# INVESTOR PRESENTATION

**NYSE MKT: NSPR I OCTOBER 2018**

# Forward Looking Statements

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. 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.

# About InspireMD

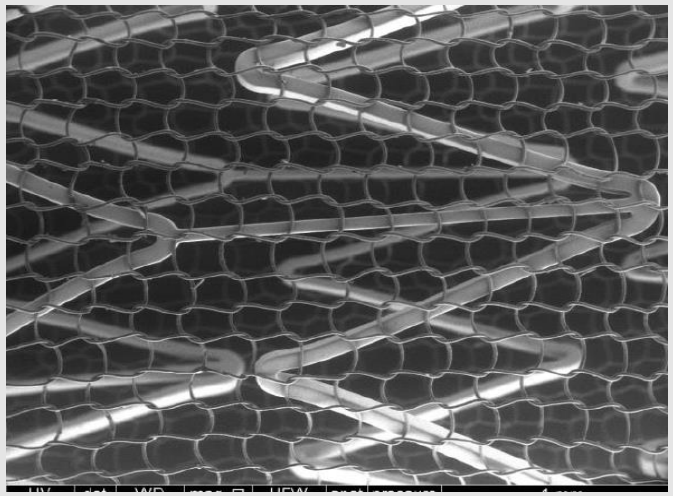
InspireMD is a commercial-stage medical device company developing and marketing innovative embolic prevention systems (EPS) that can prevent harmful consequences, with a primary focus on preventing stroke in patients with carotid artery disease (CAD)

## COMPANY

| | |
|---|---|
| **NYSE AMER:** | NSPR |
| **Employees:** | 39 |
| **Headquarters:** | Tel Aviv |
| **Manufacturing Facility:** | Tel Aviv |

## TECHNOLOGY

Proprietary MicroNet™ technology



## PRODUCTS

| | |
|---|---|
| **Commercial:** | CGuard™ EPS (Carotid) |
| | MGuard™ EPS (Coronary) |
| **Pipeline:** | Next Gen CGuard™ |
| | NGuard™ (Neuro) |
| | PVGuard™ (Peripheral) |

# Company Highlights

| | |
|---|---|
| Lead product, CGuard™ EPS | A potential *paradigm shift* in the treatment of carotid artery disease and stroke prevention<br>Highly differentiated with strong KOL support |
| Benefits demonstrated in multiple trials | Seven completed and four ongoing clinical trials<br>Demonstrates strong benefits versus conventional carotid stents and surgery |
| Commercial-stage with accelerating sales growth | New commercial strategy implemented<br>1H 2018 sales increased 65% YoY<br>1H 2018 CGuard™ EPS sales increased 110% YoY |
| $1bn+ global market opportunity | CE Mark approved; other OUS territories pending (Brazil, Australia)<br>Expect to file US IDE in mid-2019 |
| Capital Structure | Recapitalized the company resulting in a clean capital structure<br>Successfully raise $18MM in 2018<br>Sufficient capital raised to execute on commercial strategy, file US IDE and other pipeline products |
| Strong IP franchise | US: 11 patents issued/allowed, 9 pending<br>RoW: 37 patents issued/allowed, 19 pending |

# Leadership

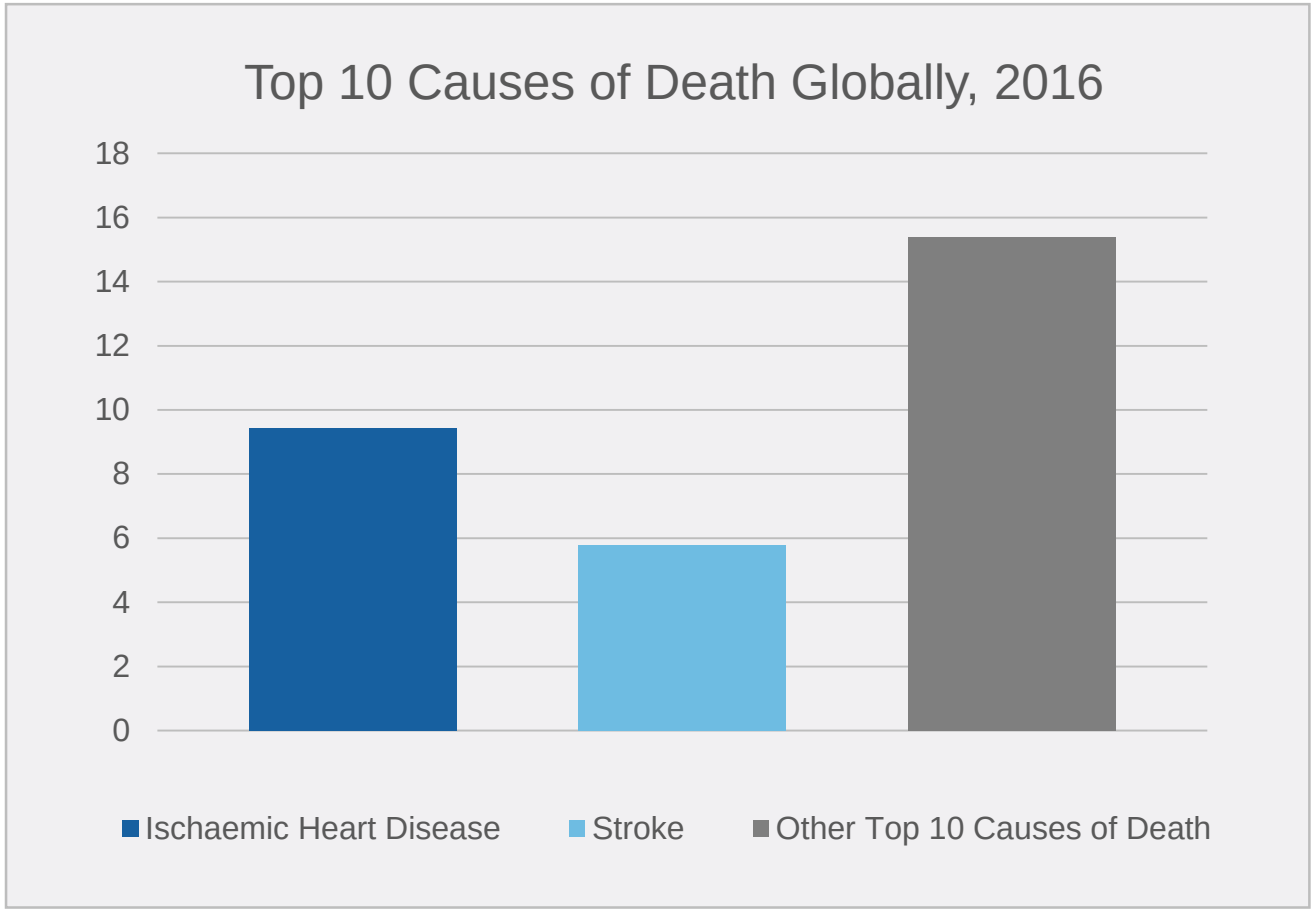
## Significant track records of success

| | |
|---|---|
| **James Barry, Ph.D.**<br>President and CEO | Boston Scientific, Pfizer |
| **Craig Shore**<br>CFO | Pfizer, Bristol-Myers Squibb, GE |
| **Paul Stuka**<br>Chairman | OSIRIS, Fidelity Investments |
| **Michael Berman**<br>Director | Boston Scientific, Velocimed™, LUTONIX |
| **Campbell Rogers, M.D.**<br>Director | HeartFlow, Cordis a Johnson & Johnson company, Harvard Medical School |
| **Thomas Kester**<br>Director | Kester Search Group® Clear objectives. Precise solutions., KPMG |
| **Sol Barer, Ph.D.**<br>Special Advisor to the Board | Celgene, TEVA Pharmaceutical Industries Ltd. |

# Stroke is the Second Biggest Cause of Death

An estimated 15 million people suffer from stroke annually[3]

- 5.7 million deaths[1]
- 5 million people left permanently disabled[3]
- $34 billion associated with stroke management in the US alone[2]




[1] http://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death
[2] Center For Disease Control and Prevention – Stroke Facts – 2017
[3] http://www.emro.who.int/health-topics/stroke-cerebrovascular-accident/index.html

