



CGuard EPS Carotid Stent Platform for Sustained Embolic Protection

INSPIRE 

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.

Investment Highlights : Transformational Market Drivers



CGuard EPS Stent Platform utilizing Proprietary MicroNet™ Technology

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



Unmatched Clinical Outcomes Data (both Short- and Long-Term) (published and peer reviewed)

CGuard™ EPS – (9) clinical trials completed >1,850 patients



Market Potential

Current treated market: **\$1.3 billion** (Dx & Treated with CEA + CAS)

Total untreated market: **\$8 billion** (Dx with HGCS not treated)



Expanding Commercial Footprint

Double-digit market share in **30** served countries (34% in Italy)

Over **48,000** stents sold to date



CMS Approved Standard Risk Reimbursement

Decision, October 2023

- Opens entirety of Carotid Revascularization segment to stenting
- Enables Trans Femoral stenting to broader patient cohort (155,000)

US IDE Trial Advancing toward US approval

FDA decision on approval of CGuard EPS anticipated in **H1 2025**

*milestones and study design noted in U.S. Market / Regulatory Pathway







Deep Pipeline and Strategic Roadmap

MicroNet™ technology pipeline: SwitchGuard for TCAR; Acute Stroke with tandem lesions

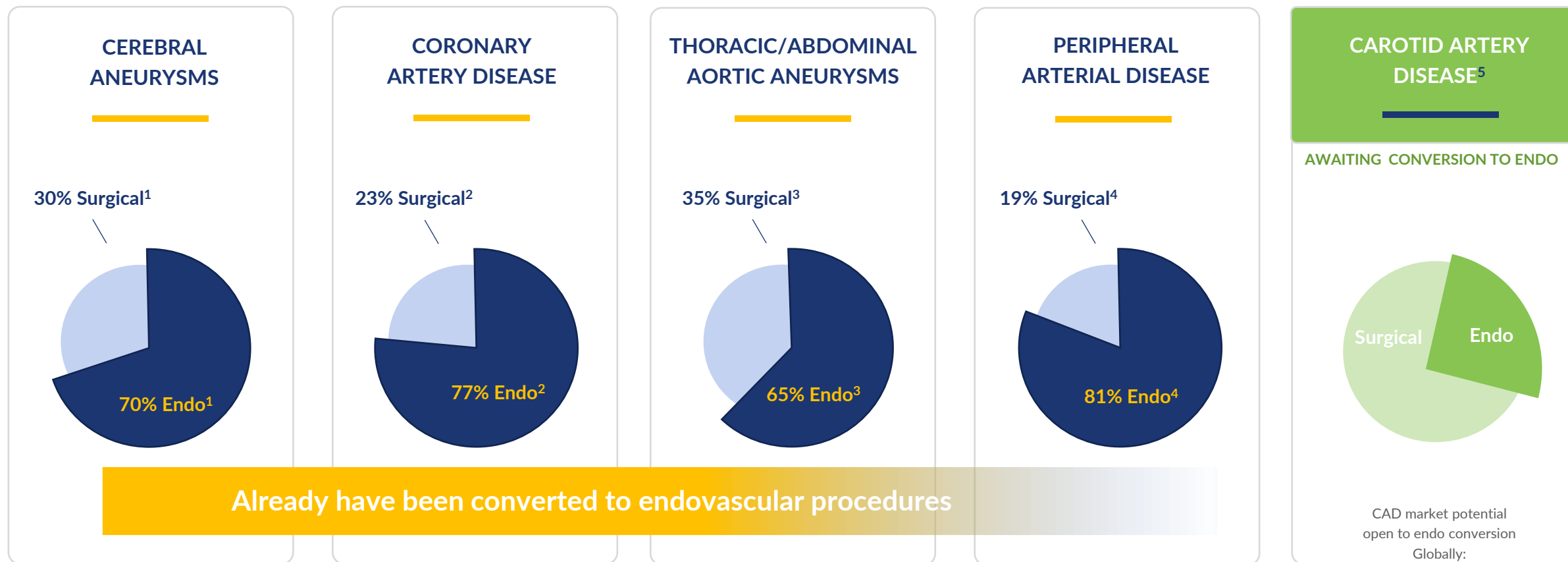
Transformational May 2023 financing up to \$113.6 million provides runway through potential US approval of CGuard Prime EPS and other value-creating milestones

CMS Final National Coverage Determination, October 11, 2023

In summary, this final decision memorandum, which affects NCD 20.7 sections B4 and D, revises Medicare coverage for Percutaneous Transluminal Angioplasty (PTA) of the carotid arteries concurrent with stenting by:

-  **Expanding coverage** to individuals previously only eligible for coverage in clinical trials;
-  Expanding coverage to **standard surgical risk** individuals by removing the limitation of coverage to only high surgical risk individuals;
-  Adding **formal shared decision-making** with the individual prior to furnishing CAS; and
-  Allowing **MAC discretion** for all other coverage of PTA of the carotid artery concurrent with stenting not otherwise addressed in NCD 20.7.

