

Stirling Project Awarded £770,000 to Combat Antimicrobial Resistance in Aquaculture

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A team of scientists from the [University of Stirling](#) has been awarded a significant grant of £770,000 to support the development and commercialization of a new vaccine that could revolutionize the aquaculture industry.

The project, led by the Institute of Aquaculture, aims to address the pressing issue of antimicrobial resistance (AMR) in Vietnamese catfish farming. By reducing the reliance on antibiotics, this innovative vaccine could have a profound impact on both animal and human health.

The multidisciplinary team, which includes psychologists and behavioral economists, will utilize the funding to further refine the vaccine and promote its adoption among aquaculture farmers in Vietnam. The project seeks to create a more sustainable and resilient aquaculture sector by reducing the harmful effects of antibiotic overuse.

Professor Margaret Crumlish, leading the project, emphasized the importance of addressing vaccine hesitancy and promoting vaccination strategies to combat AMR. "The novelty of this project lies not only in the new immersion-based vaccine but also in the integration of behavioral sciences to address vaccine hesitancy directly," she stated.

Vietnam, a major aquaculture producer, has faced an AMR crisis due to the excessive use of antibiotics in catfish farming. The new vaccine offers a promising solution to this problem, providing effective protection against bacterial diseases while reducing the need for antibiotics.

The project's first phase, completed in 2019, successfully developed an immersion-based vaccine that demonstrated 70% protection against two major bacterial diseases. Additionally, the team conducted

research to understand the factors influencing vaccine hesitancy among Vietnamese farmers.

The second phase of the project will focus on advancing the vaccine's production pipeline and implementing strategies to encourage farmers to adopt the vaccine and reduce their reliance on antibiotics. The team will also explore the impact of the COVID-19 pandemic on vaccine attitudes and its potential influence on vaccine hesitancy within the aquaculture sector.

This project, funded by Canada's International Development Research Centre and the UK Department of Health and Social Care, is a significant step towards addressing the global challenge of antimicrobial resistance. By promoting the use of vaccines in aquaculture, the researchers aim to create a more sustainable and resilient food production system.