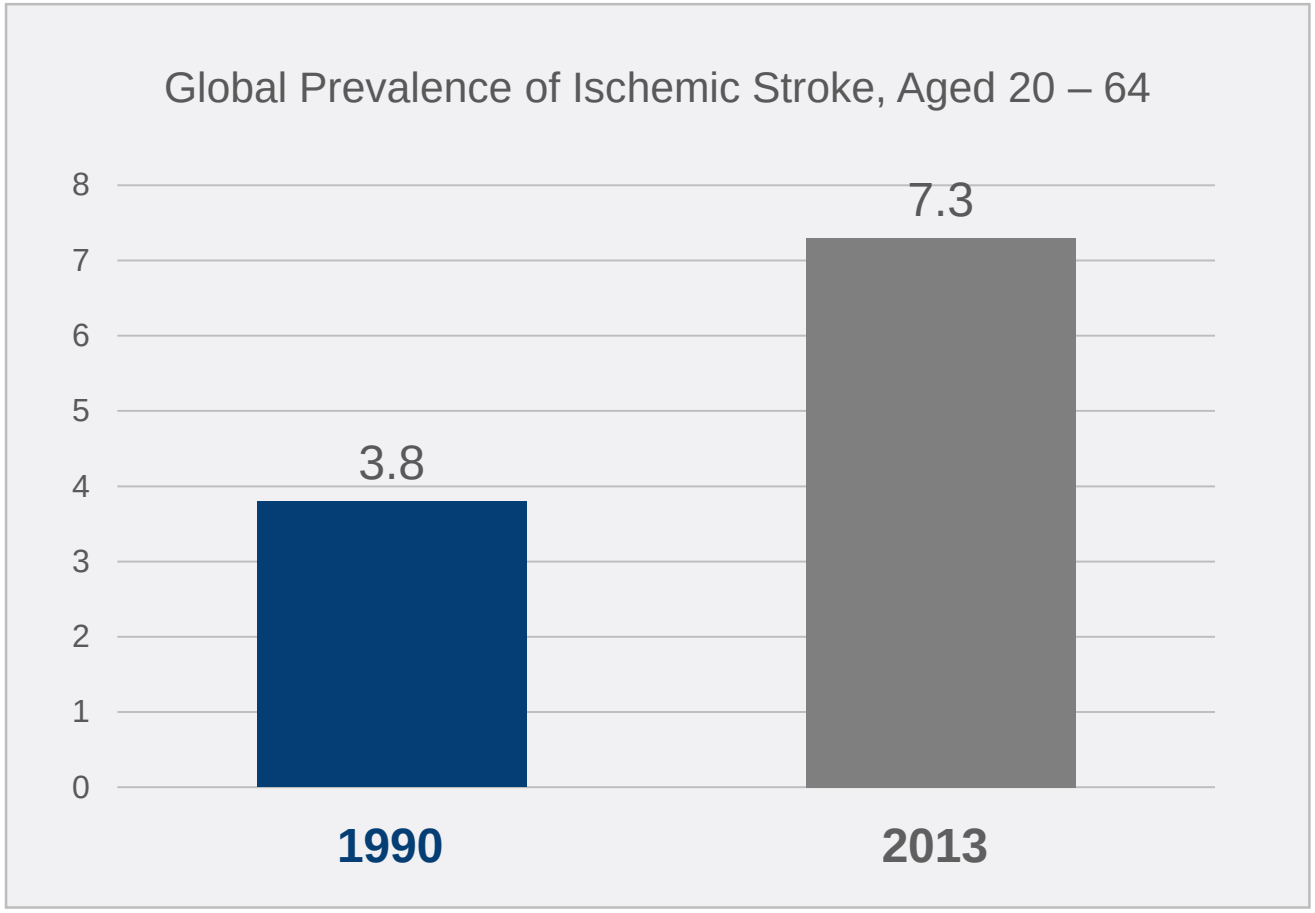
# Stroke Prevalence Increasing Among Young People

**Between 1990 and 2013, there was a significant increase in the global prevalence of ischemic stroke among young people aged 20-64**

Approximately 85% of all strokes are ischemic strokes, which result from a lack of blood flow to the brain

Carotid artery disease (CAD) is a major risk factor for stroke

Approximately 20% of all ischemic strokes are estimated to be caused by CAD (2.2-2.4 million)






[1] Prevalence of stroke in people aged 20-64 (Neuroepidemiology 2015;45:190-20 )

# Unmet Need: A Safer Technology for Stroke Prevention in CAD

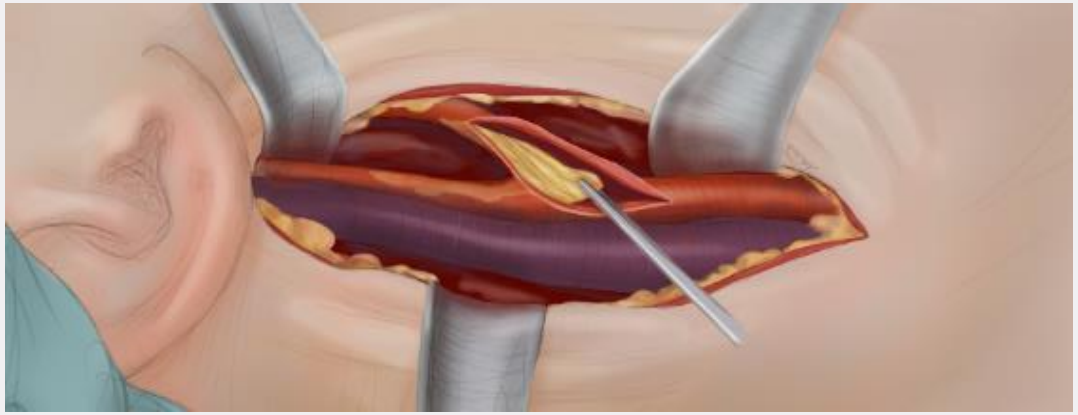
## Surgery vs. Carotid Artery Stenting

### Carotid Endarterectomy (CEA)

**Low stroke risk[1], but…**

Invasive; risk of surgical complications

- Myocardial Infarction[1]
- Risk of cranial nerve injury[2]
- Esthetic concern

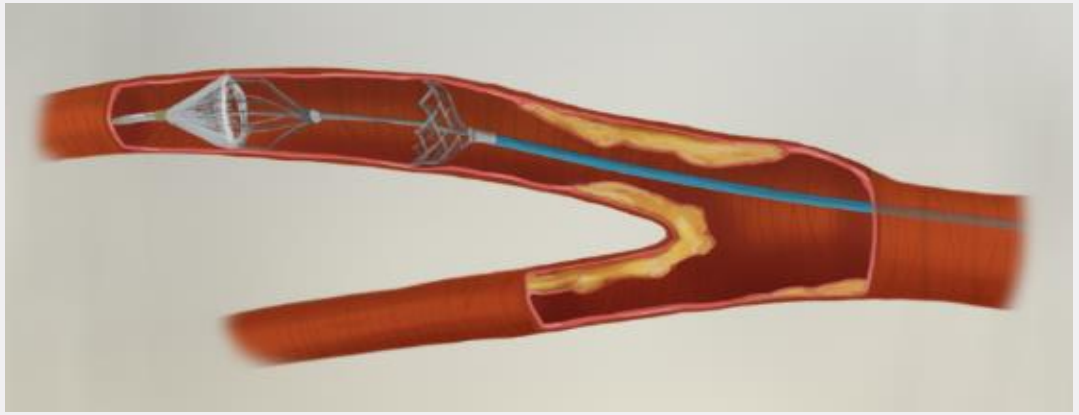


### Filter Protected Stenting (CAS)

**Patient friendly, long-term durability[1],**

Non-Invasive; risk of complications

- Procedural minor stroke risk (with conventional stents)[1]
- Post-procedural minor stroke risk (with conventional stents)[1]



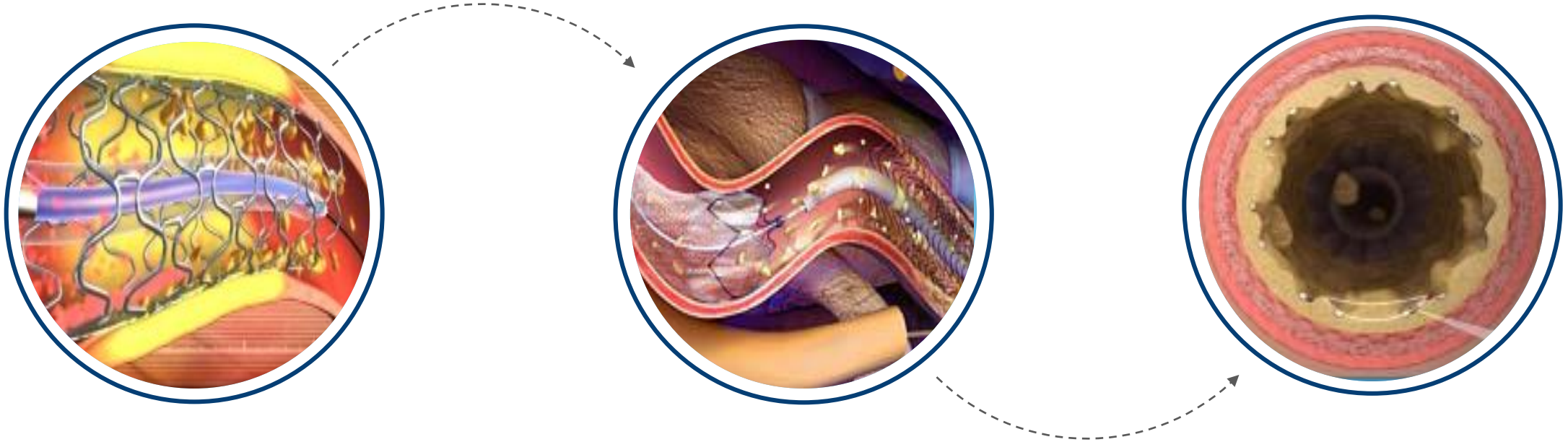
Based on the CREST clinical trial data, in which only conventional carotid stents were used