Endovascular Procedures: Landscape and InspireMD Potential



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

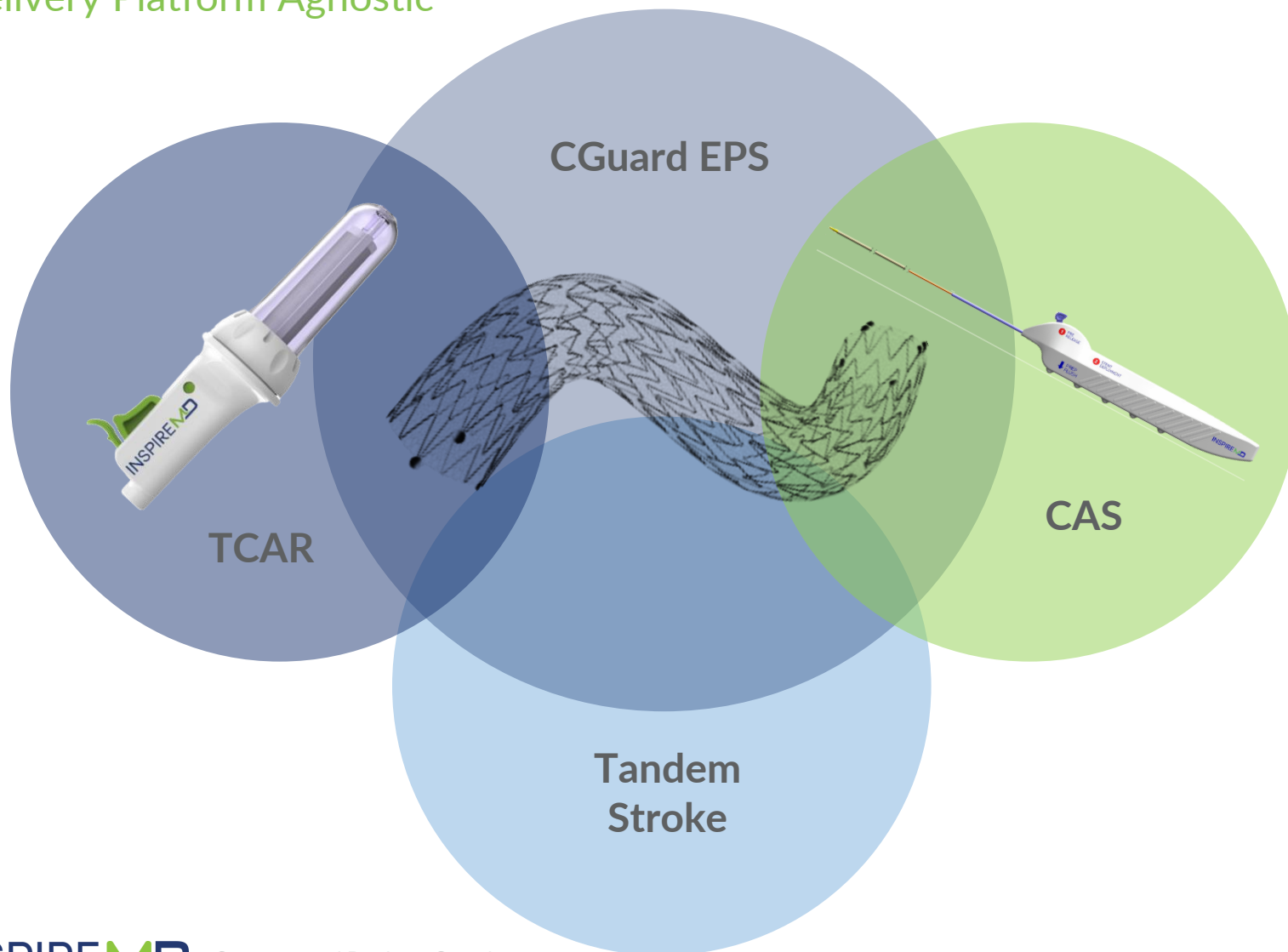
³ Beck AW, Sedrakyan A, Mao J, et al. Variations in Abdominal Aortic Aneurysm Care: A Report From the International Consortium of Vascular Registries. Circulation. 2016;134(24):1948-1958

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

Long-Term Stent Performance is the Cornerstone of Our Focus

Delivery Platform Agnostic

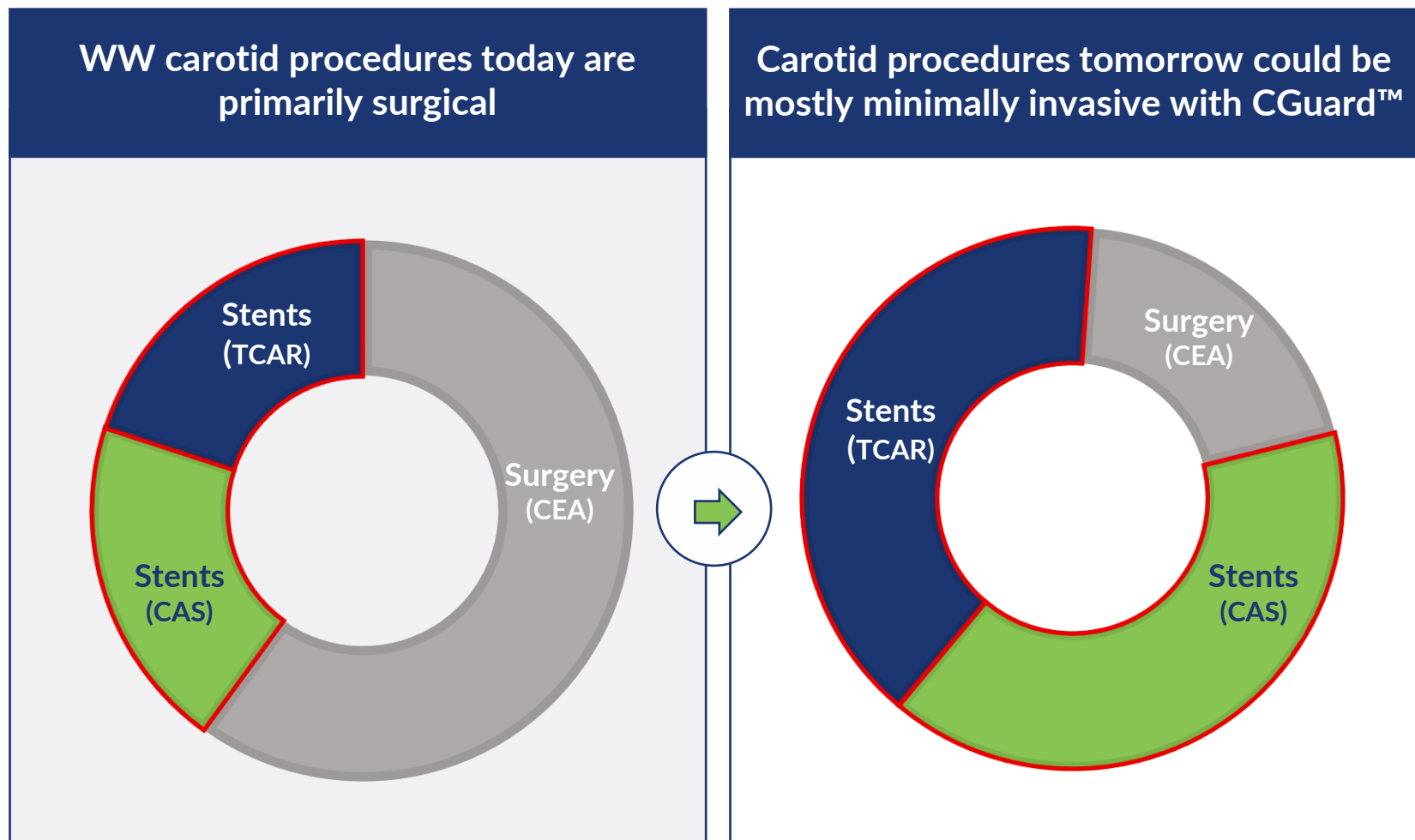


- ✓ Well positioned to capitalize on the ongoing **paradigm shift toward a “stent first” approach** and away from surgery
- ✓ **Agnostic to stent delivery platform (TCAR vs. CAS)**



