Tackling the AMR crisis – a global approach

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Earlier in the year, Lord Jim O’Neill wrote a Review on antimicrobial resistance in which he set out a comprehensive action plan for the world to tackle antimicrobial resistance (AMR). According to the Review, AMR could kill 10 million people a year by 2050, the equivalent of 1 person every 3 seconds; more than cancer kills today.

The success of the action plan’s implementation depends on global cooperation and coordination, which is why on 21st September 2016, all 193 countries of the UN signed a declaration agreeing to take action against antimicrobial resistant infections.

There is no one solution to AMR as several different concerns need to be addressed, including, improving hygiene, reducing unnecessary use of antimicrobials in agriculture, advancing global surveillance and developing new rapid diagnostics.

Raising public awareness on AMR is key to tackling the issue. UK members of the European Federation of Biotechnology in association with the Learned Society Partnership on AMR (LeSPAR) organized a discussion evening on 10 October, during Biology Week 2016, to debate how regulation and innovation can help tackle the antimicrobial resistance crisis. A panel of expert speakers from across the life sciences included: Professor Mark Fielder, Vice President of the Society for Applied Microbiology, Tamar Ghosh, Longitude Prize Lead at Nesta, John Broughall, volunteer with Antibiotic Research UK and Professor Jeff Cole, Vice President of the European Federation of Biotechnology.

The audience shared their experiences of different prescription practices across Europe – Norway was said to be more stringent than many others and antibiotics there weren’t readily available without conclusive diagnostic tests. The use of antibiotics in agriculture was also widely discussed. Professor Mark Fielder said that in the USA up to 70% of antibiotic consumption was non-human because the drugs increase animal growth and meat yields by 10%. He added that antimicrobial resistance is a complex issue where the human and animal health is closely interconnected with their environment (for example, it is said that the antibiotics in sewage contaminate the surrounding and further contribute to AMR).

While the discussions on AMR usually revolve around resistance, there is another angle to keep in mind – Tamar Ghosh reminded the audience that although we are in the midst of an AMR crisis, more people are dying worldwide from a lack of access to antibiotics than from AMR-related issues. ■

Biochemical Society is a member of the European Federation of Biotechnology and the Learned Society Partnership on ARM (LeSPAR).

Summary

Nuffield Council on Bioethics publishes a review on genome editing
Genome editing: an ethical review sets out our preliminary findings on the impact of genome editing across different areas of biological research and the range of questions it raises. The review has identified top two ethical challenges for genome editing application – preventing inherited genetic diseases and increasing food production rates in farmed animals. Further work by Nuffield Council on Bioethics will be carried out on each of these two areas, focusing on recommendations for policy and practice, and will be published in 2017.

Gathering evidence on the impact of Brexit on higher education
The House of Commons Education Select Committee launches an inquiry into the impact of UK’s exit from the European Union (EU) on higher education. The consultation includes but isn’t limited to: the impact of Brexit on EU students studying in England, the future of the Erasmus programme, risks and opportunities for UK students and the steps the Government should take to mitigate any possible risks and take advantage of any opportunities following Brexit. The Society will be feeding into the Royal Society of Biology’s response.

To find out more about our science policy work, please email Gabriele Butkute (Science Policy Officer) at policy@biochemistry.org