1CREST Trial: N Engl J Med 2010;363:11-23, 2 Circulation. 2012;125:2256-2264, CREST: 2.1% unresolved facial nerve at 6 months 2 (80% motor)

# Embolization Following Carotid Artery Stenting

Plaque protrusion through stent struts occurs in up to 65% of conventional carotid stents, depending on plaque morphology/symptomatic status and stent type. The consequence is cerebral embolization, either directly or via additional thrombus formation.



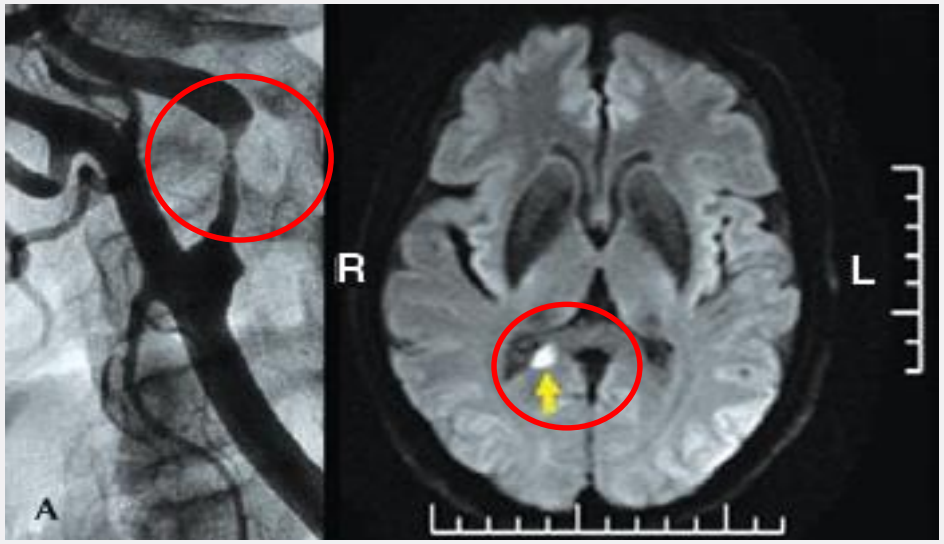
2/3 of CAS neurovascular events (stroke, TIA) are POST-procedural.**



* Musialek, et.al. Eurointerventions 2016;12 August 2016., ** Bosiers et al. Eur J Vasc Endovasc Surg Vol 33, Feb 2007., https://biotextiles2015.wordpress.com/embolic-protection-device/

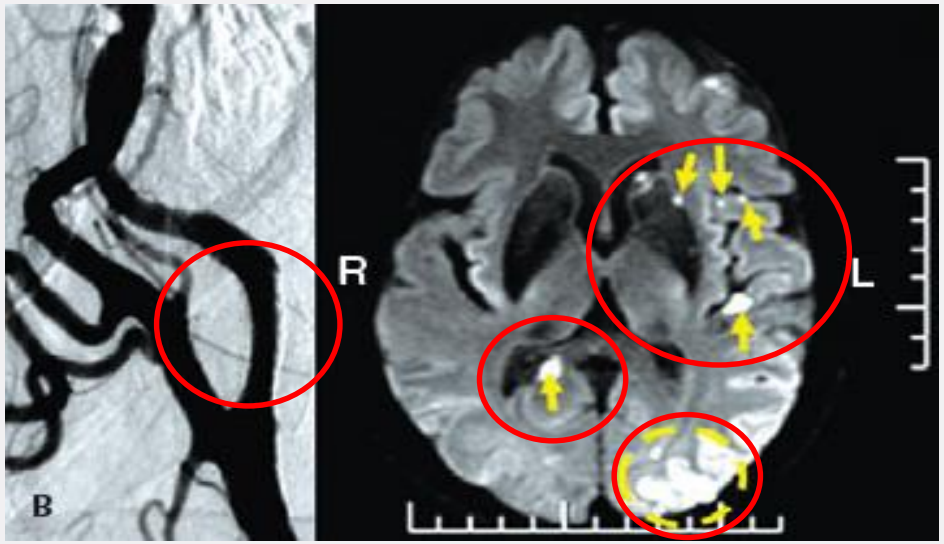
# Consequences Range from Neurological Deficit to Stroke

## Pre-Procedure




Pre-intervention showing 90% occlusion of the carotid artery and an MRI showing an old white matter infarction (obstruction).

## Post-Procedure



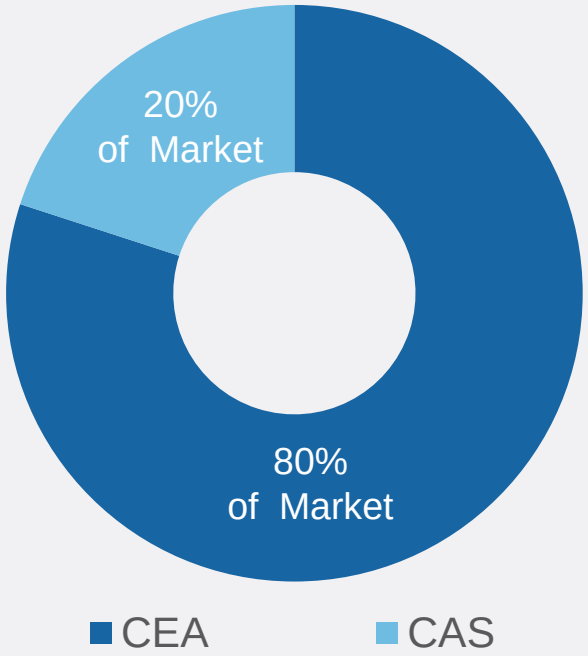

Post-intervention showing successful opening of the occluded carotid artery with conventional stenting and an MRI showing multiple micro-infarcts (obstructions) post-procedure due to liberation of embolic particles.



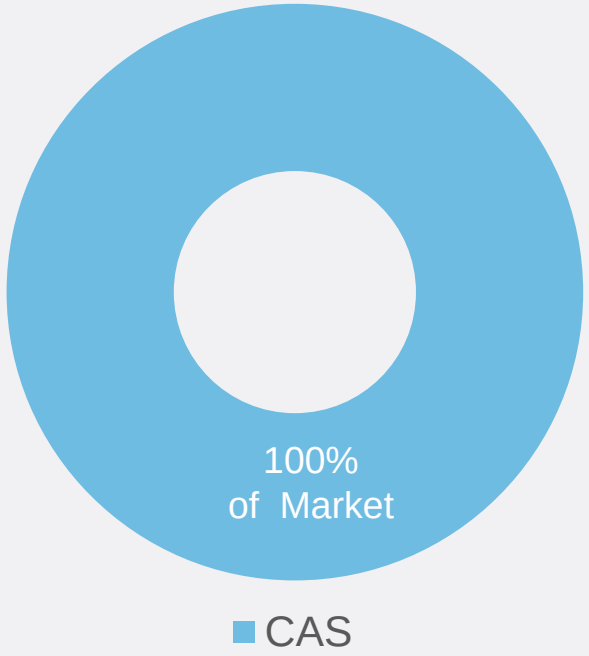
Cano et al. Rev Bras Cardiol Invasiva 2013; 21(2): 159-64.