Potential Multi Billion Dollar Market Opportunity

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



1. 2021 Health Research International Market Report; internal estimates

◆ **Current Treated Global Market:**
→ **\$1.3 billion** ⁽¹⁾

407K Global procedures
(CEA/CAS/TCAR) to treat HGCS

◆ **Current Treated U.S. Market:**
→ **\$809 million**

155K procedures to treat HGCS (High
Grade Carotid Stenosis)

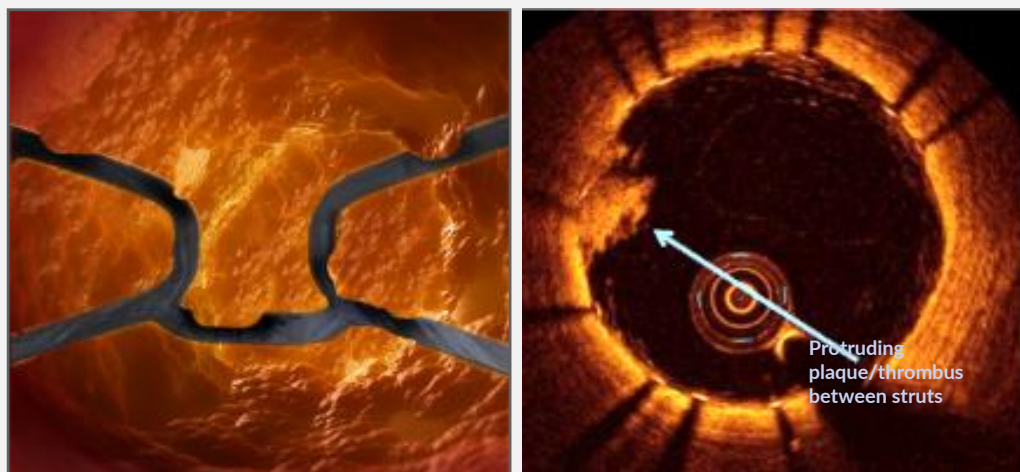
◆ **Current Untreated Global Market:**
→ **\$8 billion**

~2.8 million people diagnosed with HGCS
(Untreated)

◆ **Standard Risk Reimbursement (US)
increases CAS potential**

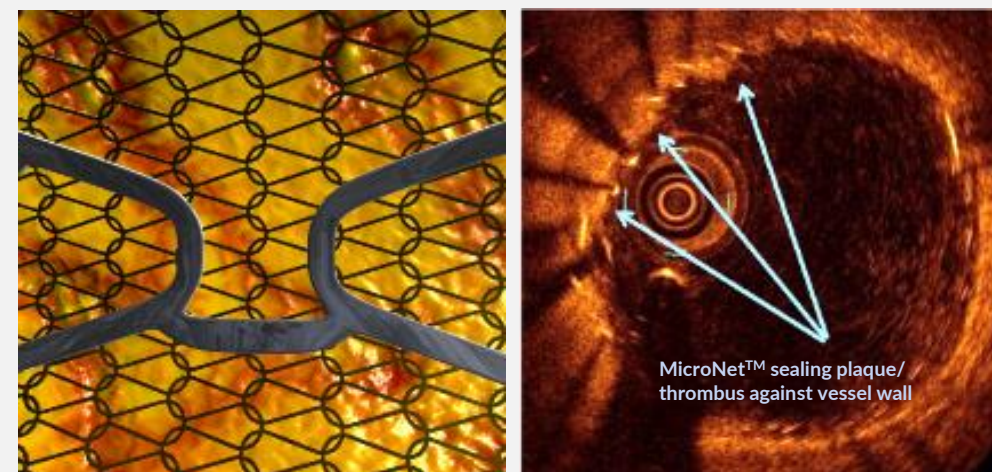
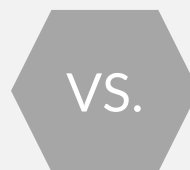
OUR SOLUTION: Proprietary MicroNet™ Technology¹

New mesh covered stent offers superior plaque coverage when compared to conventional stent approaches



Conventional Open Cell Stent (1st GEN):

Bare or dual layer approach, with plaque protrusion risk



CGuard Stent System (2nd GEN):

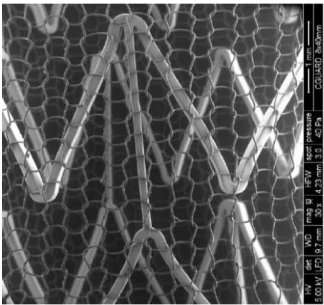
Stents are covered in MicroNet

An Embolic Prevention System (EPS) for Ultimate Thrombus Protection

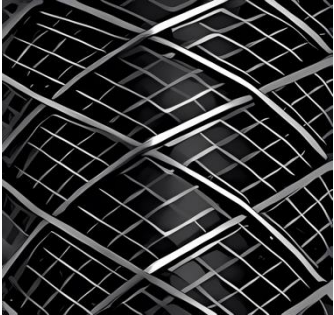
MicroNet captures and locks thrombus & plaque materials against the arterial wall, deterring debris from entering the bloodstream while also acting as a mechanical barrier to prevent plaque protrusion

