkably low incidence of</u> 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"





Corporate

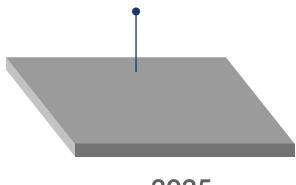


Roadmap / Milestones

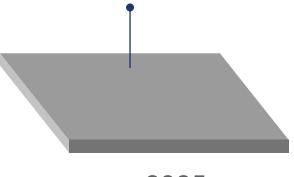
Key Value Drivers

- FDA PMA Submission (Module II, III and IV)
- Initiation of CGUARDIANS II (TCAR) study
- Acute Stroke EFS- Tandem Lesions
- China Regulatory Submission
- CGuard Prime CE Mark

- CGuard Prime PMA Approval for CAS and TCAR
- U.S. Commercial Launch
- Build out of U.S. HQ and Production



2024

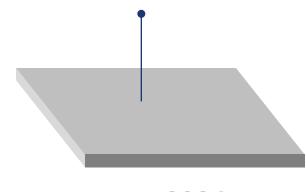


2025





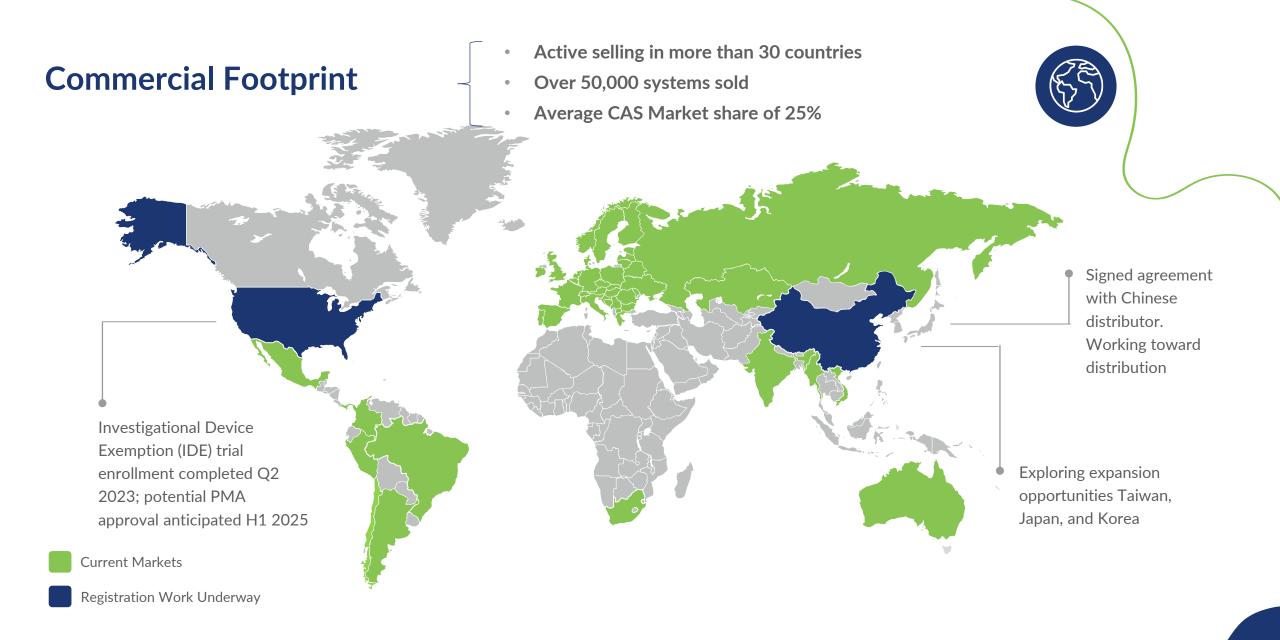
- Scale US Operations
- Approval China



2026









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

Executive Leadership Team (continued)

Deep industry experience and subject matter expertise









	Peter Ligotti	Dr Patrick Verta	Amir Kohen	Cheryl Tal
	EVP and General Manager	EVP Clinical & Medical Affairs	SVP Finance & HR	VP Quality & Regulatory Affairs
•	30+ years medical device experience, joined NSPR 2024 Previous VP/GM for NuVasive Specialized Orthopedics, SVP/GM Integra LifeSciences Prior experience at Smith & Nephew BA in Biology from Syracuse University	 25+ years medical device experience, NSPR since 2023 Previous Chief Medical Officer Canary Medical, Sunshine Heart and Neomend; VP Medical Affairs at Edwards Lifesciences Prior experience at Abbott MD from Faculte de Medecine de Paris XII, DVM from Ecole Nationale Veterenaire d'Alfort, MS in Biostatistics from Universite de Paris VI 	 ~20 years of finance experience, NSPR since 2011 Prior experience at PwC BA in Economics, Accounting and Management and MBA from Tel Aviv University, M.A. in Law from Bar-Ilan University 	 20+ years medical device and pharmaceutical experience, NSPR since 2023 Regulatory Affairs, Quality Assurance and Clinical Affairs experience Prior leadership roles at Redent Nova, Change Healthcare and New Phase