# A Billion Dollar Market Opportunity

Carotid procedures today are primarily surgical




Carotid procedures tomorrow could be mostly minimally invasive with CGuard™

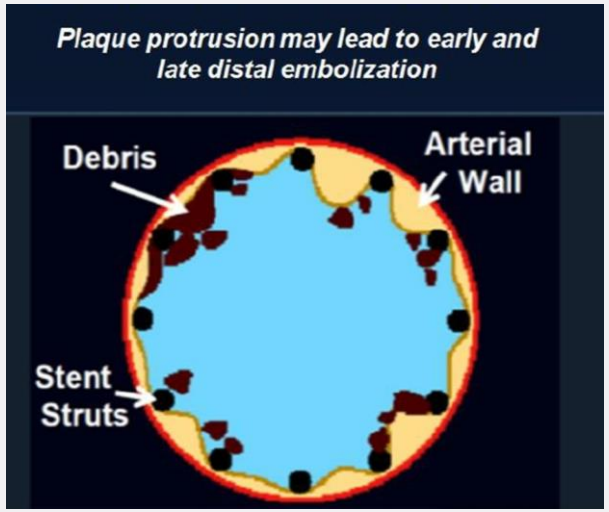



- 2.2M diagnosed with carotid artery disease
- 2017: ~600,000 patients with high grade carotid stenosis (HGCS) require interventions for CAD
- At present, ~80% are surgically treated with carotid endarderectomy (CEA)
- At a price of $1,650 per stent, the addressable market is more than $1 billion

MicroNet™ covered stents could become the Gold Standard

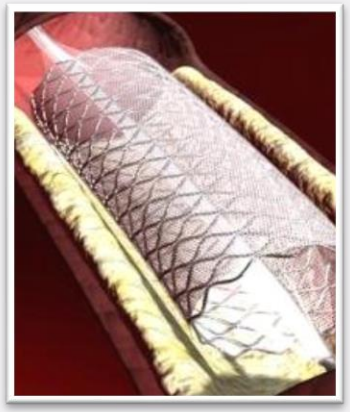
# The InspireMD Solution: CGuard™ EPS

## Conventional Carotid Stent




Carotid plaque can protrude through the stent struts

## CGuard™ EPS



- The MicroNet™ **permanently covers** plaque and stops “debris” from passing through the mesh.
- Ultrathin PET mesh made of a single 20 micron fibre from a biocompatible polymer - widely used in other medical implants
- MicroNet™ acts as a “safety net” with greater vessel area coverage to prevent plaque protrusion through the stent into the blood vessel

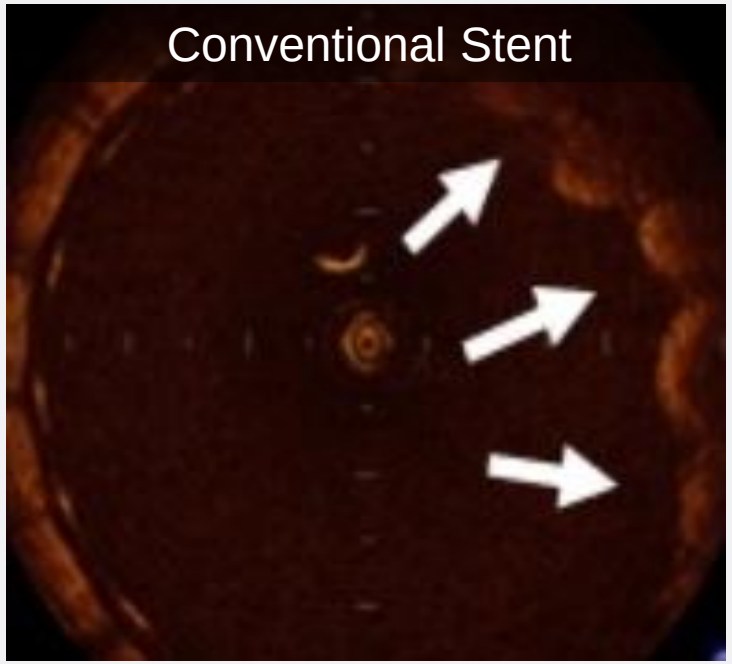
CGuard™ EPS has been shown to prevent embolic debris passing into the carotid artery

Image presented at TCT 2014
https://www.tctmd.com/conference/tct-2014 https://www.nyp.org/locations/newyork-presbyterian-columbia-university-medical-center

# The InspireMD Solution: CGuard™ EPS

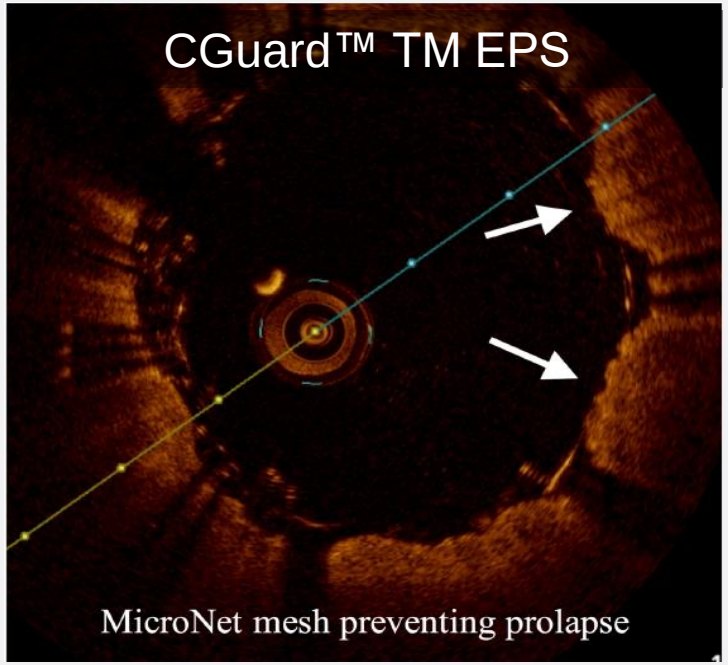
## Conventional Carotid Stents [1]

No plaque coverage - leading to plaque protrusions or prolapse passing into the vessel lumen




## CGuard™ EPS 2

The MicroNetTM permanently covers plaque and prevents “debris” from passing through the mesh.




1. Yoshimura, et al. J A C C : Cardiovascular Imaging 4; 4, 2011 : 43 2-6
2. Umemoto. et.al. Eurointervention 192 2017

# Positive CGuard™ Clinical Experience

| CARENET Clinical Trial (2014) |
|---|
| 30 Patient Safety and Efficacy clinical trial |
| **Zero major adverse cardiac or cerebral events (MACCE)** at 30 days (Comparative data 5.72%*) |
| **50% fewer new ischemic lesions** with lesion volume being 10x times smaller compared to historical non-mesh carotid artery stenting data |
| **All new ischemic lesions fully resolved at 30 days** except one |
| 3.6% MACCE rate at 6 months (Comparative data 8.09%**) |
| **Zero strokes or stroke related deaths at 12 months** |

| PARADIGM 101 Clinical Trial (2015, 2016, and 2018) |
|---|
| 101 patient trial evaluating CGuard EPS in unselected, consecutive carotid patients (all-comers) |
| **99.1% device success** |
| **0% MACCE (Death/stroke/MI) @ 48 hr** |
| **0% MACCE @ 30 day (1 minor stroke resolved by discharge)** |
| **No device-related adverse events and no procedure-related events at 24 months*** ** |
| **Sustained stroke prevention at 24 months** |

"CGuard can safely be used on more than 90% of all-comer patients that have carotid artery stenosis."

- P. Musialek, MD

InspireMD

* Trials included in analysis: ARCHeR pooled, ARMOUR, BEACH, CABERNET, CREATE, EMPIRE, EPIC, MAVErIC 1+2, MAVErIC International, PRIAMUS, SAPPHIRE, SECURITY, PROFI, ICSS
** Values extrapolated from event curves
*** Musialek, ICCA 2018

# Independent Clinical Validation

Independent study conducted in 30 patients with internal carotid artery disease

## Clinical results (2016)

- **100% success** in implanting the CGuard™ EPS
- No peri- or post-procedural complications
- **No deaths, major adverse events, minor or major strokes**, or new neurologic symptoms during the six months following the procedure
- All vessels treated with the CGuard™ system remained patent (open) at six months
- DW-MRI performed in 19 of 30 patients found **no new ipsilateral lesions after 30 days and after six months** compared with baseline DW-MRI studies

"CGuard EPS is an important new treatment option for both symptomatic and asymptomatic carotid artery stenosis patients."