¹Tomoyuki 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

Pore Sizes



CGUARD™



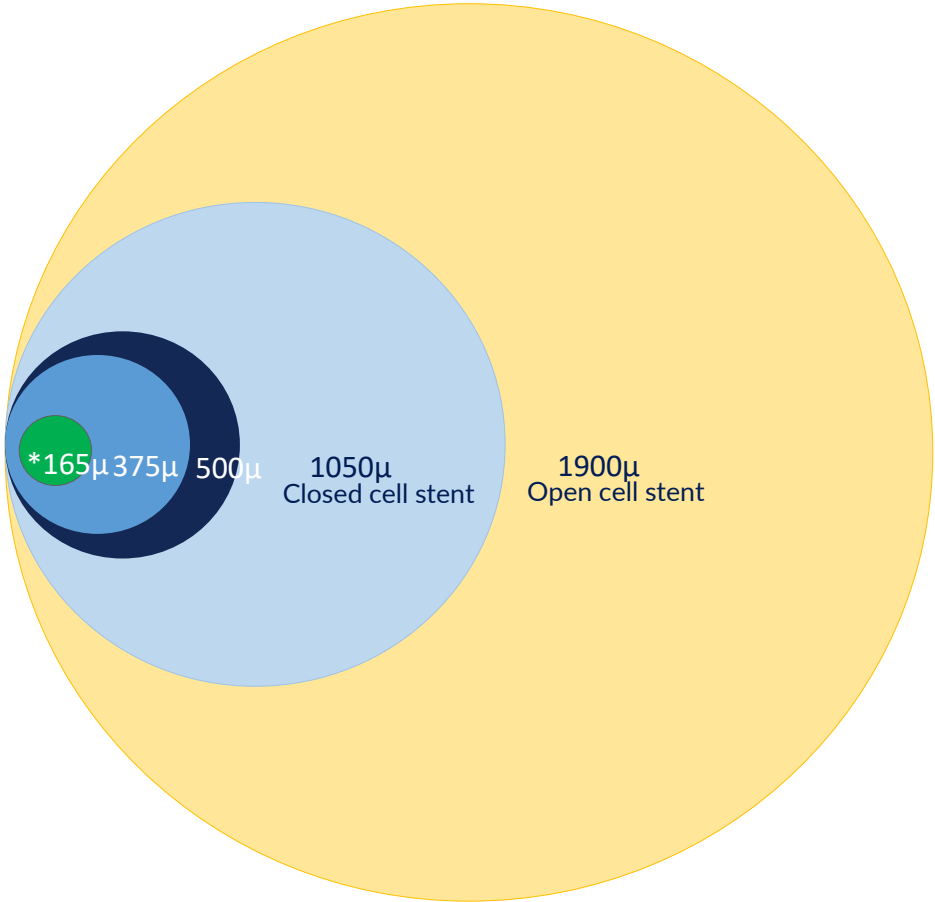
CASPER®



ACCULINK™

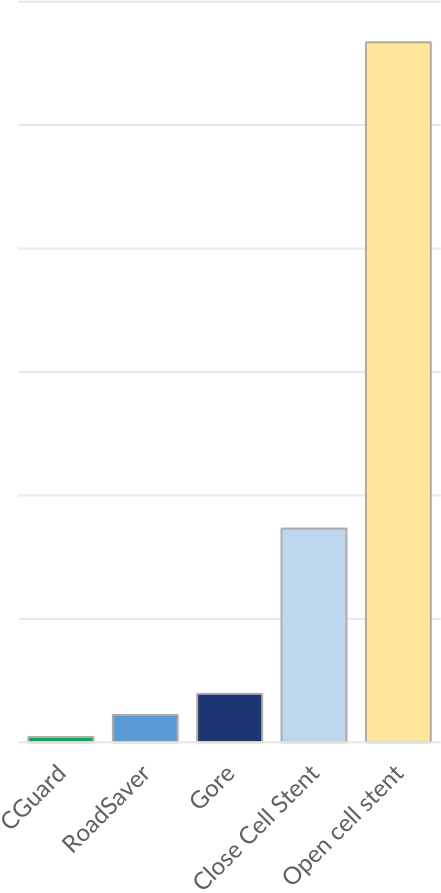


WallStent™



* Average in lesion at expanded state

Area Comparison (mm²)

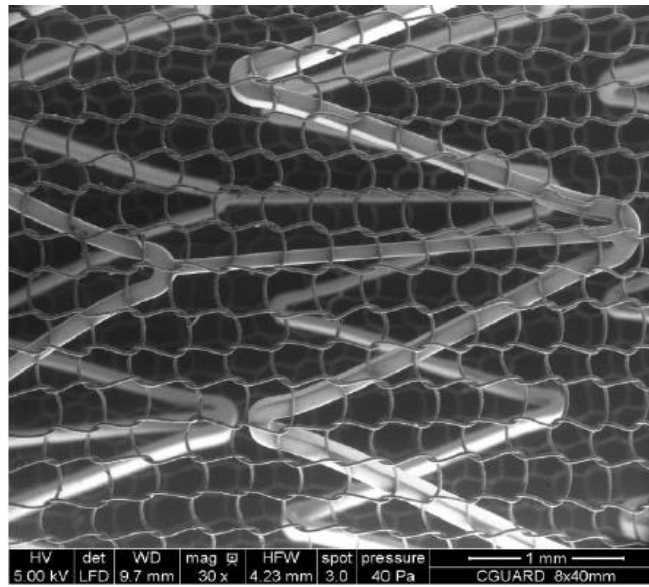
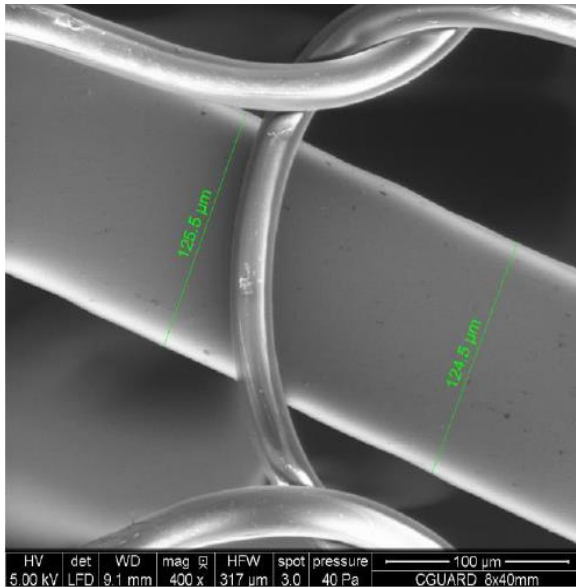


* Bench test results may not necessarily be indicative of clinical performance.
Stent images approximately at scale but not exact

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

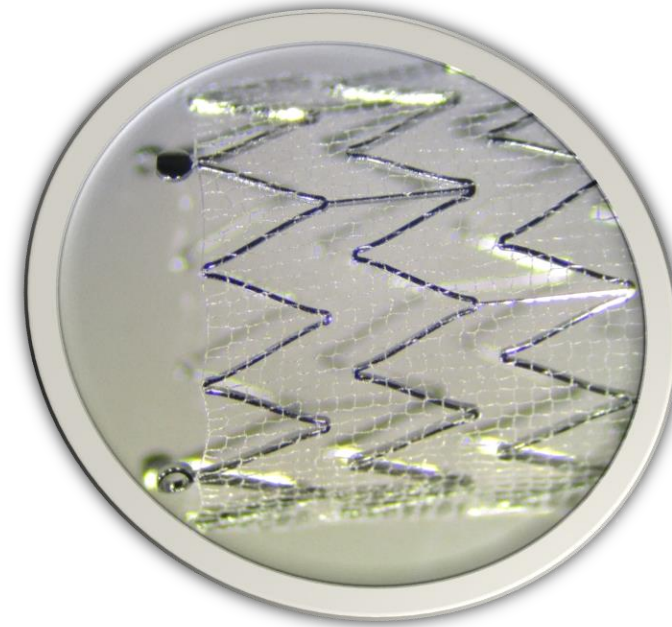
The only stent platform available with our patented MicroNet mesh technology



