

Superbugs top focus of leading microbiology meet

September 11 2010, by Jean-Louis Santini

Serious public health risks due to a lack of new antibiotics at a time of rising antibiotic-resistant "superbugs" will be the main focus of a top microbiology conference in Boston that starts Sunday.

"We are increasingly concerned about the decline in antibiotic discovery," warned Lindsay Grayson of Austin Hospital in Melbourne, Australia, who is program chair at the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) at its 50th annual conference, running from September 12-14.

For Grayson, the key reason of the marked decline in discoveries "is a changing of focus of drugs companies away from antibiotics," he told AFP, saying the lack of new drugs means people are seeing more "infections that are untreatable with antibiotics because we don't have new drugs to treat them."

<u>Drug resistance</u> in bacteria, blamed on excessive and improper use of antibiotics, is not new, and health experts warn of an increasingly dangerous environment where the problem can flourish.

The World Health Organization (WHO) last month issued a fresh warning over the metallo-lactamase-1 (NDM-1) gene that enables some micro-organisms to be highly resistant to almost all antibiotics.

The Lancet medical journal said bacteria containing the NDM-1 gene had been found in 37 Britons who had received medical treatment in



South Asia in recent months.

To fight the rising <u>microbial resistance</u>, Grayson -- who described the NDM-1 bug as a "very serious" threat -- called for a focus on wiser use of antibiotics.

"We need to improve the control of antibiotics, we need to improve the control of counterfeit drugs, and the government regulations for the use of antibiotic needs to be improved," he said.

Grayson also said the sale of antibiotics needs to be better controlled by requiring a prescription and not sold over the counter.

Grayson said research in the field would be highlighted at the ICAAC meeting, to be attended by 12,000 members and three Nobel laureates.

"There is still time and plenty of opportunities to fix things," he said, noting that another key measure is the more controlled use of antibiotics in animals for human consumption, notably poultry.

ICAAC marks its half century with the publication of a book containing key findings in the fight against microbial infections.

Last month, an international study found that many hospital infections already difficult to treat have become even more resistant to drugs due to the NDM-1 gene that can jump across different species of bacteria.

Researchers led by Cardiff University's Timothy Walsh -- who first uncovered the gene -- and Walsh and Madras University's Karthikeyan Kumarasamy said the new class of superbugs resistant to almost all antibiotics were being carried from South Asia to Britain by plastic surgery patients.



"Unprecedented air travel and migration allow bacterial plasmids and clones to be transported rapidly between countries and continents," mostly undetected, they warned in the study published in The Lancet.

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