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British Scientist Shares Expertise on Swine Flu Control in Beijing

While British schoolchildren infected with swine flu were being quarantined in a local hospital, UK microbiologist, Professor Bill Keevil, shared his expertise in the control of influenza virus A (H1N1) with leading scientists from around the globe at the World Summit of Antivirals in Beijing.

Professor Keevil's research shows that copper actively inhibits influenza A (H1N1) indicating a role for hard surfaces such as door handles to be made from copper and brass (copper combined with zinc) to help prevent the spread of infection.

Professor Keevil, Director of the Environmental Healthcare Unit at the University of Southampton, has shown that copper is effective at inactivating influenza A (including H1N1). The research, was presented at the BIT Life Sciences 2nd Annual World Summit on Antivirals, in Beijing on July 18.

Professor Keevil's study involved a series of experiments testing incubation of Influenza A on copper and stainless steel surfaces. Results showed that after incubation for 24 hours on stainless steel, 500,000 virus particles were still infectious, while after only 1 hour of incubation on copper, 75% of the virus was eradicated, and after 6 hours, just 500 particles remained active.

The findings by Professor Keevil's research add to earlier studies that have already confirmed the efficacy of copper in killing pathogenic bacteria that include E. coli, Salmonella, and the superbugs, C. difficile and MRSA, – some of the most virulent strains of antibiotic-resistant bacteria and a common cause of hospital and community-acquired infections.

The research, unveiled at the World Summit on Antivirals, will contribute to further understanding of copper's antimicrobial qualities, which actively inhibit the growth of bacteria, fungi and viruses.

Professor Keevil said "With the ongoing threat of contamination by Influenza A viruses, such as H1N1, there is a real and pressing need to utilise all appropriate and effective measures with proven antimicrobial qualities. Studies have now repeatedly shown that the use of copper as a surface material in key public places such as hospitals and food preparation areas may substantially restrict and reduce the spread of harmful infection".

The use of copper as a preventative health measure is becoming increasingly well recognised. The U.S. Environmental Protection Agency has approved the registration of antimicrobial copper alloys, in line with proven public health benefits. In the UK, a clinical trial at Selly Oak Hospital, Birmingham, demonstrated that door handles and taps made from copper had 90-100% fewer germs on them than those made from other materials.

Professor Keevil added: “These public health benefits, supported by extensive antimicrobial efficacy testing, are underpinned by the fact that copper, brass and bronze are capable of killing harmful and potentially deadly micro-organisms”.

Copper is the first solid surface material to receive this type of EPA registration, with antimicrobial copper alloy surfaces being shown to kill more than 99.9% of specific bacteria (including the MRSA superbug) within two hours, and to continue to kill more than 99% of (these) bacteria even after repeated contamination.

Copper metals, unlike other materials treatments, retain their antibacterial efficacy, offering solid, long-term protection. As a result, copper can play a pivotal role as a control barrier to the spread of harmful pathogens, and supplement standard infection control practices, which will continue to require stringent hygiene controls and development of antiviral vaccines.

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| <p>Professor Bill Keevil</p> | <p>Brass (copper and zinc alloy) door handle</p> | <p>Copper tap</p> |

Note for editors:

Further information available:

1. Professor’s Briefing
2. Biography of Professor Keevil
3. Questions and Answers on Antimicrobial Copper
4. Key scientific references and details of clinical trials: www.copperinfo.co.uk/antimicrobial
5. High resolution images available on request.

For further information or hi res images, please contact:

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