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

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

Cell size: 165 µm



1. Cano et al. Rev Bras Cardiol Invasiva 2013; 21(2): 159-64. 2. Bosiers et al. Eur J Vasc Endovasc Surg Vol 33, Feb 2007.,

AT120D/NF V94

ZOOM X1.0

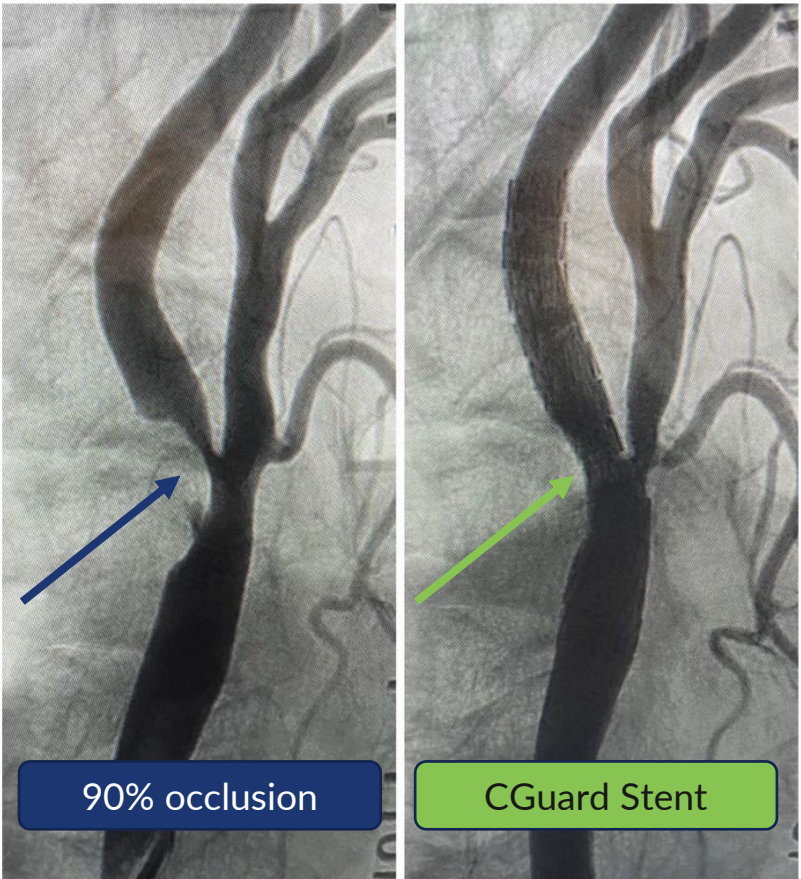
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ZOOM X1.0
BRT 6

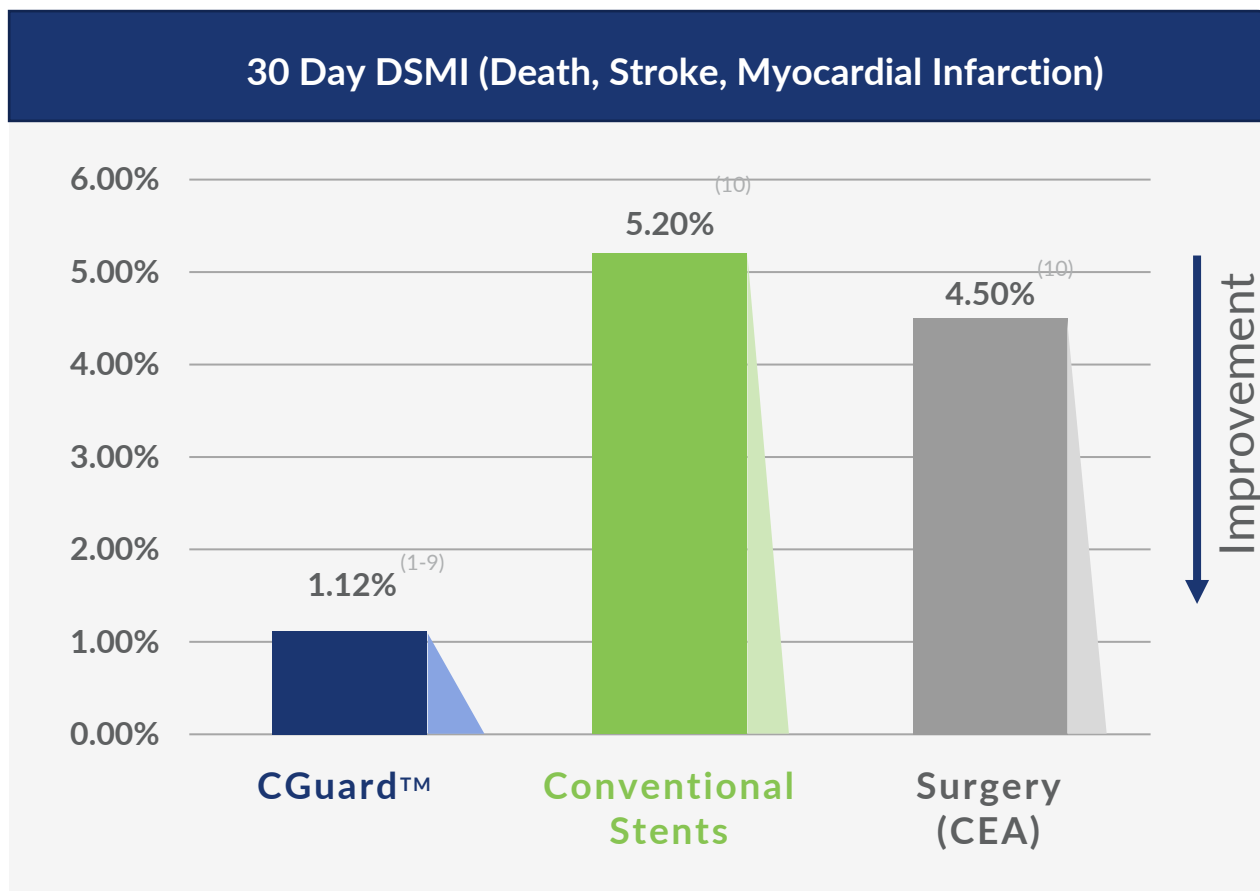
A picture is worth a thousand words ...



