



# Antimicrobial Resistance

A Biochemical Society position statement | **May 2014**

Antimicrobial resistance has been described as a 'catastrophic threat' to the world, akin to terrorism or climate change.<sup>i</sup>

This threat is building; although the development of resistance to antimicrobials is a natural evolutionary process, it is being accelerated by misuse and inappropriate use of antibiotics. Combine this with the fact that the flow of new antimicrobial agents is diminishing and the result is a crisis in the making.

There is public awareness of the need for determined action to avert potential treatment failure, and there is broad agreement among key experts, brought together through the Department of Health's UK Antimicrobial Resistance Strategy.<sup>ii</sup> In this document, the UK Government has acknowledged the problem, and now efforts must be made to develop solutions.

Antimicrobial resistance (AMR) must be mitigated via a multi-faceted approach including improving infection prevention and control measures, optimising prescribing practices and prioritising research and development. This will require political will and international coordination across both human and animal medicine and agriculture, as well as new funding. Antimicrobial resistance is a global problem and it is imperative that it is treated as such. The World Health Organisation (WHO) has recently acknowledged this in their report on global surveillance of AMR.<sup>iii</sup>

The Biochemical Society has a varied membership including biochemists active in drug discovery and novel therapeutics development in both academic and industrial settings.

The Society believes that there should be sustained research funding to drive the development of new antimicrobials and rapid diagnostics as well as alternative approaches to combating infection, particularly vaccines. Partnerships between industry and academia, and public-private partnerships, will be vital to promote research into new antimicrobials and alternatives. Furthermore, regulatory processes for drug approval and incentives for private research must be addressed and reviewed to facilitate the development of new therapies.

One of the vital strands of antimicrobial therapy is antibiotics. To this end, the Biochemical Society supports the work of Antibiotic Action.<sup>iv</sup> This campaign seeks to inform and educate across society regarding the need for discovery, research and development of new antibiotics.

The Biochemical Society is working with the British Society for Antimicrobial

Chemotherapy, the British Pharmacological Society, the Royal Society of Chemistry, the Society for Applied Microbiology, the Society for General Microbiology and the Society of Biology as part of an Anti-Infective Technologies and Strategies Policy Working Group to ensure that learned societies are appropriately positioned to contribute to Government policy and that policymaking surrounding the threat of antimicrobial resistance prioritises scientific evidence.

The Biochemical Society believes that it is vital to the health of all nations that antimicrobials remain a mainstay of modern medicine and are available to all who need them.

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<sup>i</sup> The Drugs Don't Work: A Global Threat, Professor Dame Sally C Davies, 2013, Penguin Specials.

<sup>ii</sup> UK Five Year Antimicrobial Resistance Strategy 2013 to 2018 <https://www.gov.uk/government/publications/uk-5-year-antimicrobial-resistance-strategy-2013-to-2018>

<sup>iii</sup> WHO, Antimicrobial Resistance: Global Report on Surveillance, May 2014 [http://apps.who.int/iris/bitstream/10665/112642/1/9789241564748\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/112642/1/9789241564748_eng.pdf?ua=1)

<sup>iv</sup> <http://antibiotic-action.com/>

The Biochemical Society exists for the **advancement of the molecular and cellular biosciences**, both as an academic discipline and to promote its impact on areas of science including biotechnology, agriculture, and medicine.

We achieve our mission through our publications and journals, scientific meetings, educational activities, policy work, awards, and grants to scientists and students.

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