

## MASTER'S DEGREE IN BIOMEDICAL RESEARCH Research Project Proposal

Academic year 2024-2025

## Project № 39

**Title:** Occult hepatitis B virus infection: diagnostic strategy and estimated prevalence.

## **Department/Laboratory**

DEPARTMENT OF CLINICAL MICROBIOLOGY. CLINIC UNIVERSITY OF NAVARRA

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**Summary** Short summary of the project with a **maximum extension of 250 words**, including the goals and the methodology that will be used

Currently, there is a high number of oncological, hematological and diagnosed autoimmune disease patients being treated with immunosuppressive drugs or new biological therapies. All of them are at risk of reactivation of latent or chronic infections, such as hepatitis B virus (HBV) infection. The classic diagnosis of this infection (HBV) is made by detecting markers of active infection (HBS Ag) and past infection (anti-HBc, anti-HBs). The presence of anti-HBc and/or anti-HBs antibodies in the absence of HBs-Ag is considered as cure of the infection or immunity against it. HBV has the ability to remain integrated in the hepatocyte with the possibility of reactivating during immunosuppression. Detection of HBV-DNA in plasma allows detection of occult HBV infection (OBI) in HBsAg-negative patients who have a higher risk of liver complications. The prevalence of OBI depends on different factors such as host immunity, endemicity, coinfection with other viruses, vaccination status or trial characteristics. The objective our project is to estimate the prevalence of OBI in our population if it is consistent with previously published data. Moreover, to evaluate the ability of different methodologies to diagnosis OBI.

yes	
no	Χ

Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator?