

The Innovative Medicines Initiative and antimicrobial resistance

The Innovative Medicines Initiative (IMI) is a partnership between the European Union and the European pharmaceutical industry. For the period 2008 – 2020, we have a total budget of over EUR 5 billion. We work by setting up and supporting large-scale, collaborative research and innovation projects that bring together diverse stakeholders to tackle some of the biggest health challenges facing the world today. It is therefore not surprising that we have a large portfolio of projects dedicated to antimicrobial resistance, where there is an immense public health need coupled with a market failure.

Our New Drugs 4 Bad Bugs programme was born out of the European Commission's 2011 action plan on antimicrobial resistance. Today, it comprises eight projects with a total budget of around EUR 650 million. Between them, they are addressing the scientific, regulatory, and business challenges that are hampering the development of new antibiotics.

For example, TRANSLOCATION has worked out the structure of many proteins in the membranes of bacteria responsible for transporting substances (including antibiotics) into and out of the cells.

Our ENABLE project has set up a platform to help promising antibiotics through the difficult earlier stages of drug development. Universities and SMEs can apply to join the project and take advantage of the platform for their small molecules. I am happy to tell you that the project recently selected one of its lead molecules, apramycin, as clinical candidate for the treatment of systemic bacterial infections caused by Gram-negative pathogens.

Our COMBACTE projects are building a self-sustaining, pan European antibacterial development network and using it to run high-quality clinical studies of new antibiotics for multi-drug resistant bacteria. Currently, the network counts over 900 hospitals and 700 laboratories in over 40 countries across Europe, and 14 clinical trials and studies are taking place.

DRIVE-AB developed recommendations for new economic models that would provide industry with an incentive to invest in this area while reconciling this with the need to use new antibiotics wisely.

Earlier this year, we expanded our work on AMR with the launch of a new programme – the AMR Accelerator. The aim of the AMR Accelerator is to progress the development of new medicines to treat or even prevent resistant bacterial infections in Europe and worldwide. The programme comprises three pillars. A Capability Building Network will coordinate the programme and carry out research to strengthen the scientific basis in the AMR field. The Tuberculosis Drug Development Network will work to accelerate the discovery of new combinations of drugs to treat TB. Finally, Portfolio Building Networks will support collaborative efforts to discover, develop and advance new and innovative agents to prevent or treat AMR. The first projects under the programme will start next year.

In conclusion, we think IMI's public-private nature means that can play a strong role in the fight against AMR:

- We are a neutral platform where different stakeholders (industry, universities, SMEs, regulators, etc.) can work together in a clearly defined framework.
- We incentivise industry investments in AMR; the large pharmaceutical companies in our projects do not receive funding but contribute to the projects in kind.
- SMEs can and do receive funding through IMI, and through projects like ENABLE, we support SMEs in the AMR space.
- Through the AMR Accelerator, we are also bringing other key stakeholders, such as the TB Alliance, into our projects as IMI Associated Partners, meaning they contribute like EFPIA companies.

IMI & AMR: more information

New Drugs for Bad Bugs: www.imi.europa.eu/projects-results/project-factsheets/nd4bb

AMR Accelerator (launched as part of IMI2 – Calls 15 & 16): <https://www.imi.europa.eu/news-events/press-releases/new-antimicrobial-resistance-accelerator-programme-part-latest-imi-calls>

About the Innovative Medicines Initiative (IMI)

IMI is a partnership between the European Union and the European pharmaceutical industry, represented by EFPIA. IMI was launched in 2008 with the ambitious goal of improving the medicines development process and making it more efficient so that patients will have faster access to better and safer medicines. IMI projects address challenges in medicines development that can only be addressed by collaborations involving all relevant stakeholders. Today, IMI's 100+ collaborative projects are delivering promising results in disease areas that are all too familiar to many Europeans, including dementia, infectious diseases, and diabetes. Globally, IMI is recognised as a pioneer of open innovation and a model for successful public-private partnerships in research. IMI has a budget of over €5 billion for the period 2008-2020. Half comes from the EU's research and innovation programmes (FP7 & Horizon 2020). The other half comes from large companies and organisations, mostly EFPIA companies. These do not receive any EU funding, but contribute to the projects 'in kind', for example by investing their researchers' time or providing access to research facilities or resources.

- Website: www.imi.europa.eu
- Twitter: @IMI_JU