

STOA Working Breakfast

Solving Antibiotic Resistance

European Parliament, 28th April, 2016

Final report

The Science and Technology Options Assessment (STOA) working breakfast, co-organised by the European Association for Chemical and Molecular Sciences (EuCheMS) and the European Federation of Medicinal Chemists (EFMC) on *Solving Antibiotic Resistance* attracted a large audience including six MEPs. Currently antibiotic resistance is an issue in Europe that could become much worse; it is also an even more serious problem in developing countries. The meeting was chaired by Paul Rübzig, MEP & STOA Chair.

Several recommendations emerged from the meeting. These include:

- The better use of current antimicrobials in Europe and worldwide is essential. This should include: i) an enforcement of the ban on using antimicrobials in agriculture for anything other than treating disease; ii) a major advertising campaign to ensure prescribed doses of antimicrobials are taken to completion; iii) better diagnostics to help doctors identify the correct antimicrobial to use.
- In addition to the better use of current antimicrobials, novel antimicrobials are urgently needed to treat multi-resistant microbes.
- Pharmaceutical companies will not, on their own, set up programmes to tackle antimicrobial resistance, because there is presently a predicted negative return on investment for new antimicrobials (when the costs of research, development and clinical trials are taken into account, a company is likely to lose about \$50 M through the lifetime of the project and drug sales).
- There is thus an urgent need for a consortium to be created, involving pharmaceutical companies, academia, research centres, the European Commission, and European Union Member States (MSs) to provide leadership and funding to tackle this problem.
- This consortium should:
 - Set up 1-3 major centres (dedicated buildings, staff and equipment) focused on medicinal chemistry research in fields including

antibacterial/antimicrobial/anti-infective development. The centres should tackle several disease areas in order to ensure continuity of funding and critical mass of activity.

- In the area of new antimicrobials the consortium should: i) principally focus on classes of clinically validated antimicrobials and/or on clinically validated targets; ii) be able to provide leadership in terms of *in vitro* and *in vivo* pharmacology, pharmacodynamics, distribution, metabolism and formulation; iii) be linked to expert laboratories for specialist fundamental research; iv) be linked to excellent hospitals with research & teaching facilities; v) be able to have access to large populations, to implement large scale clinical trials.

Presentations given at the workshop are available at: <http://www.euchems.eu/policy-and-communication/policy-workshops/solving-antibiotic-resistance/>.