

Scientists warn slowdown in research poses worldwide threat

September 13 2010, by Jean-Louis Santini

A slowdown in research aimed at development of new and more effective antibiotics poses the threat of a return to a situation that existed in the world before the discovery of penicillin, scientists warned.

"We have a big resistance problem that has become a global health crisis," said Doctor Ursula Theuretzbacher of the Austrian Center for Anti-Infective Agents.

She spoke at the 50th annual meeting of the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), which opened here Sunday.

Theuretzbacher said thousands of people that were being affected and die from multidrug resistance, which had become a big problem in developing as well as in developed countries.

"There are so many cases already that are non-treatable," cautioned the Austrian expert. "We don't have any antibiotics left to treat them, including the last resort antibiotics ... You see now increased resistance against these also."

She said a look at antibiotics that are being developed brings experts to the conclusion "that the medical need is not really met by the pharmaceutical industry."

Doctor Gary Noel of the pharmaceutical company Johnson and Johnson

said the volume of scientific research concentration on new antibiotics has probably dropped by half over the past 10 years.

He said there had been a divestment of resources in this area of medical research because the return on investment had not been as great as it was in other therapies.

Noel said that according to his research, there are probably about 50 molecules that are being planned for systematic use to treat infectious diseases.

Of those 50 just under half are in the early stages of clinical development, he said, and a little more than 10 percent have actually progressed into the latest stage of development.

"And when a drug gets into the final stage, it is still two to three, four years away from getting to a patient bedside," Noel warned.

Theuretzbacher said societies needed a new approach to solving this problem that would not be based exclusively on investment and profits.

She said several existing proposals aimed at solving the problem, such as creating public-private partnerships and directing more public money into research.

"The public probably needs to come in to fill this gap of funding in the very early research and early development," Theuretzbacher concluded.

She suggested stricter regulation of what she sees as the current excessive use of antibiotics by humans and in the cattle industry, which had prompted bacteria to develop resistance to them.

Theuretzbacher urged health officials to do everything possible to "avoid

coming back to the pre-penicillin era."

ICAAC, the principal international meeting on [infectious diseases](#), has brought together some 12,000 specialists to Boston for presentations and discussions between September 12-15.

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.

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