Unmatched Superior Foundational Data

CGuard™ EPS Yields Superior Clinical Outcomes

When compared with Conventional Stents and Surgery (CEA), CGuard trends Superior



- No stent related major stroke and 11 minor strokes to date with CGuard in 1,873 patients in 9 studies (0.6%)
- CGuard is a next-generation stent supported by a strong clinical data

1. IRONGUARD I EuroIntervention 2018 Nov 20. 14:1150-1152. 2. IRONGUARD II, LINC 2020 3. CASANA Eur J Vasc Endovasc Surg 2017 Dec. 54:681-687. 4. WISSGOTT I J Endovasc Ther 2019 08. 26:578-582. 5. WISSGOTT II J Endovasc Ther 2017 02. 24:130-137. 6. PARADIGM Extend, EuroIntervention 2016 Aug 05. 12:e658-70. Updated LINC 2020. 7. CARENET JACC Cardiovasc Interv 2015 Aug 17. 8:1229-1234. 8. Randomize Clinical Trial EuroPCR e-Course, June 25, 2020. 9. Tigkiropoulos J Endovasc Therapy Volume 28 Issue 4, Aug 2021 10. CREST N Engl J of Med 2010 July 1. 11-23. * Calculated on Event Count

Carotid Solution: Our Well Studied Mesh-Covered Technology

More than 1,850 patients in Clinical Publications & Studies

CLINICAL RESEARCH

Thirty-day results from prospective multi-center evaluation of carotid artery stenting using the CGuard MicroNet-covered Embolic Protection System in real-world multicenter clinical practice: the IRON-Guard study

Francesco Spertak, MD, Laura Capocasa, MD, Pasquale Sirignano, MD, ...

SHORT REPORT

Twelve-month results of the Italian registry on protected CAS with the mesh-covered CGuard stent; the IRON-Guard study

Laura Capocasa, MD, Pasquale Sirignano, MD, ...

CLINICAL RESEARCH

Novel PARADIGM in carotid revascularisation: Prospective evaluation of All-corer perCutaneous aRoTid revascularisation in symptomatic and Increased-risk asymptomatic carotid artery stenosis using CGuard™ MicroNet-covered embolic prevention stent system

Flavio Mazzeo, MD, ...

ENDOVASCULAR

Initial Clinical Results and In Vitro Testing of the New CGuard MicroNet-Covered "One-Size-Fits-All" Carotid Stent

Christian Wignats, MD, ...

Abstract

A Prospective, Multicenter Study of a Novel Mesh-Covered Carotid Stent

The CGuard CARENET Trial

Carotid Embolic Protection Using MicroNet

Abstract

ORIGINAL STUDIES

Highly-calcific carotid lesions endovascular management in symptomatic and increased-stroke-risk asymptomatic patients using the CGuard™ dual-layer carotid stent system: Analysis from the PARADIGM study

Adam Mazurek, MD, ...

ARTICLE IN PRESS

Safety and Efficacy of the New Micromesh-Covered Stent CGuard in Patients Undergoing Carotid Artery Stenting: Early Experience From a Single Center

Heath Cramer, MD, ...

ENDOVASCULAR

Clinical Results and Mechanical Properties of the Carotid CGuard Double-Layered Embolic Prevention Stent

Christian Wignats, MD, ...

ENDOVASCULAR

Clinical Results and Mechanical Properties of the Carotid CGuard Double-Layered Embolic Prevention Stent

Christian Wignats, MD, ...

Clinical Support Highlights

2015-2022



CARENET Trial

First in Man Study-
Demonstrated Safety,
Efficacy, &
Neuroprotection over
other stents data

Reduction of embolization

*(50% fewer lesions / 80% less volume
with 0 events @ 30 days)*



PARADIGM + Extend

Opened CARENET study
inclusion criteria all
comers.

**Concluded the safety and
clinical outcomes were
applicable to all.**

*500 patients followed 5 years.
Defines standard for measured
sustained protection and long-term
outcomes*



Randomized Control Trial

CGuard vs. Conventional
Stent (Abbott Acculink)

**CGuard superiority in
Randomized study format**

Confirms CARENET results with
statistical significance

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

Table 2A. 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)

	FGS	SGS	Competitor #1	Competitor #2	CGuard
30-day Stroke [%] (95% CI)	3.01 (2.63-3.38)	0.60 (0.28-0.92)	0.50 (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 (0-2.66)	4.82 (2.44-7.2)	1.08 (0.55-1.60)
12-mo Ipsilateral Stroke [%] (95% CI)	3.51 (2.52-4.50)	0.7 (0-1.47)	0.26 (0-1.27)	3.1 (1.11-5.1)	0.38 (0-0.9)
12-mo 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 (0-0.82)
12-mo Ipsilateral Stroke/Restenosis [%] (95% CI)	8.15 (6.34-9.96)	5.12 (2.14-8.10)	7.86 (5.04-10.68)	7.93 (4.82-11.04)	0.73 (0-1.44)

US Regulatory Pathway

PMA Trial Design (CGuardians I)

FDA Trial Performance Goal – 11.6% vs European Clinical Trials' Mean Performance 1.32% (w/ 1 Yr)

- **Pivotal study objective** evaluate the safety and efficacy of the CGuard™ Carotid Stent System in the treatment of carotid artery stenosis
 - **Intent to Treat Protocol**
 - **Primary Endpoint:** Symptomatic and asymptomatic patients undergoing carotid artery stenting (CAS) to a performance goal of <11.6% developed from published CAS literature. (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.
 - In European clinical studies, CGuard data of **1,485 patients** followed for one year - **1.32%*****
- **Chris Metzger, M.D.** (Ballad Health) : Principal Investigator
- **316 Patients – Enrollment completed (23 months)**
- **25 Centers** (20 in the United States and 5 in Europe)
- **HCC (Hart Clinical Consultants)** CRO specializing in Carotid trial execution
- **Christina Brennan, M.D.** and **Gary Roubin, M.D.,PhD.** : Supporting advisory experts

*** 1. IRONGUARD I EuroIntervention 2018 Nov 20. 14:1150-1152 2. IRONGUARD II 1-Year Results From a Prospective Experience on CAS Using the CGuard Stent System JACC: Cardiovascular Interventions Vol. 14, No. 17, 2021. 3. Academic Data Registry PARADIGN-EXTENDED Monitored 30 days and 12 Months Outcomes Report, Oct 24, 2022 (Prospective evaluation of All-comer percutaneous carotid revascularisation in symptomatic and increased risk asymptomatic carotid artery stenosis using CGuard MicroNet –covered embolic prevention stent system) 4. 5 Year Clinical Ultrasound Outcomes in CARENET Prospective Multicenter Trial of CGuard MicroNET Covered Stent JACC: Cardiovascular Interventions Vol. 15, No. 18, 2022 September 26, 2022:1183-1891

