

2nd World Congress and Exhibition on

Antibiotics and Antibiotic Resistance

October 13-15, 2016 Manchester, UK

Surviving antimicrobial resistance

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Antimicrobial resistance threatens the viability of many recent medical advances such as organ transplants, hip replacements, cancer therapy to name but few. Development of new antibiotics cannot keep up with resistance, partly because the “easy” antibiotics have already been developed, partly because the funding model does not incentivize companies to develop new antibiotics and partly because of the huge cost of validating new antibiotics nowadays. So what can we do? It is easy to say “use fewer antibiotics” but effective antibiotic stewardship requires control to be consistent around the world. Also, human behavior is hard to change; patients are accustomed to being prescribed antibiotics, even for self-limiting conditions and the number of patients with long-term conditions (e.g., diabetes, asthma) that merit antibiotic prescription is raising. Agriculture and aquaculture need to adapt, yet antibiotics have helped these industries provide low-cost food for the world's fast-growing population. Should we all eat less meat and fish? At work, employees can be under pressure to attend or “work through it”, rather than rest when unwell. 'Presenteeism' can not only worsen an illness or infection but also help it spread to colleagues and customers. In hospitals, approximately 25% of Intensive Care (ICU) patients acquire an infection (HCAI). Among other patients, the HCAI rate is around 6%. HCAs typically require not only antibiotics but a prolonged stay in ICU. Globally, huge numbers of healthcare patients acquire avoidable infections that need antibiotics. Achieving even a modest reduction in HCAI rates will help to preserve our dwindling antibiotic stock.

Biography

Andrew Cross specializes in exploiting copper's intrinsic antimicrobial properties to reduce infection risk from touch surfaces. He offers product advice and consultancy to healthcare providers, architects/designers, construction professionals and helps manufacturers to develop new products. He has also helped the Copper Development Association develop educational materials on the scientific, practical and economic aspects of deploying copper for infection control. His long-term experience with the use of copper alloys for specialist engineering and architecture provides a sound practical foundation, combining this with the latest published research enables successful translation of a concept into healthier buildings with tangible benefits for people and organizations.

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