Warwick researchers secure £3.19m boost to tackle superbugs

Tuesday 19 May, 2015

Researchers at the University of Warwick have been awarded £3.19m in funding to support a flagship project into antimicrobial resistance (AMR).

The funding will enable multi-partner collaborations in order to tackle the growing threat of superbugs as part of a co-ordinated multi-disciplinary effort to fight their prevalence.

Awarded by a cross research council 'war cabinet' on AMR comprising the Medical Research Council (MRC) and the Biological Sciences Research Council (BBSRC), the funding marks one of the largest UK public grant investments in AMR research.

The University of Warwick researchers, Prof Chris Dowson, Dr David Roper, Dr Adrian Lloyd of the School of Life Sciences and and Prof Matthew Turner of the Department of Physics, will investigate a vital link in the chain of antimicrobial resistance - the bacterial cell wall. The main component of the wall is called peptidoglycan, which is the key target of penicillin and other similar antibiotics.

Despite its important role, little is known about how peptidoglycan is made and how antibiotics interfere with it at the biochemical, structural and cellular levels.

Without this knowledge, the researchers argue, we're unlikely to understand how to develop new, effective antibiotics.

The project will pull together a unique group of world leaders, from institutions including the Universities of Oxford, Sheffield, Southampton and Newcastle, in bacterial chemistry, genetics, physics and physiology in the area of peptidoglycan metabolism, structure and architecture.

Further to academic collaborations, the pharmaceutical industry and charities will also work hand in hand with the researchers on a global scale with the aim of unlocking new types of antibiotics.

Prof Chris Dowson at the University of Warwick said:

"Antibiotic resistance needs to be viewed as a long-term problem with no quick fix. It will be with us for many generations to come. To 'beat the bug' we need to accelerate discovery activities in partnership with industry. Our multidisciplinary team will develop new insight to key targets to help accelerate this discovery and will provide a platform upon which to train the next generation of researchers."

In a statement to announce the funding the MRC said:

"Antimicrobial resistance is a huge and complex problem for healthcare and agriculture. Antibiotics have been used to treat bacterial infections in humans and animals for 70 years, but these medicines are becoming less and less effective. No new classes of antibiotics have been discovered for 25 years and some strains of bacteria are now unharmed by the drugs designed to kill them. It's estimated that 10million people around the world could die from drug resistant infections by 2050, if this problem is not addressed.

"The UK research councils have ring-fenced £33.5 million from the current spending round in an initiative to improve our understanding of resistance, and ultimately, our ability to develop new drugs and therapies. These grants have been awarded, under theme one of the cross council initiative 'Understanding resistant bacteria'. The grants will run for 4-5 years."

Related Sectors:

Health ::

Scan Me:

Company Contact:

_

Pressat Wire

E. support[@]pressat.co.uk

View Online

Newsroom: Visit our Newsroom for all the latest stories:
https://www.wire.pressat.co.uk