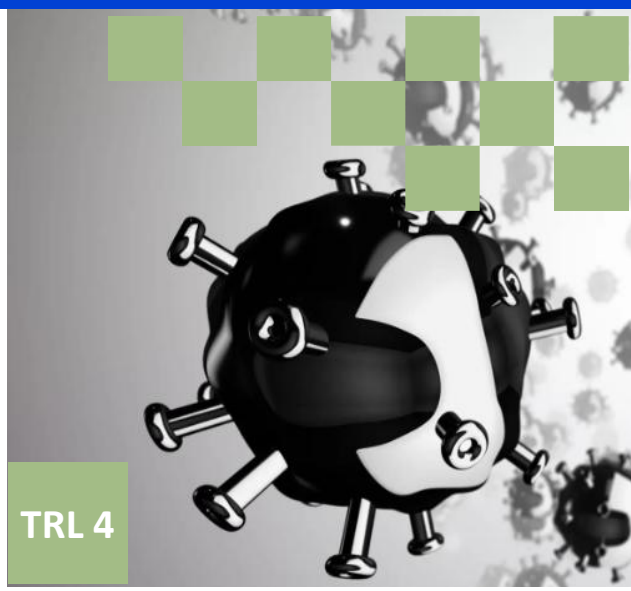
University of Gdańsk
Technology Transfer Office

Bio-tech

Bacillus subtillis as an immunogenic composition of an oral influenza A vaccine



About technology

Influenza is an infectious respiratory disease caused by infection with the Influenzavirus.

The influenza virus belongs to the family Orthomyxoviridae and, due to its high virulence and adaptability, it is one of the most dangerous pathogens of warm-blooded vertebrates in the world. There are three types of virus, labelled A, B and C, but only type A viruses pose a serious problem, causing severe symptoms during infection.

An **effective vaccine** against influenza virus infections is a major challenge mainly due to the antigenic variability of the virus. Of the many antigens tested, the extracellular domain of the M2 protein of influenza A virus (M2e) has high homology to all influenza A virus strains, and anti-M2e antibodies have shown preventive activity in animal model studies, making it a potential candidate for producing a universal influenza vaccine. However, due to the low immunogenicity of M2e, a vaccine based on this antigen requires some modifications to induce an effective immune response. In the present study, we evaluated the use of *Bacillus subtilis* spores as a carrier of M2e influenza antigen in mucosal immunisation.

Technology related to offer no. 043/2017 and 045/2017.

Research Team

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IP Protection

The invention is the subject of patent protection

- **PL: Pat.228594**

Implementation progress

TRL 4 –Technology validated in laboratory conditions.

Cooperation opportunities

- Licensing agreement
- Transfer of ownership
- Spin off

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