Innovation Portfolio

Carbon Nanotube Solubilization and Activation Method

Problem

Immunizing animals using peptides requires carriers to assist the immune system in recognizing the target antigen. However, traditional peptide carriers used in experimental animal immunizations, such as BSA and KLH, can generate a humoral immune response against the animals' own organisms. This hinders the production of specific antibodies against the target antigen.

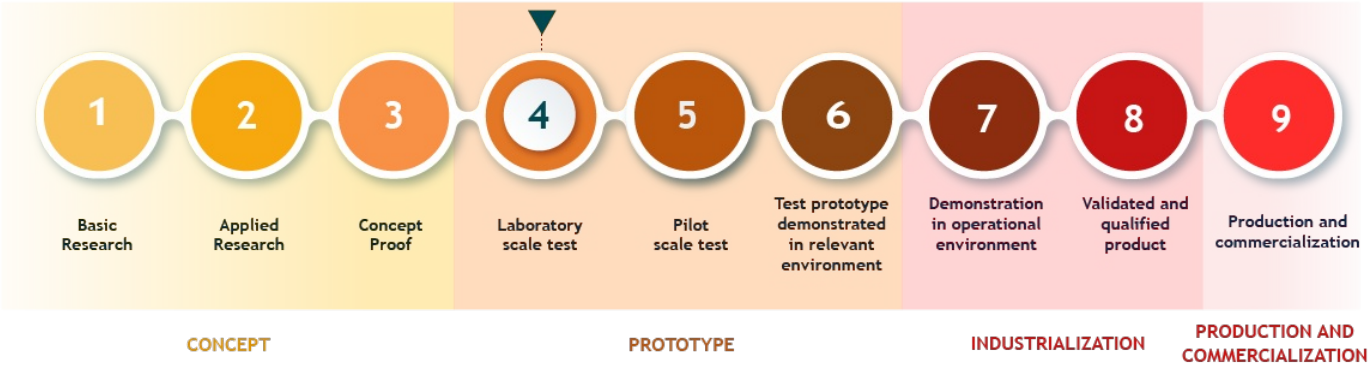
Solution

This technology proposes the use of carbon nanotubes (CNTs) as carriers for peptides in animal immunization. A method for solubilizing CNTs in aqueous solutions with long-term stability and a method for activating the solubilized CNTs have been developed by the inventor. The use of CNTs as lipid carriers was tested in mice and chickens, resulting in the specific production of antibodies against the antigen, without generating a humoral response, unlike the current immunization method.

Differential

- Non-toxic
- High performance
- Production of specific antibodies

Development stage



What we are searching for

Seeking partnerships for co-development, larger-scale evaluation of solubilized carbon nanotubes as vaccine carriers, product stability assessment, and eventual licensing of the patent for production and commercialization of solubilized nanotubes and/or services.

WANT MORE INFORMATION? CONTACT US!

Inventors

Luis André Morais Mariúba

Intellectual Property

Type
Invention Patent

Description
Patent application filed in Brazil.

ACCESS PATENT DOCUMENT

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Campus Fiocruz Maré - Av. Brasil, 4036 - Maré, Rio de Janeiro - RJ

CEP: 21040-361

portfolio@fiocruz.br

+55 (21) 3282-9080