Research Areas

- Tool Development
- Clinical Trial
- Basic Research
- Product Development
- Vaccine

At a Glance

- Status: Completed Consortium
- Year Launched: 2008
- Initiating Organization: European Commission’s 7th Framework Programme
- Initiator Type: Government
- Location: Europe

Abstract

Respiratory infections are today still among the first causes of death in the world. In addition to mortality, the morbidity of respiratory infections poses an important economic and social burden. Among respiratory infections, pertussis or whooping cough remains one of the leading causes of morbidity and mortality, despite wide vaccination coverage with efficacious vaccines. With 300,000 pertussis-linked global annual deaths and approximately 40 million cases per year, whooping cough is in fact the least well-controlled vaccine-preventable disease. These facts illustrate the shortcomings of current vaccination strategies. CHILD-INNOVAC have developed an attenuated B. pertussis strain, named BPZE1, to be delivered as a nasal live vaccine in order to mimic as much as possible natural infection without causing disease.

Mission

The objectives of the CHILD-INNOVAC project were to:
(i) obtain as much pre-clinical efficacy and safety data on BPZE1;
(ii) to improve our knowledge on T and B cell responses to pertussis infection and vaccination;
(iii) to evaluate the effect of BPZE1 and its recombinant derivatives on heterologous infections, using respiratory syncytial virus (RSV); and
(iv) to prepare clinical lots of BPZE1 and perform a first-in-man, placebo-controlled, double-blind phase I safety trial in adult volunteers, as a first step to further clinical development.

**Consortium History**

The consortium began in 2008

**Structure & Governance**

The is a project of the European Commission’s 7th Framework Programme

**Financing**

Financed by the European Commission’s 7th Framework Programme

**Intellectual Property**

The project coordination led by Inserm and Inserm-Transfert (IT) secured intellectual property of 12 Research and Innovation generated from the project.

**Patent Engagement**
Patients were used by different partners for studies relating to respiratory infections

**Impact/Accomplishment**

One of the most exciting observations made in this project is the protective effect of BPZE1 against non-related respiratory viruses, such as RSV. Vaccination with BPZE1 protected mice against weight loss induced by RSV, which could be correlated with the induction of IL-10 and regulatory T cells, while maintaining the Th1 and Th17 responses. Recombinant BPZE1 strains producing protective RSV epitopes were then constructed in order to combine this non-specific protective effect with antigen-specific protection.

**Links/Social Media Feed**

Homepage  http://cordis.europa.eu/result/rcn/55442_en.html

**Points of Contact**

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**Sponsors & Partners**

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Inserm-Transfert  
Universite Libre de Bruxelles  
Istituto Superiore di Sanita  
National University of Ireland
Imperial College London
Swedish Institute for Infectious Disease Control
National Institute for Public Health Environment
Innogenetics N.V.
Ministerie Van Volkgezondheid

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