- C. Wissgott, MD

Clinical Investigation

JOURNAL OF ENDOVASCULAR THERAPY

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

Journal of Endovascular Therapy 1–8
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DOI: 10.1177/1526602816671134
www.jevt.org
SAGE

Christian Wissgott, MD[1], Wolfram Schmidt, PhD[2], Christoph Brandt-Wunderlich, MSc[2], Peter Behrens, MSc[2], and Reimer Andresen, MD[1]

**Abstract**

**Purpose:** To report early clinical outcomes with a novel double-layer stent for the internal carotid artery (ICA) and the in vitro investigation of the stent's mechanical properties. **Methods:** A prospective single-center study enrolled 30 consecutive patients (mean age 73.1±6.3 years; 21 men) with symptomatic (n=25) or high-grade (n=5) ICA stenosis treated with the new double-layer carotid CGUARD Embolic Prevention System (EPS) stent, which has an inner open-cell nitinol design with an outer closed-cell polyethylene terephthalate layer. The average stenosis of the treated arteries was 84.1%±7.9% with a mean lesion length of 16.6±2.1 mm. In the laboratory, 8×40-mm stents where tested in vitro with respect to their radial force during expansion, the bending stiffness of the stent system and the expanded stent, as well as the collapse pressure in a thin and flexible sheath. The wall adaptation was assessed using fluoroscopy after stent release in step and curved vessel models. **Results:** The stent was successfully implanted in all patients. No peri- or postprocedural complications occurred; no minor or major stroke was observed in the 6-month follow-up. The bending stiffness of the expanded stent was 63.1 N·mm$^2$ and (not unexpectedly) was clearly lower than that of the stent system (601.5 N·mm$^2$). The normalized radial force during expansion of the stent to 7.0 mm, consistent with in vivo sizing, was relatively high (0.056 N/mm), which correlates well with the collapse pressure of 0.17 bars. Vessel wall adaptation was harmonic and caused no straightening of the vessel after clinical application. **Conclusion:** Because of its structure, the novel CGUARD EPS stent is characterized by a high flexibility combined with a high radial force and very good plaque coverage. These first clinical results demonstrate a very safe implantation behavior without any stroke up to 6 months after the procedure.

**Keywords**

carotid artery stent, closed-cell design, double-layer stent, embolic filter, internal carotid artery, in vitro testing, mechanical behavior, nitinol, open-cell design, radial force, stenosis, stent

**Introduction**

Several studies have demonstrated that carotid artery stenting (CAS) of the extracranial internal carotid artery (ICA) is a well-established and equally good option for treating atherosclerotic carotid stenoses in comparison with carotid endarterectomy (CEA).[1,2] Although CEA is still considered the gold standard therapy of carotid stenoses[3,4] because of a lower risk of procedure-related and periprocedural nondisabling stroke, stent implantation is a valuable treatment option because of its less invasive character.[5,6]

Despite the fact that procedure-related events can be caused by lesion crossing and pre-/postdilation,[7,8] particular attention has been focused on the stent design because postprocedure diffusion-weighted magnetic resonance imaging (DW-MRI) lesions were more numerous in patients treated with an open-cell stent vs a closed-cell stent.[9,10]

The perfect stent should safely cover the plaque for sustained embolic protection like an ultra–closed-cell stent and show high flexibility and conformability like an open-cell stent.[11] The first reports of a closed-cell stent with double nitinol layers showed promising clinical results with respect to its implantation behavior based on the closed-cell design.[12,13] This article presents the clinical results

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Wissgott, et.al. J Endovasc Ther 2016.

# Independent Clinical Validation (continued)

## The Iron-Guard Registry

- Physician initiated
- 12 large Italian medical centers
- 200 patients

## Clinical Results

- **100% success** in implanting the CGuard EPS
- **No major adverse cerebrovascular cardiac events** at 30 days
- DW-MRI performed in 61 of 200 patients found **only 19% new lesions** between 24-72 hours
  - CARENET reported 37% new lesions in 30 patients
  - PROFI reported 66% new lesions in 62 patients


*"The IRON-Guard Registry shows promising results in this interim analysis with a low incidence of complications and the lowest reported rate of new MRDWI lesions*
F. Spezaile, MD and P. Sirignano, MD

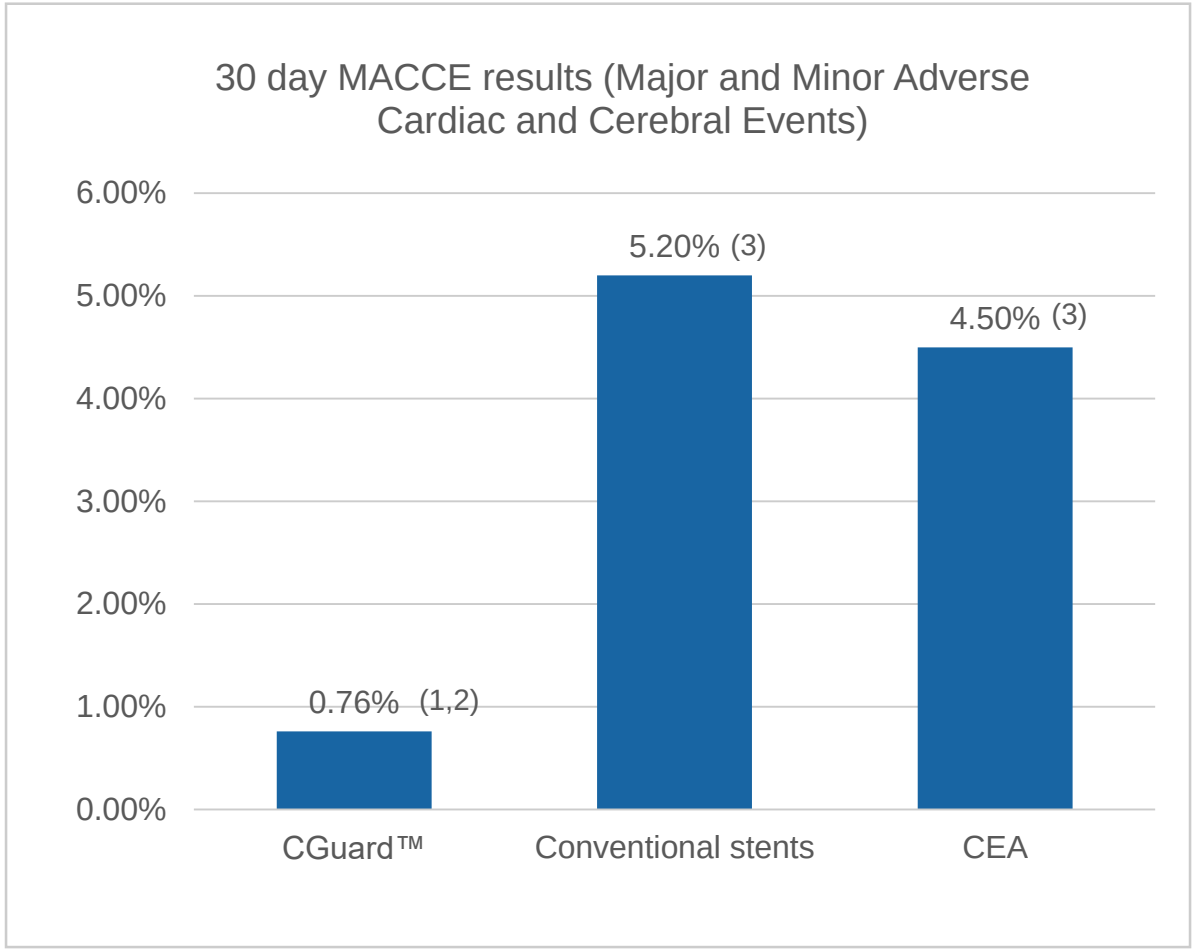

SPECIAL ARTICLES
J CARDIOVASC SURG 2015;56:787-91

*Physician-initiated prospective Italian Registry of carotid stenting with the C-Guard mesh-stent: the IRON-Guard registry. Rationale and design*

C. SETACCI [1], F. SPEZIALE [2], G. DE DONATO [1], P. SIRIGNANO [2]
F. SETACCI [2], L. CAPOCCIA [2], G. GALZERANO [1], W. MANSOUR [2]
On behalf of IRON-Guard Study Group.

