

Máster en Investigación Biomédica Facultad de Ciencias

## **Research Project Proposal**

Academic year 2015-2016

## Project Nº 22

**Title:** Development of new treatments for chronic hepatitis delta infection

**Department/ Laboratory** Laboratory of gene therapy for rare diseases. Gene Therapy and Regulation of gene expression. CIMA

Director 1 Gloria Gonzalez Asequinolaza

Contact: <a href="mailto:gqasequi@unav.es">qqasequi@unav.es</a> 948194700 x4024

Codirector: Rafael Aldabe
Contact: raldabe@unav.es

## **Summary**

HDV currently infects about 20 million people worldwide and is most common among populations using inject-able drugs particularly in countries bordering the Mediterranean Sea. HDV frequently causes fulminant hepatitis in both human and nonhuman primate host. Hepatitis Delta virus (HDV) is a human sub viral pathogen which is able to infect only such individuals who were previously or are simultaneously infected with Hepatitis B virus. HDV is able to replicate its RNA within cells in the absence of hepatitis B virus but require hepatitis B antigen for packaging and release of HDV virion. Therefore immune prophylaxis against HDV is achieved by vaccination against hepatitis B virus. This mode of prevention is effective only in case of coinfections in hepatitis B virus susceptible individuals but it fails to show any significant effect in case of super-infection, which is more serious state of health. So there is an urgent need to identify the suitable therapeutic molecule for the treatment of HDV.

Recently we have developed a new cell and animal model for chronic hepatitis Delta infection (manuscript in preparation), using this model we will identified small molecules with capacity to inhibit HDV replication.

## **POSSIBILITY OF PhD**

YES\*

\* (PhD grant required)