Opportunities for development of new anti-infective medicines

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Antibiotic resistance (ABR) has now been recognized as a global public health threat, causing at least 700,000 death cases every year. Therefore, it is essential that new and rapid solutions are found to effectively overcome the consequences of ABR. Many pharmaceutical companies have found difficulties to invest in antibiotic drug discovery and development in the last two decades, mainly because of low economic return of investment. The innovative medicines initiative joint undertaking (IMI JU) has addressed this issue by investing more than 660 million euro in seven projects clustered in the New Drugs for Bad Bugs programme. These projects encompass all aspects of drug development from basic science and drug discovery, through clinical development to new business models and responsible use of antibiotics. The main objectives of the COMBACTE consortia are to deliver clinical trials in collaboration with pharmaceutical companies and to build clinical and laboratory networks to optimise scientific evaluation of new antimicrobials within Europe. The COMBACTE consortium now consists of 55 academic and 8 industrial partners and spreads in 42 countries, including more than 800 hospitals. The main objective of LAB-Net, one of the four pillars of COMBACTE, is to establish a European-wide network of laboratories that plays a key role in clinical trials on anti-infectives. By being part of LAB-Net, laboratories can benefit from training programmes and activities to build laboratory capacity and infrastructure. One of the ultimate goal of COMBACTE is to evolve into a self-sustainable clinical trial infrastructure which will support trials of anti-infectives after the formal close-out of the IMI-funded programme. The vision of such a network would be to efficiently generate rigorous evidence for new or improved diagnosis, prevention and treatment of infections and to better respond to infectious disease threats. This would be facilitated by a European multidisciplinary clinical network and innovative research approaches.

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