

Silver Bullet has developed an effective antimicrobial platform based on proprietary silver ionization technology designed to prevent contamination associated with medical device implants.

THERE IS A SIGNIFICANT CLINICAL NEED TO PREVENT BACTERIA FROM CONTAMINATING MEDICAL DEVICES DURING IMPLANTATION. If the surgical site of the medical device is contaminated during the implantation of a medical device, postoperative complications could compromise the patient after surgery has taken place. For example, the incidence of surgical-site infection (SSI) for orthopedic or trauma operations has been reported as low as 3% (source: Int Surg. 2014 May-Jun; 99(3): 264–268) and as high as 25% (source: NHS Commissioning Board 2013). It should come as no surprise, then, that the average cost of an orthopedic SSI revision surgery is about \$62,000 per case (source: Keynote presentation, Feb. 2013, American Skull Base Society Meeting, Vinod Sahney, Ph.D.). Consequently, antimicrobial medical devices can affect the needs to reduce postoperative morbidity and potential mortality, which could lead to potential cost-savings from reduced complications across numerous surgical specialties.

SILVER BULLET HAS DEVELOPED ONE OF THE FIRST SILVER ION-ELUTING PLATFORMS DESIGNED SPECIFICALLY FOR MEDICAL DEVICES. The Silver Bullet coating applied to implantable medical devices is a combination of platinum and silver. When the coating interacts with the body, it causes a "galvanic" reaction wherein the silver ionizes, creating a localized "cloud" of silver ions that surrounds the implanted device and acts as a deterrent to bacterial colonization. The first application of the proprietary coating is a titanium screw system called the OrthoFuzlon® Bone Screw System. The coated OrthoFuzlon Bone Screws have demonstrated particular success against the *Top Six* antibiotic-resistant "superbugs." These bacteria include: Carbapenem-resistant Enterobacteriaceae (CRE); Klebsiella pneumoniae; Methicillin-resistant Staphylococcus aureus (MRSA); ESBL-producing Enterobacteriaceae (extended-spectrum β-lactamases); Escherichia coli (E. coli); Vancomycin-resistant Enterococcus (VRE); Enterococcus faecium; Multidrug-resistant Pseudomonas aeruginosa: and Multidrug-resistant Acinetobacter baumannii.

## ☐ CMS'S "BUNDLED PAYMENTS FOR CARE IMPROVEMENT" (BPCI) MAY BE A DRA-MATIC DRIVING FORCE FOR MARKET ADOPTION OF THIS PROPRIETARY TECHNOLOGY.

CMS's BPCI initiative was up and running as of July 1, 2016, which is potentially great news for Silver Bullet. Traditionally, Medicare makes separate payments to providers for each of the individual services they furnish to patients for a single illness or course of treatment. For example, if a given surgery develops post-surgery infection, that means two or more separate billing opportunities for providers. Payment thus rewards the **quantity** of services offered by providers rather than the **quality** of care furnished. Research has shown that "bundled" payments which are staggered based on start-to-finish outcome success per case can align incentives for providers – hospitals, post-acute care providers, physicians, and other practitioners – incentivizing them to work closely together across all specialties and settings. The availability of antimicrobial implantable devices would presumably be looked upon very favorably by healthcare providers.

## **CONTACTS & KEY INFORMATION**

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Website www.svbtx.com
Ownership Privately held

**Investors** Private, mostly physicians

Industry Medtech

Proprietary Platform

Silver Bullet's proprietary and bioresorbable "galvanic" coating is designed to interact with the body to release a "cloud" of antimicrobial silver ions into the local area surrounding the implanted device.

A Few Examples of Numerous Stakeholder Benefits Patients: Contamination during medical device implantation can be deadly... and costly. Medical Professionals: Hospitals and physicians will be able to offer their patients implants designed to be antimicrobial. Private insurers/Health Care Providers:

With the advent of CMS' BPCI initiative, providers will likely prefer antimicrobial implants.

Regulatory Status The first approved use of the proprietary technology is the OrthoFuzlon® Antimicrobial Bone Screw System\*

## LEADERSHIP TEAM

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\*-The OrthoFuzlon Bone Screw System is not cleared for sale in the U.S.

## SILVER BULLET'S PROPOSED PIPELINE OF ANTIMICROBIAL IMPLANTABLE DEVICES Cathanic™ Venous Catheters ArDentum™ Dental Implants Antimicrobial Sutures Antimicrobial Sutures Antimicrobial Mesh Applications OrthoFuzlon® Antimicrobial Bone Screw System