Improved candidate selection through wound-relevant evaluation of Precision Lysin Therapeutics

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FACTS & FIGURES

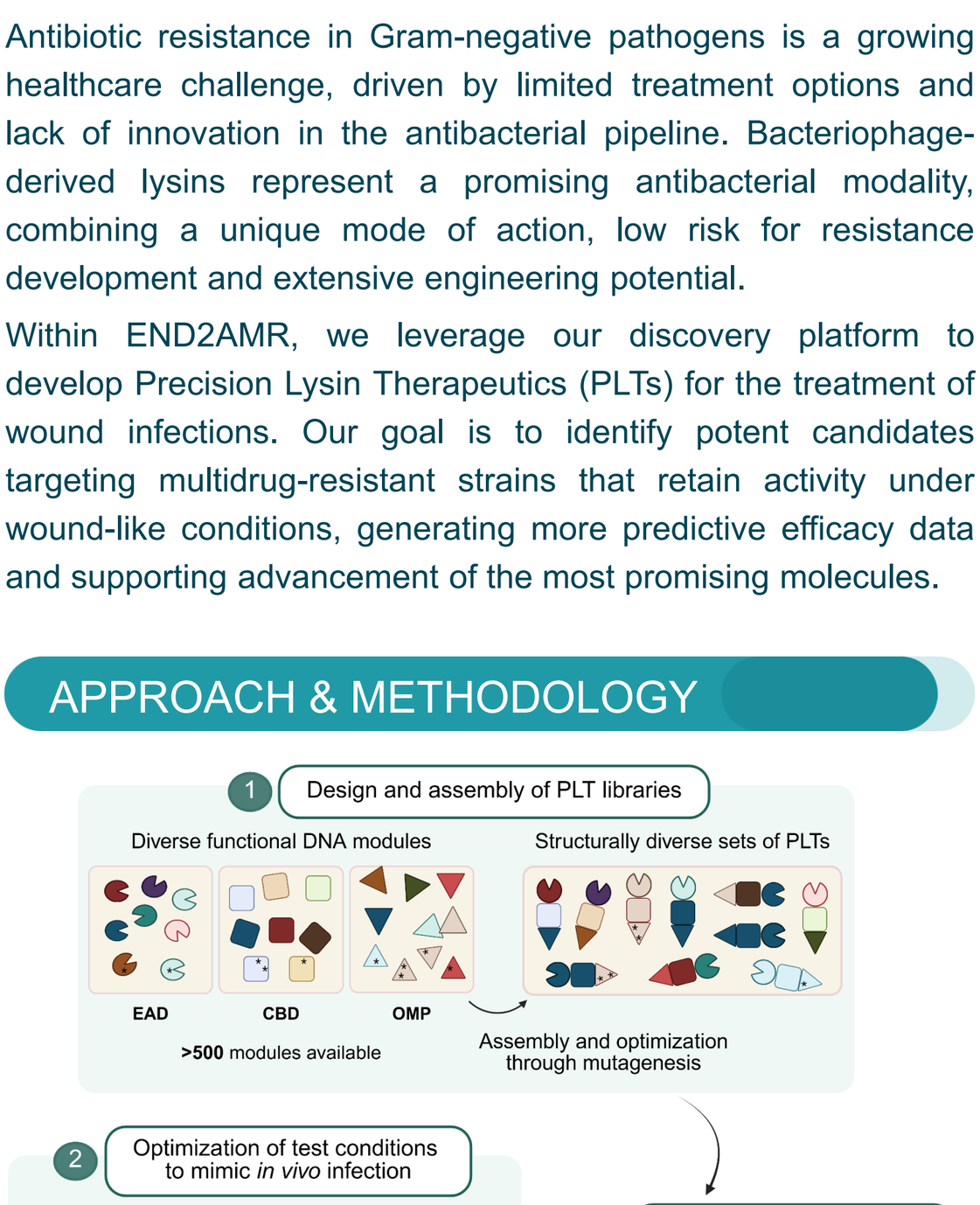
Start date:	01/01/2026
End date:	31/12/2030
IHI funding:	14 970 112 €
Industry contribution:	14 973 508 €
Total Cost:	29 943 620 €
Project website:	end2amr.org
Social media:	linkedin.com/company/end2amr

CHALLENGE

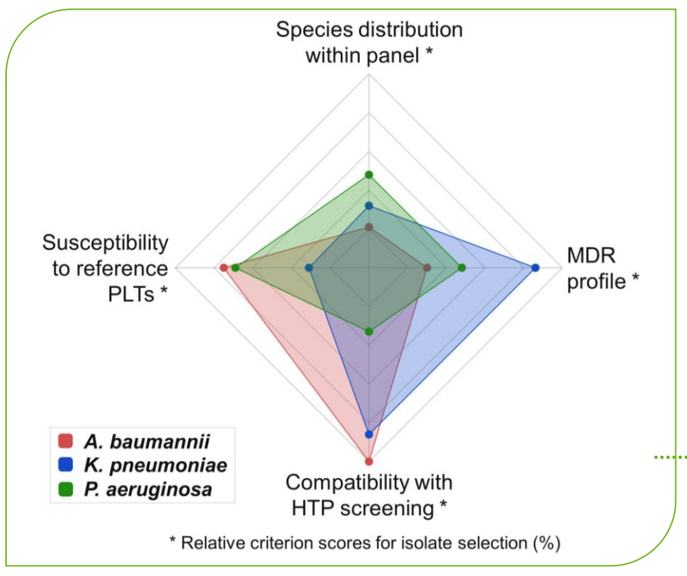
Antibiotic resistance in Gram-negative pathogens is a growing healthcare challenge, driven by limited treatment options and lack of innovation in the antibacterial pipeline. Bacteriophage-derived lysins represent a promising antibacterial modality, combining a unique mode of action, low risk for resistance development and extensive engineering potential.

