
Icelandic Startup Bags €6M EU Grant to Fight Drug-resistant Infections

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Reykjavik-based Akthelia Pharmaceuticals and the University of Iceland have been awarded a €6m grant by Horizon Europe to combat antimicrobial resistance (AMR). This occurs when bacteria, viruses, fungi, and parasites evolve and no longer respond to medicines, making infections harder to treat.

AMR is listed among the WHO's most pressing health threats of our time, with the potential to give rise to the next global pandemic as "pan-drug"-resistant strains emerge. It's also estimated that AMR associated infections already contribute to approximately 5 million deaths per year — more than AIDS/HIV or malaria.

Now, the EU-funded IN-ARMOR project, led by Aktelia and the University of [Iceland](#), aims to tackle this challenge in collaboration with eight other universities and institutes and six companies across Europe.

The project's aim is to develop a new type of drug that will boost the body's natural immune response, also known as "innate immunity." It will address infections caused by bacteria, viruses, and fungi.

IN-ARMOR will tap into Aktelia's R&D on innate immunity and antimicrobial peptides – short protein chains that play a key role in the immune systems of mammals, including humans. The startup's work builds on the research of the University of [Iceland](#), which is one the company's owners.

The project will develop the new medicine using computer-aided drug design and in-silico approaches. It will harness nanotechnology to target drugs to specific areas within the body,

extending their effectiveness and reducing side effects.

Upon completion, IN-ARMOR will move to clinical validation. The team hopes that the new drug could be used not only in combination with other antibiotics, but also by itself.

“By concentrating on stimulating the body’s innate defences against infection, we can avoid the use of traditional antibiotics and develop revolutionary new treatments to tackle multiresistant bacteria. This could save countless lives across the world,” said Guðmundur Hrafn Guðmundsson, professor at the University of [Iceland](#) and CSO at Akthelia.

If successful, IN-ARMOR would have the potential to save long-term €107 billion in antibiotics development. Furthermore, it would reduce the global disease burden by 97 million DALYs — the years of life lost due to premature mortality or the years lived with a disability as a result of a disease.

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