



## **BPS response to Commons Science & Technology Select Committee inquiry on antimicrobial resistance**

### ***Is there sufficient research and investment into new antibiotics or other treatments and methods to ensure continued protection against infection? If not, how could this be rectified?***

1. The British Pharmacological Society (BPS) consider that there is insufficient research into new antibiotics, and recently signed Antibiotic Action's petition to call on "politicians and policy makers across the world (to) take global action to discover, research and develop new antibacterial drugs and treatments". We fully endorse this aim.
2. Clearly pharmacology is a crucial discipline to the discovery of drugs and the need to ensure education and training of future pharmacologists is paramount to ensure drug development in the UK in future. In antibiotics research the crucial role of pharmacologists is centred on drug safety. In the immediate term, there is a need to incentivise the development of new antibiotics. The pharmaceutical industry has moved away from developing antibiotics and therefore an area of high unmet need is not being addressed. Without new drugs the routine operations of the future will no longer be routine and, instead, will be fraught with risk of untreatable infection.
3. As members of the DDPG (Drug Discovery Pathways Group) BPS, Society of Biology, Academy of Medical Sciences, Royal Society of Chemistry and the Biochemical Society are working together to consider issues in drug discovery and to ensure Learned Societies support the drug discovery pipeline. BPS is leading on the issue of skills: the DDPG identified that the UK must maintain its skills base and identify 'skills gaps' quickly, as they arise. As part of the development of new antibiotics we emphasise the need for continued investment in drug discovery skills which will enable such research.

### ***What measures (including behavioural change) have been most effective in controlling the spread of resistant pathogens, and could such measures be used to control other pathogens?***

4. It is vitally important that medical education around antibiotic resistance improves. As Chief Medical Officer Dame Sally Davies highlighted, there is 'woeful' education offered to medical students and doctors on this issue. An outcome from *Tomorrow's Doctors* (2009 – outcome 1f) was that medical graduates should be able to "demonstrate knowledge of drug actions: therapeutics and pharmacokinetics; drug side effects and interactions, including for multiple treatments, long-term conditions and non-prescribed medication; and also including effects on the population, such as the spread of antibiotic resistance".

5. BPS is working with the Medical Schools Council to provide the Prescribing Safety Assessment (PSA) to enable medical students to demonstrate their competencies in safe and effective prescribing (a key theme of clinical pharmacology). This national assessment aims to allow students to show the core prescribing competencies outlined in *Tomorrow's Doctors* have been achieved prior to moving to Foundation doctor level (where they will be prescribing as frontline NHS doctors). This assessment should drive improved education in medical schools on vitally important issues such as understanding antibiotic resistance and ensuring safe and effective prescribing of antibiotics. It is not only in the development of new antibiotics that progress must be used but in the short-term we must ensure the NHS use of antibiotics is effective. The PSA is well placed to raise the profile of good prescribing practices, including the prescribing of antibiotics.
6. Moreover, BPS believes that our e-learning site *Prescribe* (currently free to access to all UK medical students) could play a key role in provision of e-learning to UK medical students on this issue. We encourage the Committee to support such educational initiatives to improve use of antibiotics.

***How has antimicrobial resistance developed in the past decade?***

No comments

***What are the gaps in our knowledge about antimicrobial resistance?***

No comments

***What global coordination and action is required to fight antimicrobial resistance and is the UK contributing enough towards cross-border initiatives?***

No comments

***What are the strengths and weaknesses of the Government's 2013-2018 strategy for tackling antimicrobial resistance? What changes might be made to further strengthen the Government's action plan?***

No comments

**About BPS**

BPS is the primary UK learned society concerned with research into drugs and the way they work. Our members work in academia, industry, and the health services, and many are medically qualified. The Society covers the whole spectrum of pharmacology, including laboratory, clinical, toxicological and regulatory aspects.

Clinical pharmacology is the medical speciality dedicated to promoting safe and effective use of medicines for patient benefit. Clinical pharmacologists work as consultants in the NHS and many hold prominent positions in UK Universities.