International Antimicrobial Council

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SE&T colloquium presentation: The Science behind Odor Control in Textiles

Tuesday February 21, 2017 from 4:10-5:00pm in Pioneer Hall 240

Speaker: Dr. Robert Monticello, Senior Technical Advisor for the <u>International Antimicrobial Council</u> (IAC).

Apparel and Home Textile brands and retailers are always searching for ways to add value to their products and differentiate them from competitors' products. Performance features are an effective way to achieve this. Moisture management, wrinkle resistance, and UV protection are good examples but the most important emerging trend, especially with active consumers, is adding "freshness" features.

The use of antimicrobial agents as preservatives for various materials has been around for decades. Recently, a variety of antimicrobial agents have been added to textile substrates for the prevention of bacterial odor and the control of microbial deterioration on consumer products, as well as for the decrease of bacterial cross contamination in the medical industry. These technologies provide the added "freshness" that brands and retailers desire.

The antimicrobial agents that are used are very different in their mode of action, their human and environmental health profiles, and their ability to actually achieve the desired end-use performance. There are also a wide range of methods available to examine the interaction of microorganisms with textiles from measuring the ability of a textile to kill bacteria to the generation of biofilm formation.

During this presentation, Dr. Monticello will share consumer research results and the basic science behind antimicrobial odor control technologies. Most importantly, he will discuss the specific testing that is used in the antimicrobial industry that allows for the direct measurement of the activity on textiles and how this testing is being developed by students at SVSU at the IAC Laboratory Headquarters which in turn is being utilized around the world.

To stay fresh all day, athletic apparel needs to be enhanced with an odor control technology to handle unpleasant smells. The use of antimicrobial agents to control the microbes that cause these odors is a highly effective method for keeping textiles and apparel fresh smelling. "Athletes embrace technology whether it is in their equipment or in their apparel," says Monticello. "Odors coming from your running cloths can be distracting during your workout and odors coming from your kitchen towels can be embarrassing at home. Measuring the activity of these agents is an exact science and the development of this science is happening right here at SVSU".

More about the IAC

Founded in 2011 and headquartered at Saginaw Valley State University in Saginaw, MI, the International Antimicrobial Council is dedicated to promoting the safe, effective use of antimicrobials and odor control technologies in industries where microbial contamination is of concern. The IAC educates antimicrobial producers, treated product manufacturers, brands, and consumers. The IAC conducts research on the market demand for the odor control feature while keeping abreast of regulatory issues that affect the industry. The IAC laboratory has refined and continues to develop antimicrobial test procedures for standardized test methods that provide more uniform test results between laboratories. www.amcouncil.org