# CGuard™ vs Conventional Stents and Surgery

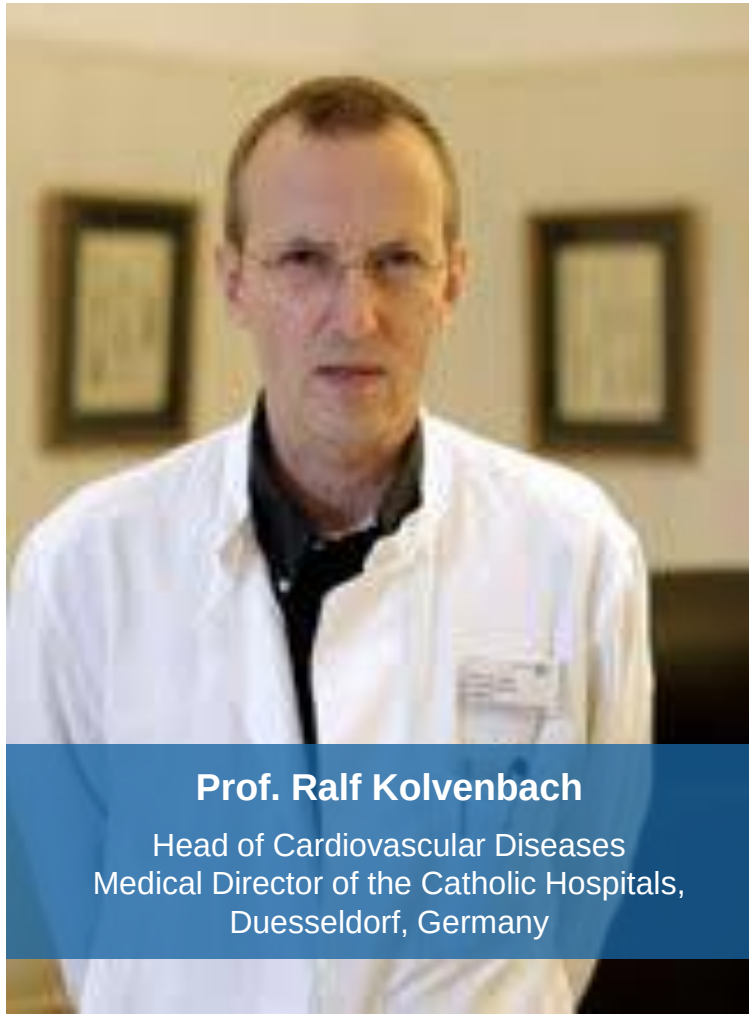
- CGuard™ has a superior profile versus historical data on both carotid stents and surgery
- CGuard™ is a next-generation stent supported by a strong and growing body of clinical data
  - 7 completed clinical trials and 4 ongoing trials
- Long term sustained and consistent benefit (MACCE 0.9% @ 12 months)[4]




*NOTE: *IRON-GUARD, Wisggott and Casana trials are not included in this calculation of the CGuard data as these trials were not independently monitored*

1. JACC Cardiovasc Interv 2015 Aug 17. 8:1229-1234 2.EuroIntervention 2016 Aug 05. 658-70 3.N Engl J of Med 2010 July 1. 11-23 4.Musialek et. al. TCT 2016 Featured Research Presentation

# A Leading Vascular Surgeon's View



**Prof. Ralf Kolvenbach**

Head of Cardiovascular Diseases
Medical Director of the Catholic Hospitals,
Duesseldorf, Germany

*"The CGuard™, in comparison to other [carotid] stents, even in comparison to other mesh covered stents, is a very easy to use device. Very simple, you take it off the shelf and you use it and that's it."*

*"Patient risks associated with stenting using CGuard™ are far lower than those associated with CEA or with other types of carotid stents.*

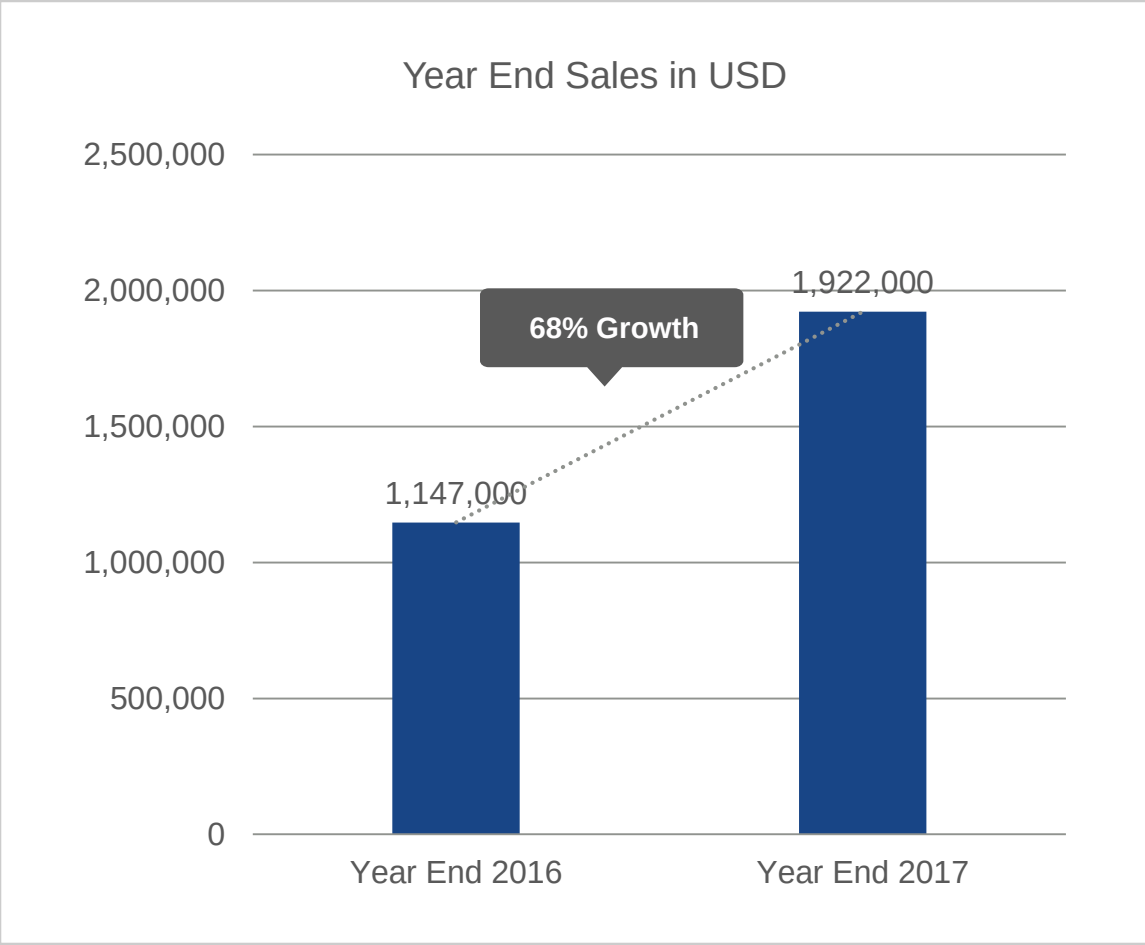
*"CGuard™ will become a major factor in preventing strokes caused by carotid artery disease."*

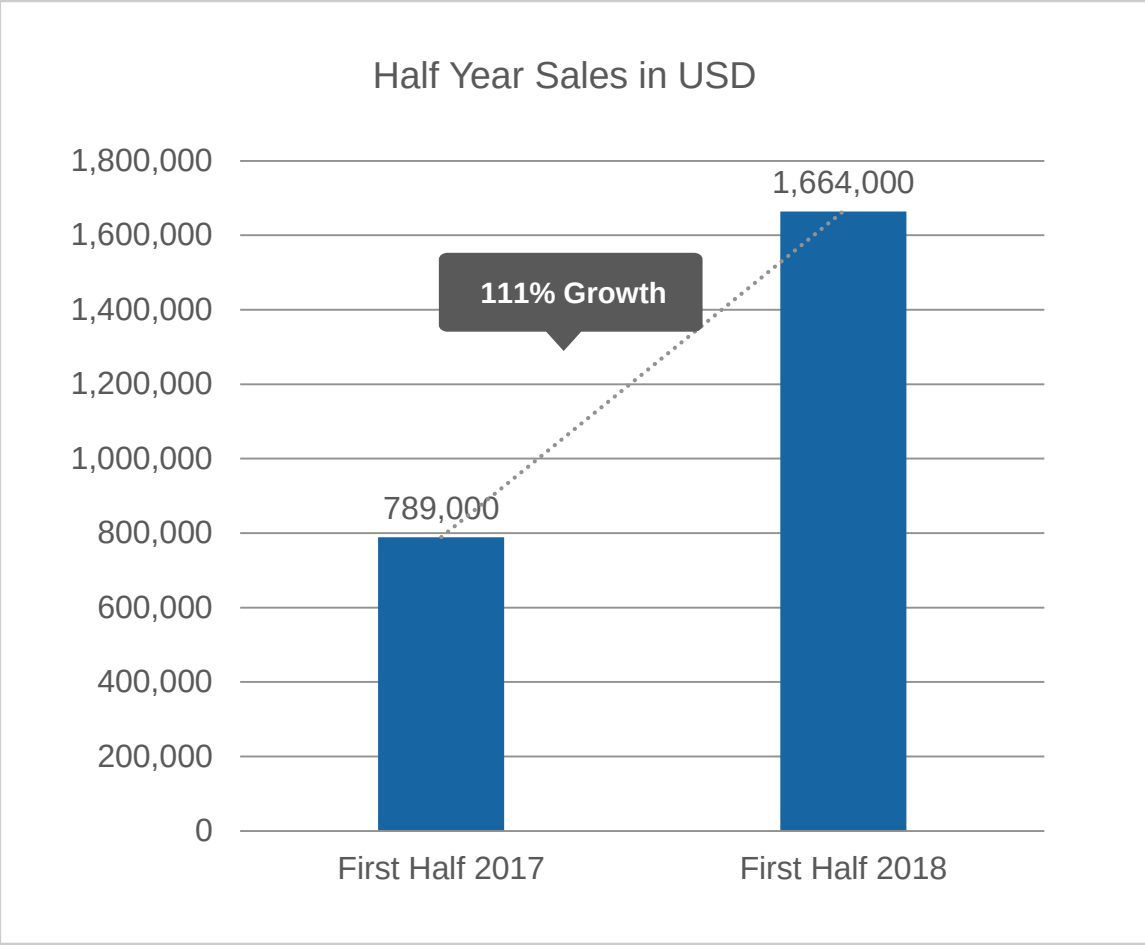
*"With CGuard™ we can get excellent results, probably better than open surgery, the Gold Standard"*

