

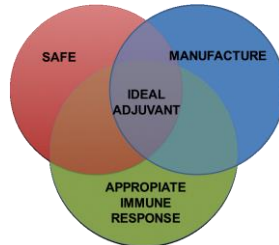


Innovation

- ✓ Encapsulation of a subcellular extract with a mucoadhesive polymeric system that increases the mucosal vaccination efficacy.

Advantages

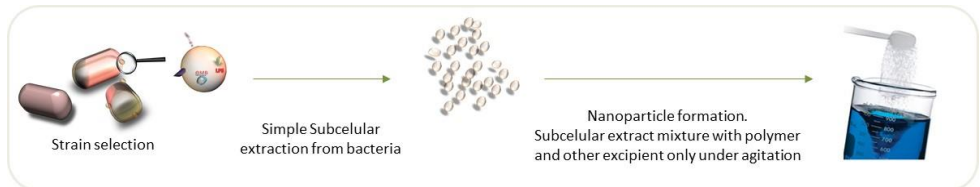
- ✓ Safe with no or few side-effects
- ✓ All excipients are GRAS listed



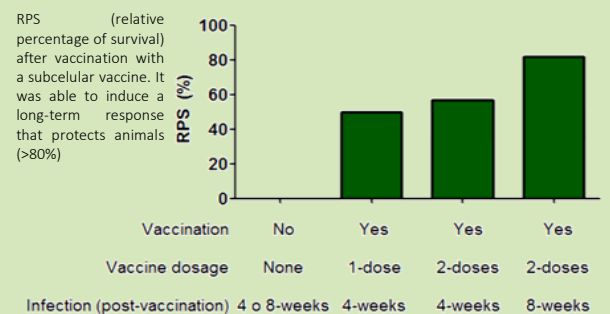
- ✓ Easy and cost-effective production
- ✓ Avoids the use of special equipment and techniques
- ✓ Production using standard processes of solution preparation
- ✓ No purification steps
- ✓ High residence time in the mucosa-associated lymphoid tissue (MALT)
- ✓ Enhanced antigen presentation and sustained release of the antigen

Low cost of goods ensures excellent profit margin

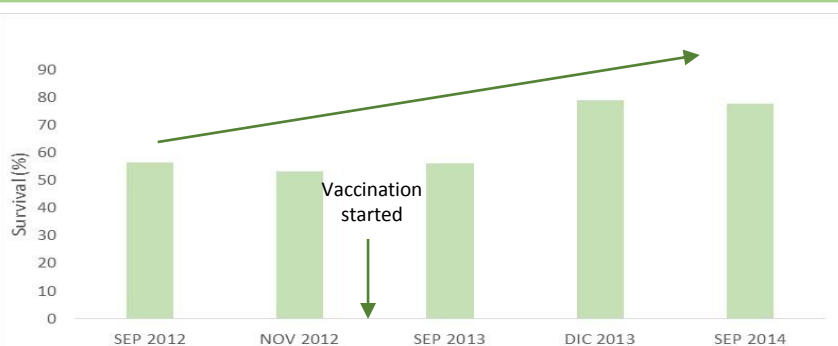
- ✓ Avoids the use of chromatography for purification
- ✓ Simple extraction buffer
- ✓ Avoids the use of special equipment and techniques
- ✓ Easy to scale-up



The vaccine was able to strongly protect animals from the infection (controlled conditions)
It was able to induce a long-term response that protects animals (RPS>80%)



Safety profile of the vaccine by immersion and injection administration



The vaccine was able to increase fish farm productivity (field conditions)
High fish density

BIONANOPLUS

Bionanoplus is a company specialized in providing solutions to drug delivery problems. Bionanoplus has developed different technology platforms and products based on different mucoadhesive polymeric systems that allow tackling delivery, processing, and efficacy issues of molecules with cheap and easy to scale-up technologies that fit market needs and regulatory requirements.

Technology protected. PCT/EP2013/052795

Bionanoplus is seeking for partner for out-licensing and/or product co-development