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## **Blood test developed for non-alcoholic fatty liver disease diagnosis**

Researchers from the Metabolomics unit at CICbioGUNE-CIBERehd and OWL Genomics Ltd. (Bilbao, Spain) have used metabolomics technology to develop a blood test for non-alcoholic fatty liver disease (NAFLD) diagnosis. This research has been recently published in The Journal of Proteome Research. OWL Genomics Ltd. is beginning to commercialize this new test in Spain.

In the work published in the August 4, 2010 issue, of The Journal of Proteome Research, the scientists used a genetically modified mouse model, which spontaneously develops fatty liver, to carry out parallel metabolic profiling studies in human and mouse blood. Using this approach, a set of common biomarker metabolites in human and mouse NAFLD was identified. The blood NAFLD metabolic signature includes free fatty acids, phospholipids and bile acids.

Having established the blood NAFLD metabolic signature, the scientists focused on the identification of biomarkers discriminating between human steatosis and NASH. Using blood samples from biopsy proven steatosis and NASH patients, they identified several biomarkers for distinguishing these two liver conditions. This list of blood NASH biomarkers includes further phospholipid subclasses (diacylglycerophosphocholine and ether glycerolphospholipids) and arachidonic acid. This is the first global serum metabolite profiling study correlating biopsy proven steatosis and NASH histology in a BMI matched, nondiabetic human population.

LINK: <http://www.ncbi.nlm.nih.gov/pubmed/20684516>