



NEWS RELEASE

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Sharklet Technologies Awarded NIH SBIR (Small Business Innovation Research) Grant for Development of Urinary Catheter with Sharklet™ Pattern

—Sharklet Technologies to develop catheter with biofilm-resistant Sharklet™ micro-pattern to reduce risk of catheter-associated urinary tract infections—

Alachua, Fla. – [Sharklet Technologies](http://SharkletTechnologies.com), Inc. today announced that it has been awarded a \$168,000 Small Business Innovation Research (SBIR) Phase I grant by the National Institutes of Health (NIH) / National Institute of Diabetes and Digestive and Kidney Diseases to develop a urinary catheter with the Sharklet™ micro-pattern that inhibits bacteria growth.

The grant will enable Sharklet Technologies to validate the effectiveness of a Sharklet-patterned catheter for inhibiting bacterial biofilm development of *E. coli*, a bacterial species commonly associated with catheter-associated urinary tract infections (CAUTIs). Further, Sharklet Technologies will prove feasibility of fabricating catheter-like prototypes that exhibit Sharklet-patterned surfaces. Upon successful conclusion of Phase I, a follow-on Phase II project will be designed to develop manufacturing methods for tube prototypes and demonstrate efficacy within an *in vivo* model. The company expects to complete both phases by mid-2011.

Dr. Shrvanthi Reddy will serve as the principal investigator for the Sharklet catheter project. “We are pleased to have the opportunity to further develop a Sharklet Urinary Catheter as we believe the device holds the potential to significantly improve the quality of healthcare,” said Dr. Reddy. “As catheter-associated urinary tract infections are the most common of [hospital-acquired infections](#), a major advance in catheter technology will enhance patient care and greatly improve hospital financials.”

CAUTIs account for about 40 percent of infections in hospitals and nursing homes. About 95 percent of urinary tract infections are associated with urinary catheters. These infections account for an estimated \$400 million annually in additional costs to patients and the healthcare system.

Current methods for preventing bacterial UTIs introduce antimicrobial agents to reduce concentrations of bacteria associated with biofilm formation. The continued use of these antimicrobial agents leads to bacterial resistance patterns that make catheter infections more difficult to treat. Unlike current kill

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methodologies, the Sharklet catheter will be capable of sustained inhibition of bacterial biofilm through its unique pattern alone. Per findings from laboratory tests and early research, the Sharklet topography creates an energetically unstable surface that bacteria find inhospitable, rendering additional antibiotic coatings or treatments unnecessary.

“Sharklet represents a breakthrough in bacterial control and the culmination of years of work in determining how surface topography can impact microorganism growth,” said Joe Bagan, chief executive officer of Sharklet Technologies. “Our primary objective is to offer healthcare providers a new line of defense in infection control to significantly improve patient care and reduce the incidence of hospital-acquired infections while lowering overall costs.”

About Sharklet Technologies

Sharklet Technologies is a biotechnology company that develops and brings to market surface technologies that are designed to inhibit or enhance microorganism growth to make the world a healthier, environmentally safer and better place. Inspired by the microbial-resistant properties of sharkskin, Sharklet™, the company’s core technology, is the first no-kill surface developed to control bacteria including MRSA, *Pseudomonas aeruginosa* and *E. coli*. Sharklet™ may be used in healthcare environments and on medical devices to help prevent the development of biofilms and hospital-acquired infections. The company is headquartered at the prestigious Sid Martin Biotechnology Incubator in Alachua, Fla., the top U.S. incubator that is internationally recognized as a pioneer in bio-business development. Learn more at www.sharklet.com.

More about the Sharklet™ pattern

[Sharklet](#) is a microscopic pattern that is comprised of millions of tiny raised bars arranged in a specific diamond pattern. The pattern, which is inspired by the microbial inhibition qualities of shark skin, may be imprinted onto a film that may be applied via contact adhesive to existing surfaces in healthcare environments or manufactured onto the surfaces of medical devices to inhibit bacterial growth. The pattern creates an energetically unstable surface that microorganisms find inhospitable for growth. There is no chemistry, toxicity or leaching of any chemicals. In addition, Sharklet does not kill bacteria to control it and, as a result, the technology does not contribute to the serious and growing problem of bacterial resistance.

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