



Lichfield Science & Engineering Society

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Theatre & Studio

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8:00 pm on Tuesday 9th June 2015

in the Main Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

RISE OF THE SUPERBUGS - The end of antibiotics?

**Professor Peter Lambert BSc, PhD, DSc.
School of Life and Health Sciences
Aston University**

Antibiotics were among the greatest medical discoveries of the 20th century and have saved millions of lives worldwide. Now “superbugs”, bacteria resistant to a number of different antibiotic classes, threaten to end the antibiotic era. In 1969 it was thought that the battle against infection had been won. The Pharmaceutical Industry scaled down its antibiotic research and development programmes and the pipeline of new antibiotics dwindled to a trickle. Methicillin resistant *Staphylococcus aureus* (MRSA), first described in 1961, emerged as a serious hospital pathogen in the 1970s. It spread rapidly in hospitals worldwide in the 1980s and 1990s and strains emerged that could attack healthy individuals in the community. Few antibiotics remained effective against MRSA and control of its spread was only achieved by rigorous attention to cleanliness, hygiene and surveillance in hospitals. Worse was to follow. Other superbugs were also emerging, the most threatening of which are the carbapenem resistant enterobacteriaceae (CRE). These superbugs are resistant to the carbapenems, the most active antibiotics we have, and to most of the other groups of antibiotics. Very few treatment options remain for CRE. In his Nobel Prize acceptance speech of 1945, Alexander Fleming had warned of the perils of antibiotic resistance and the need to use penicillin carefully. So why do we find ourselves in this position? More importantly, what can be done?

Following his first degree in Chemistry and PhD in Microbiology, Professor Peter Lambert worked on the discovery of new antibiotics in the Pharmaceutical Industry in the 1970s. He joined the Department of Pharmacy at Aston University as a Lecturer in Microbiology in 1980 where he continued his research on antibiotic resistance, healthcare-related infections and mechanisms of bacterial virulence. He has published books, reviews and research papers on antibiotics and infection with his hospital-based medical microbiology colleagues. He is currently Professor of Microbial Chemistry in Life and Health Sciences at Aston University, working on rapid tests for diagnosis of infection and new ways to overcome resistance and treat bacterial infections.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £5.00. Tickets are not issued in advance, please pay at the door.

Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.

This lecture is expected to finish by 10.00 pm.