https://www.youtube.com/watch?v=A-FNpvP8PVQ

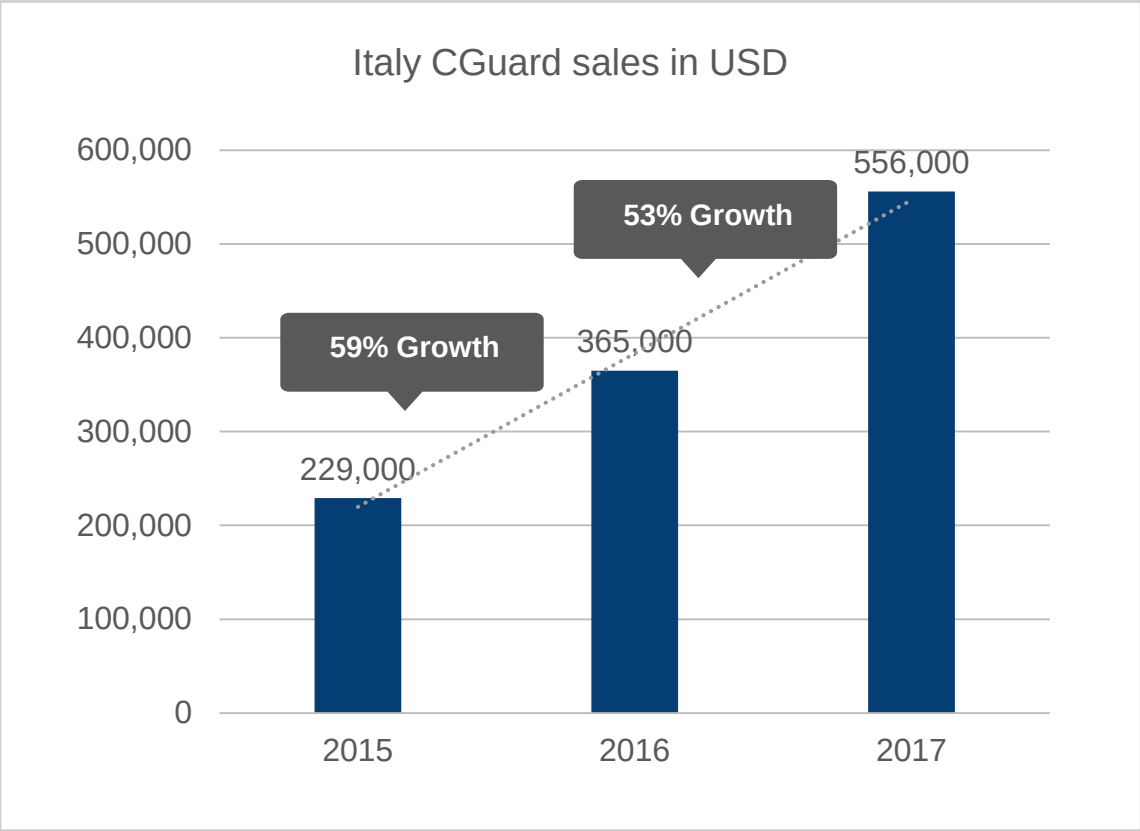
# CGuard™ - Accelerating Sales Growth

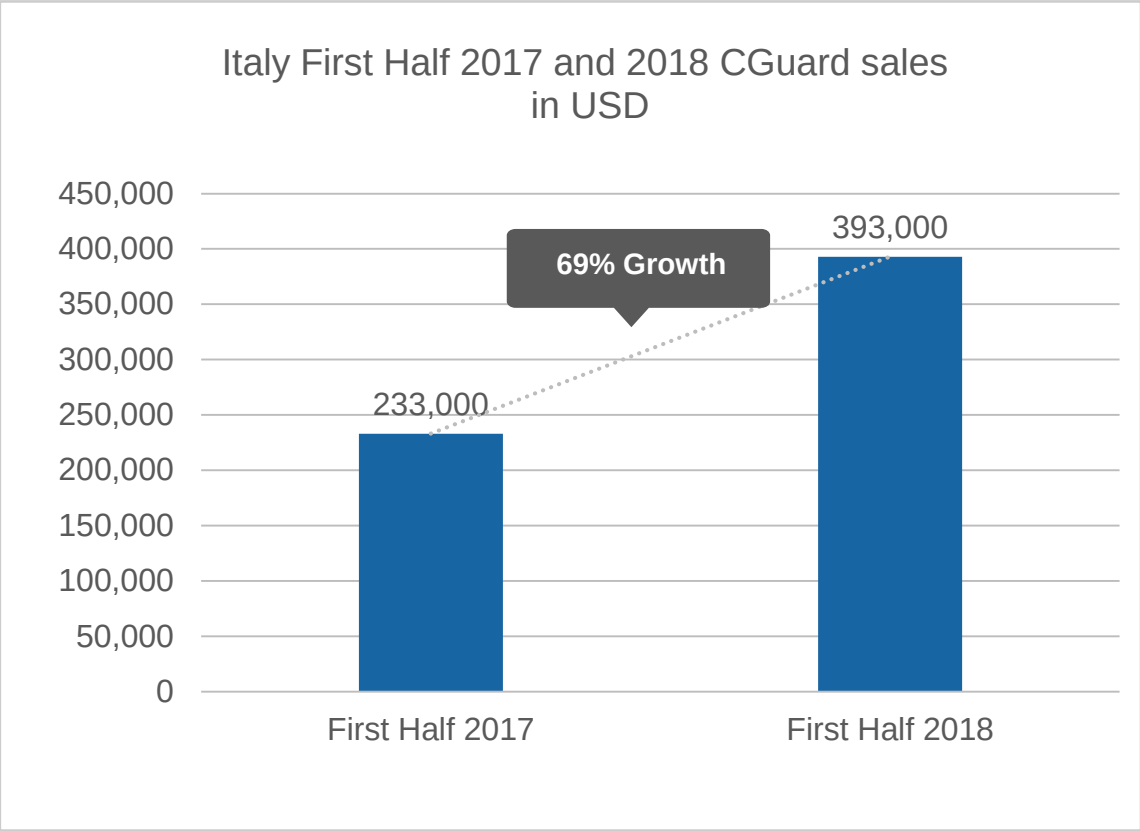
## Growth continues to accelerate for 2018/2017