CGuardians I: 30-day Major Adverse Events

Results presented at VIVA23

Event rate in % (n)	ITT (N=316)	Per Protocol [^]
Death, Stroke or MI [*]	0.95% (3)	0.63% (2)
Death [#]	0.32% (1)	0.0% (0)
Any stroke [#]	0.95% (3)	0.63% (2)
Major Stroke [#]	0.63% (2)	0.32% (1)
Minor Stroke [#]	0.32% (1)	0.32% (1)
MI [#]	0.0% (0)	0.0% (0)
Death or any stroke [*]	0.95% (3)	0.63% (2)
Death or major stroke [*]	0.63% (2)	0.32% (1)

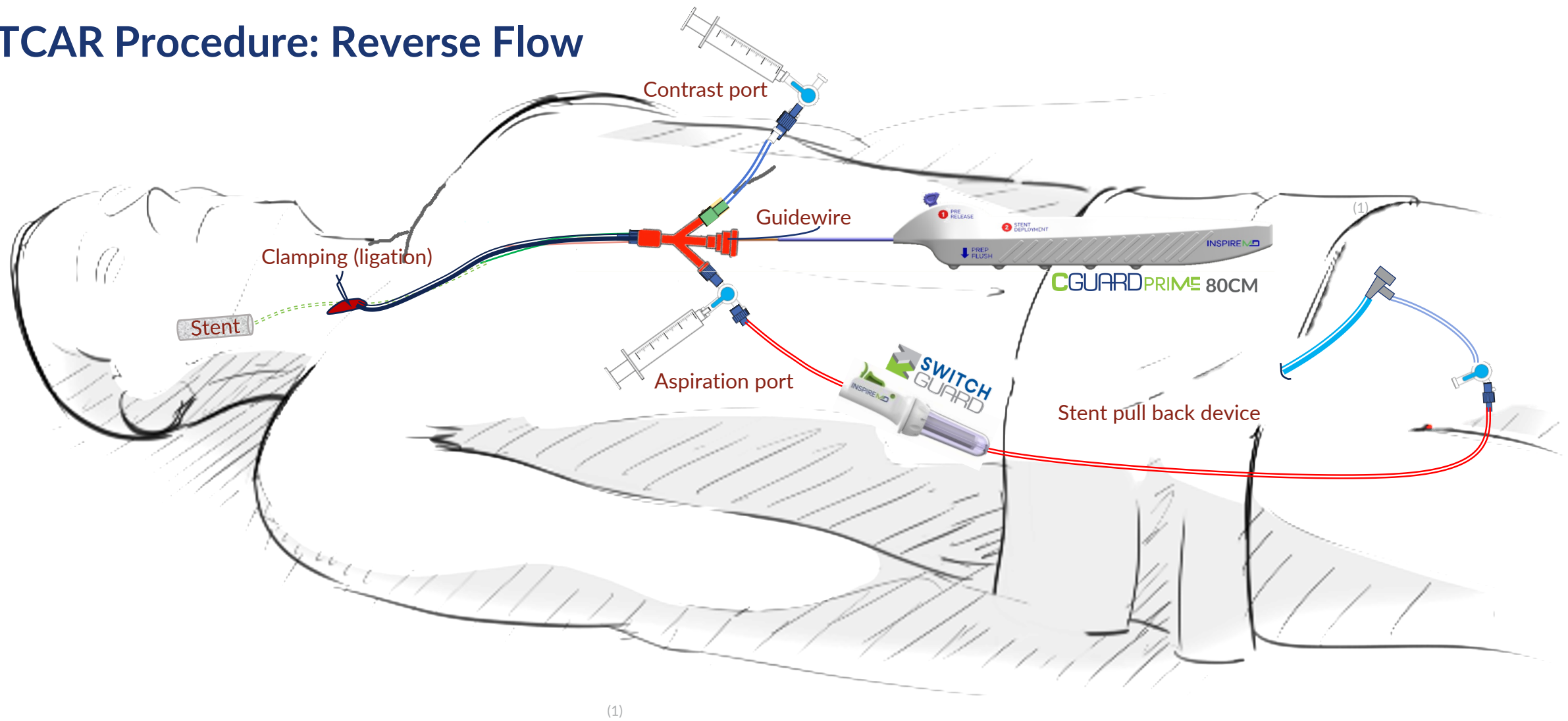
* Hierarchical: patient count (each patient first occurrence of the most serious event).

Non-hierarchical: event count (multiple events in each patient are counted individually).

[^] Per Protocol Analysis excludes 1 patient (did not take dual antiplatelet therapy; had a major stroke and died).

TCAR

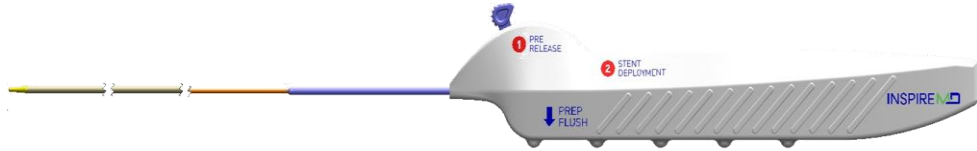
TCAR Procedure: Reverse Flow



SwitchGuard NPS serves Trans carotid (TCAR) Opportunity 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)



80CM
CGUARD**PRIME**



SWITCH
GUARD

TCAR Market Opportunity

>2,600 TCAR-trained physicians in the U.S.¹

>24,000 TCAR procedures (\$170M) projected in the U.S. in 2023, strong double-digit growth projected^{1,2}

InspireMD's C-GUARDIANS II TCAR trial anticipated to commence mid-2024; Potential clearance in H2 2025

