

Call: 6th transnational call for the JPIAMR within the ERA-NET JPI-EC-AMR:
Innovations against antibiotic-resistant bacteria: New targets, compounds and tools

Title: Anti-biofilm therapies using local application of bacteriophages

Acronym: ANTIBIO-LAB

Consortium composition

Type	Name	Institute	Country
Coordinator	Fintan Moriarty	AO Research Institute Davos	Switzerland
Partner	Andrej Trampuz	Universitätsmedizin Berlin	Germany
Partner	Metsemakers Willem-Jan	University Hospitals Leuven	Belgium
Partner	David Eglin	AO Research Institute Davos	Switzerland
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Abstract

The use of medical devices has had an enormously positive impact on patient care. However, approximately 5% of patients across all medical specialities can develop an infection associated with the device, which can have disastrous consequences. These bacterial infections involve biofilm formation and are therefore always highly antibiotic tolerant, even in the absence of specific antibiotic resistance genes. The antibiotic recalcitrance of the biofilm leads to poor treatment success rates and often requires implant removal to treat the infection. The ANTIBIO-LAB consortium's overall aim is to introduce a new concept in the treatment of antibiotic resistant biofilm infections by delivering biofilm-adapted bacteriophages in a customised local delivery vehicle. The methods that we will employ draw from our collective experience in phage isolation, phage *in vitro* evolution, local delivery vehicle design, and clinically relevant *in vitro* and *in vivo* models of biofilm infection.