

**Professor Bill Keevil**  
**School of Biological Sciences**  
**University of Southampton**



Professor Keevil is currently the Head of the Microbiology Group and Director of the Environmental Healthcare Unit at University of Southampton.

Prior to joining University of Southampton, Professor Keevil was the Head of the Environmental Technology Department at Centre for Microbiology and Research, Salisbury, UK. He is also an active fellow participant at prominent academic associations worldwide such as Fellow of American Academy of Microbiology. In addition, Professor Keevil served as the Scientific Advisor to the House of Commons Select Committee on Science & Technology.

Professor Keevil's research interests include Physiology and adaptive mechanisms for survival of pathogens. Some of his research findings have great influence on current daily applications. His study result of "the highly toxic E. coli O157:H7 strain of bacteria survive for much shorter periods of time on copper and brass surfaces than on stainless steel" has been broadly applied to hospitals and food processing facilities where health and safety are of major concern. More than that, Professor Keevil's recent publications on "Potential use of copper surfaces to reduce survival of epidemic methicillin-resistant Staphylococcus aureus in the healthcare environment" and "Survival of Clostridium difficile on copper and steel" helps provide prospects for hospital hygiene.

Professor Keevil is a graduate of University of Birmingham, United Kingdom, where he completed his PhD. in Biochemistry.

**Qualifications**

- BSc Biochemistry, University of Birmingham
- PhD Biochemistry, University of Birmingham

**Professional Experiences**

- Postdoctoral Fellow, University of Southampton
- Visiting Research Fellow, University of Manitoba
- Fellow of the Institute of Biology
- Fellow of the American Academy of Microbiology
- Fellow of the World Innovation Foundation
- Scientific Advisor to the House of Commons Select Committee on Science & Technology
- Previously Head of the Environmental Technology Department, Centre for Microbiology and Research, Salisbury
- Visiting Professor of Microbiology, University of Exeter

### Research Interests

- Physiology and adaptive mechanisms for survival of pathogens, in vivo and in vitro e.g. Legionella, Helicobacter, E. coli O157, MRSA, C. difficile.
- Biofilms in the environment, the built environment and clinical practice
- Surface contamination, including prions; fouling and corrosion.
- Survival of sublethally damaged pathogens in human and animal wastes recycled to agricultural land, e.g. E coli O157 Salmonella, Campylobacter, Listeria, Cryptosporidium

### Selected Publications

- Noyce, J., Michels, H. and Keevil, C.W. (2006). Potential use of copper surfaces to reduce survival of epidemic methicillin-resistant *Staphylococcus aureus* in the healthcare environment. *Journal of Hospital Infection* 63, 289-297.
- Noyce, J., Michels, H. and Keevil, C.W. (2006). Use of copper cast alloys to control *Escherichia coli* O157 cross contamination during food processing. *Applied and Environmental Microbiology* 72, 4239-44.
- Juhna, T., D. Birzniece, S. Larsson, D. Zulenkovs, A. Shapiro, NF. Azevedo, F. Menard-Szczebara, S. Castagnet, C. Feliers and C. W. Keevil (2007). Detection of *Escherichia coli* in biofilms from pipe samples and coupons in drinking water distribution networks. *Applied and Environmental Microbiology* 73, 7456-64. (Selected as one of the six best articles for all ASM journals for the *Journal Highlights* section of *Microbe* (formerly *ASM News*), January 2008 issue)
- Noyce, J., Michels, H. and Keevil, C.W. (2007). Inactivation of influenza A virus on copper versus stainless steel surfaces. *Applied and Environmental Microbiology* 73, 2748-2750.
- Weaver, L. Michels, H.T. and Keevil, C.W. (2008). Survival of *Clostridium difficile* on copper and steel: futuristic options for hospital hygiene. *Journal of Hospital Infection* 68, 145-151.