DRIVE AB RE-INVESTMENT IN R&D AND RESPONSIBLE ANTIBIOTIC USE

Novel business models needed to revive reinvestment in antibiotics

Antibiotic resistance is widespread. Its global human and economic burden is tremendous and constantly increasing. The World Health Organization has identified antimicrobial resistance as a major global threat to human health. Despite the recognized and growing need for new antibiotics, today most large pharmaceutical companies have dropped active antibacterial drug discovery programmes. One reason is that it is scientifically challenging to discover new antibiotics that are active against the antibiotic-resistant bacterial species of current clinical concern. However, a major challenge is diminishing economic incentives compared to other medical fields such as HCV or cancer. Increased global calls to reduce use of antibiotics (to counter the selection and spread of resistant bacteria), the cost of meeting regulatory requirements and low prices of antibiotics compared to other therapy fields are strong deterrents to new antibacterial drug R&D. Despite considerable challenges a large number of small companies and specialised academic centres are pursuing a wide variety of antibacterial approaches and drug discovery programs. New economic models that create incentives for the discovery of new antibiotics and delink the return on investment from volume of sales are long overdue.

DRIVE-AB (Driving Reinvestment in R&D and Responsible Antibiotic Use) is a public-private consortium funded by the EU Innovative Medicines Initiative (IMI) with in-kind support from EFPIA partners (European Federation of Pharmaceutical Industries and Associations) equivalent to one third of the total Euro 9.4 million funding awarded. This collaborative multinational project seeks to recommend options to governments and policy makers around the world to stimulate innovation and responsible use while ensuring global access to novel antibiotics to meet public health needs. DRIVE-AB will help to define what constitutes responsible antibiotic use, forecast future resistance trends to inform public health priorities and estimate the real value of new antibiotics based on the economic and health costs of growing antimicrobial resistance. The research results will feed into the development and testing of new alternative economic models to incentivise investment in antibacterial drug R&D. DRIVE-AB will quantitatively model and test the most promising models against both the attractiveness of the return and public health benefit. Responsible use interventions will be included in the simulations and evaluations. Such a challenging undertaking will not work without engaging with all interested stakeholders during the three year project and connecting with other initiatives globally in order to produce soundly-based recommendations for action that command widespread support.