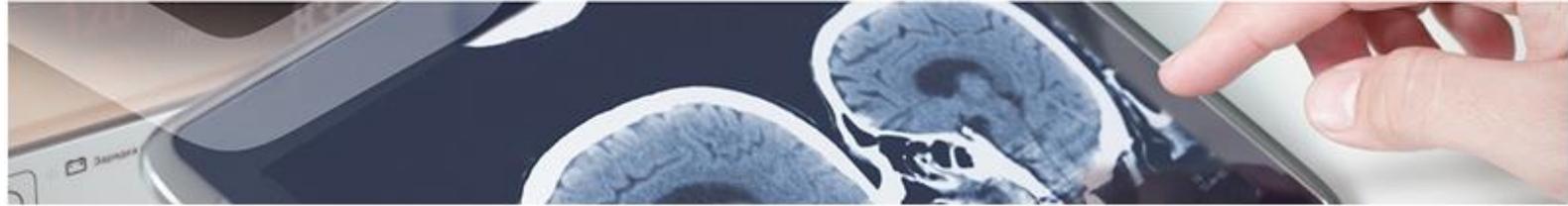


## Therapy

# NS3 Protease inhibitors of the HCV obtained from edible fungus

A research group of the Andalusian Public Health System, in collaboration with the University of Seville and the CIBERehd, has identified and assayed an extract which inhibits the NS3 protease of the hepatitis C virus (HCV), useful for the treatment or prevention of infections caused by HCV.



## Description

The knowledge about the replicative cycle of hepatitis C virus has allowed identifying useful therapeutic targets for the development of new drugs. One of the most advanced drug targets is the NS3/ 4 protease region. In the past two years, several drugs against HCV whose main targets are the NS3 and NS5A/ B proteins, and which have demonstrated to be highly effective (with response rates above 90 %) have been developed. However, their high price makes complicated the access to them. Therefore, the search for NS3 protease inhibitors, efficient and economically affordable, remains a challenge in the management of hepatitis C.

Our research group has identified and assayed a natural non-toxic product useful for the prevention and treatment of HCV infections and other pathologies caused by *Flaviviridae* viruses by oral administration even incorporated into the diet. These aqueous extracts from edible fungi (*Agaricus bisporus*, *Pleurotus*, *Shiitake*) are useful as inhibitors of NS3 protease HCV virus. These extracts would allow prevention of hepatitis C, efficiently contributing to the reduction of the disease and the easement of treatments. *In vitro* assays have been completed and scale-up assays have been performed showing that the process for obtaining and preparing these extracts is scalable at a plant-level production.



## Advantages

- Preventive treatment easily incorporable to diet.
- This preventive treatment would be much cheaper than current available treatments for HCV.
- Oral administration.
- Natural non-toxic product.



## Intellectual property

This technology is covered by a Spanish patent application with possibility of international extension.



## Aims

We are looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this innovative technology.



## Classification

Field: Biotech – Pharma (Therapy)  
Technology: Nutrition, Prebiotics and Probiotics.  
Pathology: Infectious diseases