Distinguished Lecture

The emergence of mecC methicillin resistant Staphylococcus aureus

by

Dr. Mark Holmes Ph.D.
Snr Lecturer in Preventive Veterinary Medicine
University of Cambridge

on

Friday, January 31, 2014
from 11.30 AM to 12.30 PM

Venue

Auditorium, NIAB,
D. No. 1-121/1, 4th & 5th Floors,
Axis Clinicals Building,
Opp. Talkie Town, Miyapur,
Hyderabad

All are cordially invited.

Director

Biography:

• Ph.D. in Veterinary Immunology. University of Cambridge. 1989
• 1999 to date. Senior Lecturer in Preventive Veterinary Medicine, University of Cambridge.
• 1990 – 1999 Lecturer in Preventive Veterinary Medicine, University of Cambridge.
• Responsible for teaching animal and cattle medicine, epidemiology, veterinary immunology, statistics, and clinical research methodology.
• Director of the Cambridge Infectious Disease Consortium Outreach Program.

Abstract:
The discovery of methicillin-resistant Staphylococcus aureus (MRSA) encoding a divergent mecA gene in 2011 was highly significant. This homologue, designated mecC, poses diagnostic problems with the potential to be mis-diagnosed as methicillin-sensitive S. aureus, with important potential consequences for individual patients and for the surveillance of MRSA. mecC MRSA have now been reported from 13 European countries and have been isolated from 14 different host species, with evidence of a recent increase in Denmark. The mecC gene has been found in a number of coagulase negative staphylococci and functional studies of the gene product have provided a useful comparison with mecA. The population structure of mecC MRSA shows that the gene is present in two main lineages of S. aureus (CC130 and CC425) and that there appears to be transmission between human and livestock hosts. Dr Holmes will review the work that has been conducted by his group with an emphasis on the value of next-generation sequencing in the investigation of novel bacterial lineages and their epidemiology.