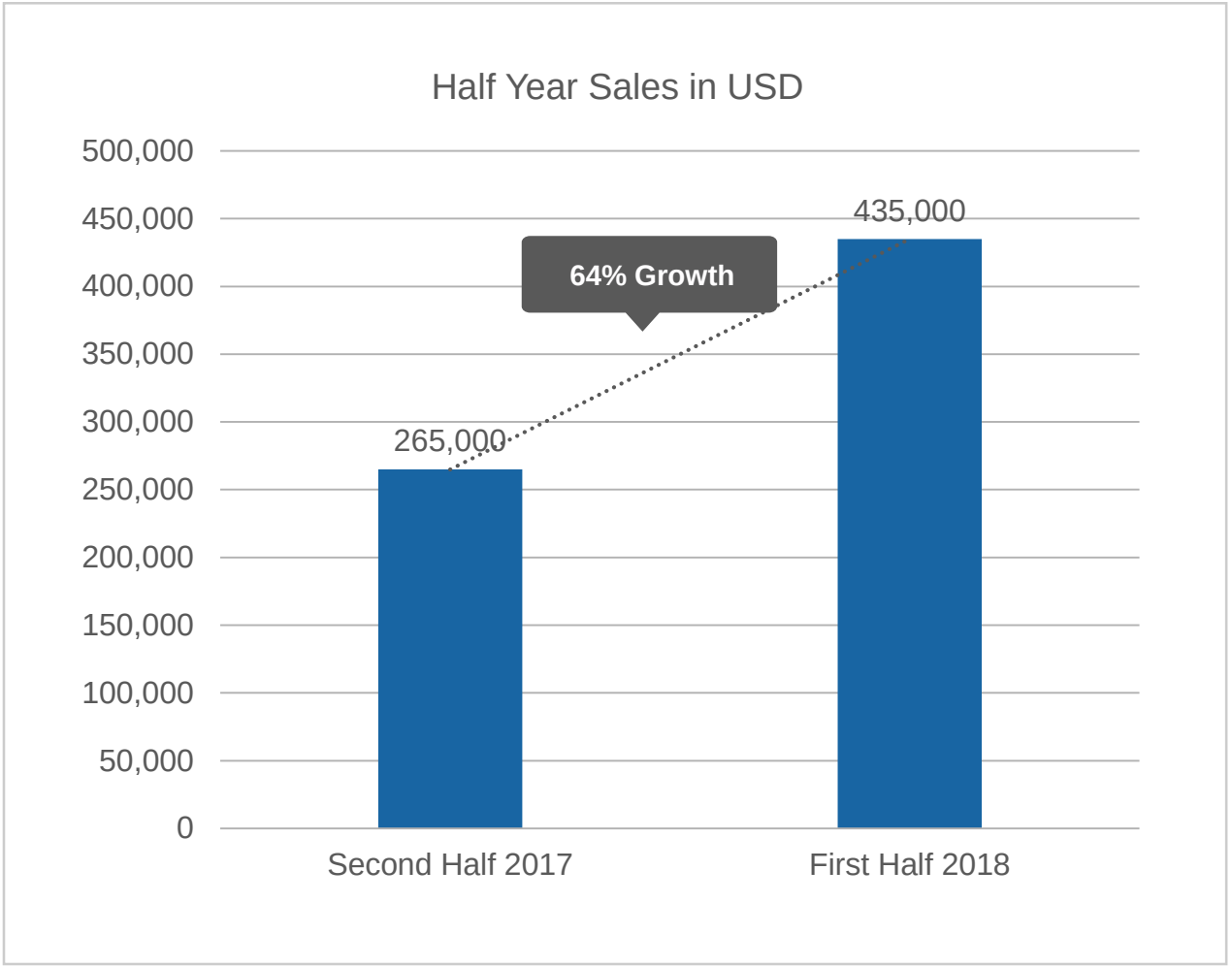
# Accelerating CGuard™ Sales Growth: Italy




- CGuard™ sales in Italy have been strong over the last three years with continuing momentum
- Q2 comparisons between 2017 and 2018 show a 69% increase

# Accelerating CGuard™ Sales Growth: Germany

# Addressable Stroke Prevention Device Market

13mn people globally with high grade carotid stenosis (HGS)

2.2mn people with HGS diagnosed

~600,000 received surgical/stent treatment

Untapped market: At least 1.6mn patients could be helped by CGuard

Plus roughly 10mn people who are undiagnosed

2017: ~600,000 patients with high grade carotid stenosis (HGCS) require interventions for CAD. At present, ~80% are surgically treated with carotid endarderectomy (CEA)

The balance are treated with conventional carotid stents (CAS) with an average of 1.05 stents/procedure

At a price of $1,650 per stent, the addressable market is more than $1 billion

# Commercial Strategy

**Transition current users of conventional carotid stents to CGuardTM**

Communication of CGuard™ clinical data

Continue to support investigator initiated clinical registries

Engage advisory board, further develop network of KOLs, establish centers of excellence

**Transition Vascular Surgeons to CGuardTM**

Advisory boards, surgeon specific clinical registries, centers of excellence

Publish, present, and communicate data demonstrating that CGuard™ is as safe as CEA

Establish a presence at major vascular surgery meetings

Expand digital, social and other tools to more effectively communicate

Partner with appropriate societies focused on stroke

**Expand footprint in existing geographical areas**

Focus on larger growing markets – Germany, Italy, Poland

Support regional clinical and clinical specialty registries to build on the clinical database and broaden support

Initiate discussions with NICE (National Institute for Clinical Excellence) in the UK who set clinical guidelines

**Continue geographical expansion where strategically relevant**

Continued focus on markets where a CE mark is already in place

Increase efforts in China and Japan

Submit US IDE

# CGuard™ Product Development

| | |
|---|---|
| US FDA | • Pre-IDE FDA submission for CGuard™ February 2017<br>• Formal FDA meeting held April 2017<br>• 9 months of pre-clinical work required to file IDE application to begin a US clinical trial |
| Next generation CGuard™ - 5 French CGuard™ | • Minimally invasive devices trending smaller for broader usage<br>• Advantageous in the Asia Pacific markets<br>• Transradial delivery (delivery from the wrist vs. femoral artery) gaining favor among interventionalists |
| Evaluating synergistic opportunities | • Proactively evaluating synergistic opportunities to further broaden the product portfolio and take advantage of the global distribution network that has been developed |

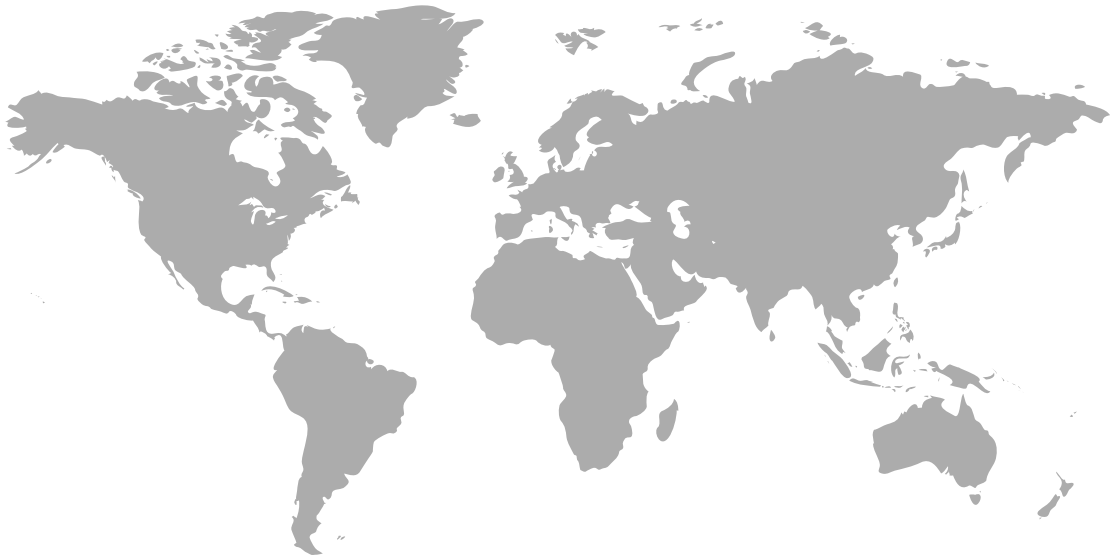
# Recent/Upcoming Anticipated Milestones

## Continued clinical trial/registry results


Continued market execution and revenue growth

# Intellectual Property Portfolio

| PATENT RIGHTS | ISSUED | ALLOWED | PENDING |
|---|---|---|---|
| **USA** | 8 | 3 | 9 |
| **Rest of World** | 35 | 2 | 19 |



Proprietary platform technology supported by a robust intellectual property portfolio

Continue to strengthen and broaden patent protection globally to enable future pipeline products

# Summary Financials

| NYSE AMER | NSPR |
|---|---|
| Stock Price (10/5/18): | $0.27 |
| Average three month daily trading volume: | 3.4 M |
| Shares outstanding (10/5/18): | 37.0 M |
| Shares Outstanding Including full conversion of preferred shares and prefunded warrants (10/5/2018): | 44.7 M |
| Market Capitalization including full conversion of preferred shares and prefunded warrants (10/5/2018): | $12.1 M |
| Cash (9/30/18) | $11.2mn |

# Summary

- Focused on the deadly and catastrophic problem of stroke that is estimated to cost the healthcare system more than $34BB annually in the US alone
- The current addressable market for CGuard ™ EPS is estimated to be $1BB with the potential to further expand into the 1.6MM patient population which is diagnosed but not treated
- Currently, vascular surgeons treat the majority of patients with carotid artery disease:  Focus will be on converting the vascular surgeons to use CGuard™ EPS
- Strong and consistent clinical data continues to validate the safety profile of CGuard™ EPS even in a large “all comer” patient population with data indicating sustained benefit out to 2 years
- New commercial strategy beginning to take hold as indicated by sales growth over the last year
- Increasingly more presentations and live clinical cases with CGuard™ EPS are featured at major and regional clinical conferences
- Product pipeline to support continued growth in all geographies, including the United States

InspireMD

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