Bio-tech

Chimeric virus-like particles exposing HCV antigenic sequences for preventive treatment of HCV and/or HBV infection

About the solution

The invention relates to chimeric virus-like particles (VLPs) based on the hepatitis B virus surface antigen (sHBsAg) displaying selected conserved antigenic sequences from the HCV E2 glycoprotein.

The developed constructs form the basis of a next-generation bivalent recombinant vaccine inducing immune responses against both HCV and HBV.

The chosen E2 epitopes show low variability across HCV genotypes and the ability to elicit broadly neutralizing antibodies.

The invention enables the development of an effective and safe vaccine for the prevention and treatment of HCV and/or HBV infections

IP Protection

The invention is protected by the Polish Patent Office under the following number: **Pat.239831**

Technology readiness level

TRL 4 - Technology validated in laboratory conditions.

Research Team

University of Gdańsk
PhD Katarzyna Grzyb
MSc Anna Czarnota
Prof. Krystyna Bieńkowska-Szewczyk

Applications

- Prophylactic vaccine against HCV,
- Bivalent HBV/HCV vaccine based on VLP particles,
- Adjunct immunotherapy after antiviral treatment.

Cooperation opportunities

- Joint preclinical and immunogenicity studies,
- Technology transfer and GMP-scale VLP production,
- Partnerships for clinical studies and licensing.

biuro@ctt.ug.edu.pl
ul. Wita Stwosza 63,
80-308 Gdańsk
www.ctt.ug.edu.pl

Małgorzata Bastian-Michalska
+48 725 994 400