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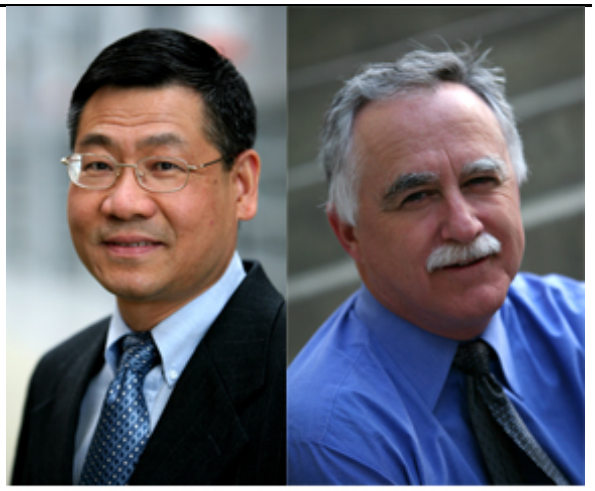
New way to identify "superbug" infections



Dr. Kunyan Zhang; Dr. John Conly

An antibiotic- resistant "superbug" called methicillin-resistant staphylococcus aureus (MRSA), most commonly found in hospital environments, has made its way into the broader community over the years. MRSA infections can cause a wide variety of diseases, ranging from mild skin infections to life-threatening illnesses. Although current testing methods can tell whether an individual has the MRSA infection, they do not identify the strain of the infection.

Researchers Dr. Kunyan Zhang and Dr. John Conly, both from the University of Calgary's Faculty of Medicine, have developed a novel and simple method to simultaneously identify if a patient has MRSA, as well as the strain of the infection.

This would allow clinicians to more accurately diagnose and effectively treat the infection. Identifying the strain could also identify where the infection may have originated, helping improve response times and containment plans for future outbreaks.

In addition, the technique has shown to be easy, quick and cost-effective, which can increase productivity for laboratories. The technique has been fully validated on clinical samples and is ready for use in clinical environments. Zhang and Conly are working with University Technologies International (UTI)—the University of Calgary's technology transfer, commercialization and incubation centre—to identify potential partners who can help bring this innovative new laboratory technique to the market.

In addition, UTI, Zhang and Conly are developing an intellectual property protection strategy for this new technique. Several patent applications have been filed, including two American, one Canadian, and a Patent Cooperation Treaty application, which provides the opportunity to apply for a worldwide patent.