Within END2AMR, we leverage our discovery platform to develop Precision Lysin Therapeutics (PLTs) for the treatment of wound infections. Our goal is to identify potent candidates targeting multidrug-resistant strains that retain activity under wound-like conditions, generating more predictive efficacy data and supporting advancement of the most promising molecules.

APPROACH & METHODOLOGY



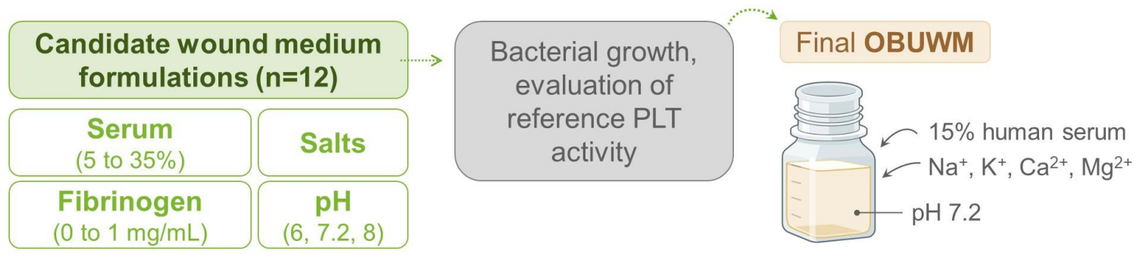
RESULTS



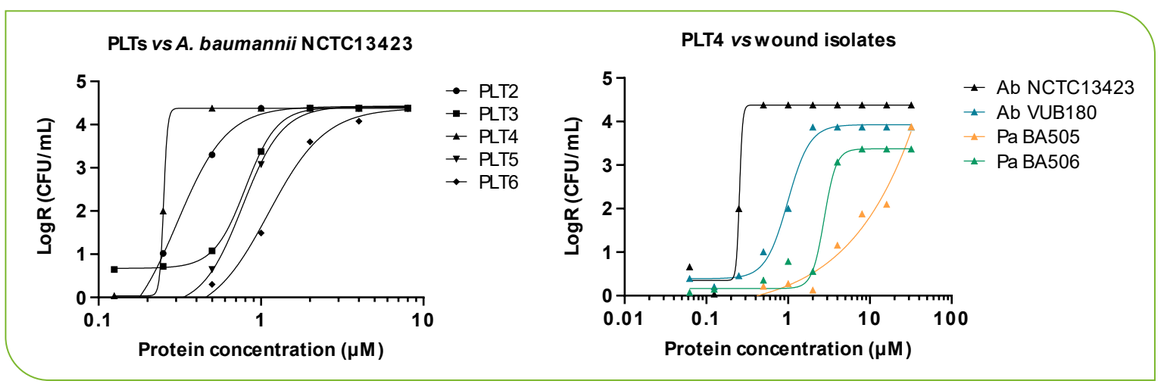
Selection of a **diverse** and **clinically relevant panel** of major Gram-negative wound/skin infection pathogens.

- **3** priority pathogens
- **45** clinical isolates
- Wound infection origin

Systematic optimization of key host and environmental parameters to develop a wound-mimicking medium.

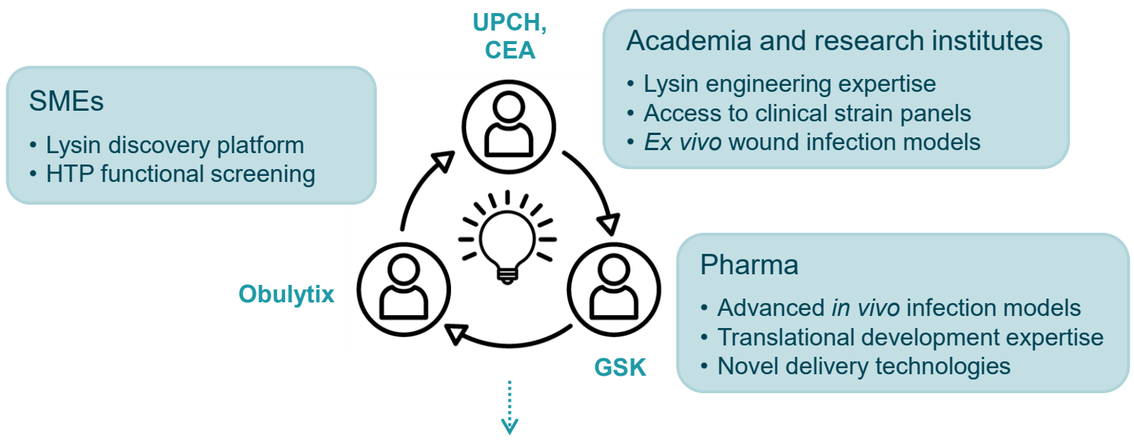


Proof-of-concept: comparative activity assessment and prioritization of PLTs under wound-relevant conditions.



VALUE OF IHI COLLABORATION

The END2AMR consortium combines complementary expertise and technologies to advance engineered phage lysins from early discovery to preclinical development.



CAREER IMPACT

Participation in the IHI project expanded my perspective beyond academic research and highlighted the value of public-private collaboration in addressing complex healthcare challenges.

Areas of professional development included:

- Experience with advanced microbiology discovery tools
- Scientific communication through consortium interactions
- Exposure to industrial and regulatory considerations
- Understanding challenges in antimicrobial development

This project is supported by the Innovative Health Initiative Joint Undertaking and its members.