

REVIVE: advancing antimicrobial R&D

Antimicrobial resistance (AMR) is a major and rapidly growing global public health threat. Responsible for more than 700,000 deaths a year, it poses a significant threat¹ to the attainment of the UN Sustainable Development Goals (SDGs), in particular SDG3, which aims to ensure healthy lives and promote wellbeing for all.²

The Global Antibiotic Research and Development Partnership (GARDP) is a not-for-profit research and development organization that addresses global public health needs by developing and delivering new or improved antibiotic treatments, while endeavouring to ensure their sustainable access.

Initiated by the World Health Organization (WHO) and the Drugs for Neglected Disease *initiative* (DNDi) in May 2016, GARDP is an important element of WHO's Global Action Plan on Antimicrobial Resistance that calls for new public-private partnerships to encourage R&D of new antimicrobial agents and diagnostics. Following a successful incubation period, GARDP became an independent legal entity in 2019.

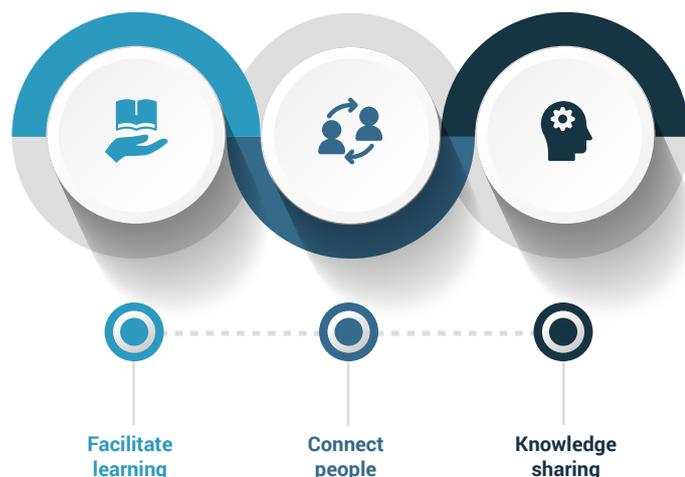
GARDP's programmes incorporate access and stewardship strategies to ensure treatments are affordable and available to all those who need them.

Partnerships are central to GARDP's model and include WHO, pharmaceutical and biotechnology companies, academia, governments, health authorities, philanthropic organisations and civil society from across the world.

Over recent decades, as industry priorities changed, many antimicrobial researchers moved into different fields or retired. This created an oft-discussed 'discovery void'.

As the world faces the growing threat of AMR, it is imperative to retrieve and maintain the knowledge and expertise of those researchers. Tackling the rise in drug-resistant infections requires global efforts to improve, accelerate and streamline antimicrobial drug discovery and R&D. Achieving this means ensuring critical knowledge is recovered and shared within the antimicrobial R&D community; including education and support to champion the new generation of antimicrobial researchers.

THREE AIMS OF REVIVE



GARDP'S REVIVE PROJECT

REVIVE is a project to connect and educate people with an interest in antimicrobial R&D, including sharing information and training materials. REVIVE's users span the globe and incorporate new researchers, current and retired world-class experts from academia and industry; drug developers and other specialists, and healthcare professionals.

REVIVE HAS THREE INTERCONNECTED AIMS

1. FACILITATE LEARNING

Achieved through

- Webinars led by antimicrobial experts, including interactive Q&A sessions.
- Co-hosting conferences, workshops and roundtables at key events.

TO DATE, REVIVE HAS

- Hosted six webinars taught by leading specialists across antimicrobial R&D on areas including clinical development of antibacterial agents, pharmacokinetics and pharmacodynamics, and safety.
- Co-organized antibiotic development 'bootcamps', workshops and roundtables, with partners such as CARB-X at major international conferences. These include those hosted by the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) and the American Society of Microbiology (ASM).
- Co-organized with the British Society for Antimicrobial Chemotherapy (BSAC), an antimicrobial chemotherapy conference 'An ABC for everyone involved in developing new antimicrobials'.

2. CONNECT PEOPLE

Achieved through

- 'Talk to an expert' – a web interface that provides researchers with access to leading experts across antimicrobial drug discovery and R&D. Users submit questions, in confidence, through an online form. The REVIVE team then connects them with the most appropriate expert.
- An open discussion forum to connect the antimicrobial R&D community.

TO DATE, REVIVE HAS

- Engaged more than 100 experts in the programme, with 65 leading specialists featured on the website with short biographies.

3. SHARE KNOWLEDGE

Achieved through

- Regular blogs authored by GARDP and external guests on key topics in the field of AMR.
- A resources section (currently under development) to facilitate learning through linking third-party tools – such as protocols for standard techniques, strain collections and databases – and materials with new content developed by REVIVE. All resources will be open-access, to maximise their reach.

TO DATE, REVIVE HAS

- Published eight blogs from renowned international experts including Lord Jim O'Neill, Manica Balasegaram and Ursula Theuretzbacher.

LOOKING AHEAD

REVIVE continues to develop in collaboration with its community. By the end of 2019, as well as further workshops, expert blogs and symposia, the website will introduce its resources section, including an antimicrobial encyclopaedia.

A GLOBAL COLLABORATION



REVIVE has partnered with experts and been accessed by web users from across the world.

The webinars have had 1008 participants from more than 41 countries.

1 O'Neill, J. (Chair) Antimicrobial Resistance: *Tackling a crisis for the health and wealth of nations*: The Review on Antimicrobial Resistance, 2016

2 The 2030 Agenda for Sustainable Development, 2015.