



DiFUSION Technologies Completes Successful Testing of Antimicrobial Spinal Implant

CleanFUZE™ antimicrobial device to significantly reduce surgical site infections (SSIs) and potentially save the healthcare system \$150 million dollars annually

Austin, Texas – January 26, 2009 – DiFUSION Technologies, Inc., a medical device company targeting the orthopaedic market, has successfully completed a series of laboratory tests of its silver ion-based antimicrobial technology designed to mitigate Surgical Site Infections (SSIs) in spinal surgery. The technology will be incorporated into DiFUSION's first spinal implant CleanFUZE™. Laboratory tests validate the controlled antimicrobial release of ionic silver and antimicrobial efficacy, achieving a 5 log reduction in microbial counts which is 99.999% effective. Currently, no antibiotic can achieve this efficacy.

In response to the rising incidence of SSIs within spinal surgery, which have been reported in large studies to range from 2.5% to 13%, DiFUSION has developed CleanFUZE™, an antimicrobial PEEK spinal interbody cage capable of stopping biofilm formation in the bone graft site and eliminating 650 types of bacteria including antibiotic-resistant bacteria such as MRSA for up to four weeks postoperatively. DiFUSION's solution will not only improve infection ratios, it will also save the patient from additional surgery, weeks of IV antibiotics and in some cases life long exposure to oral suppressive antibiotics, amputation and even death; benefits that will impact surgeons, patients, hospitals and insurance carriers.

"DiFUSION is targeting a problem that costs hospitals and insurance carriers over \$100,000 per SSI incidence, and CleanFUZE™ has the potential to not only obviate spinal surgical site infections, but also save hospitals millions of dollars a year in associated costs to treat these infections," said Dr. Peter Whang, a member of DiFUSION's scientific advisory board and an Assistant Professor in the Department of Orthopaedics and Rehabilitation at the Yale University School of Medicine in New Haven, Connecticut. "Moreover, as of October 2008, the Centers for Medicare and Medicaid (CMS) are no longer paying for hospital-acquired infections; therefore, healthcare facilities are going to have to absorb these staggering costs."

"DiFUSION's solution addresses the U.S. Department of Health and Human Services' (HHS) action plan released January 2009 to reduce and eliminate healthcare-associated

infections (HAIs), one of the key areas being surgical site infections,” said Dr. Matthew Geck, founder and board member of DiFUSION and leading orthopaedic surgeon in Austin, Texas. “Our technology can have a profound impact on lowering the devastating infection rates recently reported by the HHS’ Centers for Disease Control and Prevention (CDC). HAIS are among the top ten leading causes of death in the United States, accounting for an estimated 1.7 million infections and 99,000 associated deaths in 2002.”

The infection-fighting material used in DiFUSION’s CleanFUZE™ is a ‘super silicate’ molecule composed of antimicrobial silver ions that is compounded into the plastic spinal interbody cage. Once the CleanFUZE™ interbody cage is implanted into the spinal disc space during spinal surgery, silver ions exchange with naturally occurring sodium ions in the bloodstream and diffuse antimicrobial silver ions for a period of 4 weeks.

Unlike other devices on the market, DiFUSION’s CleanFUZE™ will be capable of releasing its dosage amount over time and the rate of diffusion can be controlled by parts-per-billion. Additionally, rather than antimicrobial coatings currently used in devices, CleanFUZE™ contains antimicrobial properties embedded in the device, significantly enhancing the effectiveness.

“Larger companies have spent years and millions of dollars trying to address the SSI problem with antimicrobial coatings which do not fight infection past the first 48 hours. Our technology provides antimicrobial protection for 4 weeks due to ‘controlled cationic release’,” said Dr. Hyun Bae, a member of DiFUSION’s scientific advisory board and a board-certified orthopaedic surgeon in Santa Monica, California, specializing in minimally invasive microsurgery and the treatment of cervical and lumbar spinal disease. “No other orthopaedic company has developed a technology with this kind of duration and efficacy; clearly DiFUSION is setting itself apart from the market with CleanFUZE™.”

In tandem with the reasonable cost of adoption, DiFUSION’s solution has the potential to quickly become mandated by hospital material managers due to the fact that orthopedic surgeons will not need to alter currently accepted surgical techniques and or utilize new implantation instruments, while hospital and insurance carriers will not be required to implement new procedure codes.

DiFUSION intends to conduct the appropriate filings to facilitate full FDA clearance by the end of 2009. Agreements are also in place with 15 distributors and discussions have been

initiated with an additional 20. This will position a U.S. sales force of 200 to 300 sales representatives to support the launch of CleanFUZE™. More information on CleanFUZE™ can be found at www.difusiontech.com.

About DiFUSION Technologies

DiFUSION Technologies, located in Austin, Texas, is a medical device company that develops silver-based antimicrobial solutions for the orthopaedic spinal market to reduce Surgical Site Infections (SSIs) in spinal surgery. DiFUSION's CleanFUZE™ PEEK spinal interbody cage will be capable of mitigating 650 types of bacteria, including MRSA, up to four weeks postoperatively, thereby drastically reducing hospital-acquired infections or SSIs. DiFUSION is funded by angel investors, and the company will be seeking a second round of funding for marketing and sales support in order to roll out the medical device on a nationwide basis. Current investors are expected to participate in the upcoming round. For more information about DiFUSION Technologies, visit www.difusiontech.com.

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