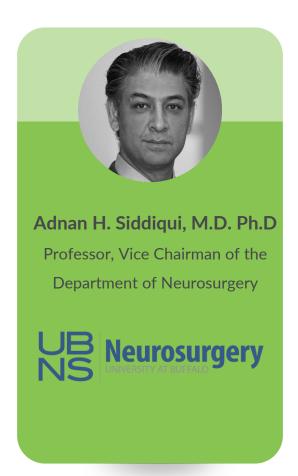
Scientific Advisory Board (Multidisciplinary KOLs)

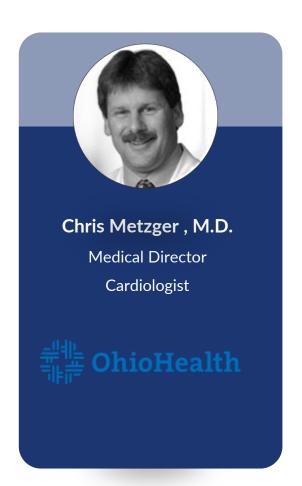


Kenneth Rosenfield, M.D.

Interventional Cardiologist

Mass
General
Brigham







Board of Directors

Marvin L. Slosman President and CEO	Mr. Slosman has over 30 years of experience in the medical device industry with focused leadership in commercialization and international market development in both public and privately held companies. He has had senior management roles in a variety of public and privately held companies.	Cordis. INTEGRA
Paul Stuka Chairman	Mr. Stuka was named to the Board of Directors in August of 2011 and serves as Chairman of the Board of Directors. Mr. Stuka is a Managing Member of Osiris Partners and a 30-year investment industry veteran.	Fidelity
Michael Berman Director	Mr. Berman is a successful entrepreneur within the medical device industry. He joined Scimed in 1986, leading its marketing activities until its merger with Boston Scientific in 1995. From 1995-2000, he served as President of Boston Scientific/Scimed. Venture partner in RiverVest Ventures	Seston Scientific LUTONIX
Thomas Kester Director	Mr. Kester is CFO of Kester Search Group, Inc., a private executive search firm specializing in sales force placement for medical, dental and diagnostic device companies. He spent 28 years at KPMG LLP.	Kester Search Group Clear objectives. Procise solutions.
Gary Roubin, M.D.,Ph.D. Director	Dr. Roubin was named to the board of Directors in October 2020. Dr. Roubin has co-authored more than 280 clinical publications and has contributed to 20 textbooks in the fields of Interventional Cardiology and Vascular Surgery. He was a key contributor in the CREST trial which has validated the use of carotid stents for the treatment of carotid artery stenosis.	Lenox Hill Hospital Northwell Health
Katie Arnold Director	Ms. Arnold was named to the Board of Directors in May 2021. Ms. Arnold founded and leads SPRIG Consulting, providing the entire spectrum of strategic marketing services to medical companies. Ms. Arnold is currently an adjunct professor at Northwestern University's Kellogg School of Business, where she teaches medical product commercialization and financing.	Kensey Nash Regenerating Medicine* SPRIS
David Bonita, MD Board Observer	Dr. Bonita is a General Partner of OrbiMed. Prior to joining OrbiMed, he worked in the healthcare investment banking groups of Morgan Stanley and UBS. Dr. Bonita received his A.B. magna cum laude in Biological Sciences from Harvard University and his joint M.D./M.B.A. from Columbia University where he was elected to the Alpha Omega Alpha Medical Honor Society and	OrbiNed Healthcare Fund Management



Beta Gamma Sigma Business Honor Society.

HARVARD MEDICAL SCHOOL

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.



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. 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













Summary Financials

June 11, 2024

NASDAQ Capital Markets	NSPR
Stock Price	\$2.68
Average 3 Month Volume	34.9K
Shares Outstanding	25.1M
Shares Outstanding with Prefunded Warrants	38.9M
Market Capitalization with Prefunded Warrants	\$104.2M
Cash Balance - March 31, 2024	\$34.0M
Debt	\$0M