¹ SILK reporting

² Piper-Sandler model, 11/8/23

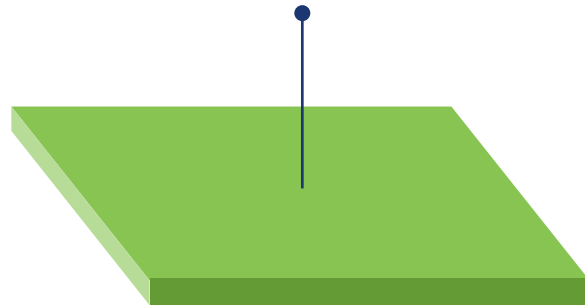
Roadmap + Milestones



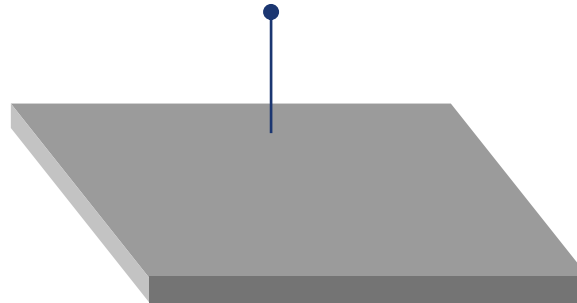
Our Advancement Roadmap / Milestones

Our Expected Key Value Drivers and Strategic Pathways

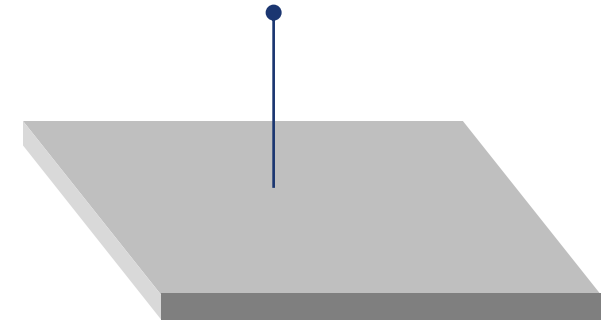
- ✓ **USA Trial Enrollment Complete**
 - Inclusion of CGuard Prime
- ✓ **SwitchGuard 510K Clinical Pre Sub Submission**
- ✓ **Acute Stroke (NGuard) EFS (Early Feasibility Study)**
- ✓ **U.S. Standard Risk Reimbursement**
- ✓ **FDA PMA Submission (Module I)**
- **FDA PMA Submission (Modules II, III and IV)**
- **Initiation of C-GUARDIANS II (TCAR) study**
- **Tandem Lesion EFS for Acute Stroke**
- **China Regulatory Submission**
- **CGuard Prime Commercial Launch (EU)**
- **FDA PMA Approval of CGuard Prime**
- **FDA 510K Clearance of SwitchGuard NPS Kit**
- **U.S. Commercial Launch**



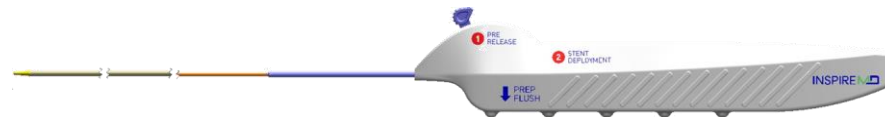
2023



2024



2025



CGUARDPRIME 80

Corporate

Our 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.



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.



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



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.



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.



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.



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 Beta Gamma Sigma Business Honor Society.



Scientific Advisory Board (Multidisciplinary KOLs)



Kenneth Rosenfield, M.D.
Interventional
Cardiologist



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



Chris Metzger, M.D.
Medical Director
Cardiologist

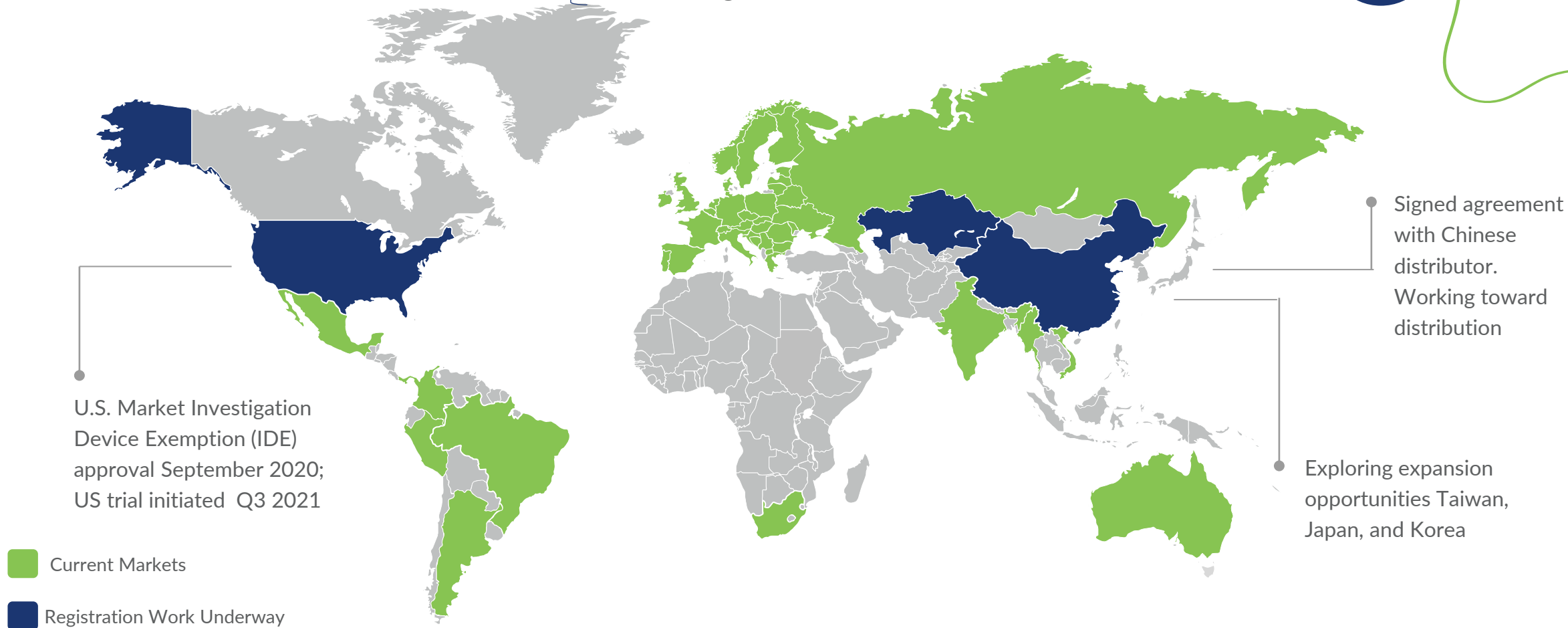


Sean Lyden, M.D.
Vascular Surgeon



Commercial Footprint

- Active selling in more than 30 countries
- Over 45,000 systems sold
- Average CAS Market share of 25%



Our 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

February 9, 2024

NASDAQ Capital Markets

NSPR

Stock Price	\$2.75
Average 3 Month Volume	36.8K
Shares Outstanding	23.5M
Shares Outstanding with Prefunded Warrants	38.7M
Market Capitalization with Prefunded Warrants	\$106.4M
Cash Balance - Sept. 30, 2023	\$43.0M
Debt	\$0M

INSPIREMD



Nasdaq: NSPR