

Non-Native Speakers of English Editing Certificate

To whom it may concern,

The manuscript entitled **"Machine learning insights concerning inflammatory and liver-related risk comorbidities in non-communicable and viral diseases"** whose revised abstract is enclosed below, has been double checked for English language in order to further polish the article by the IMDEA Communication service and received approval for resubmission in the World Journal of Gastroenterology.

Abstract:

The liver is a key organ involved in a wide range of functions, whose damage can lead to chronic liver disease (CLD). CLD accounts for more than two million deaths worldwide, becoming a social and economic burden for most countries. Among the different factors that can cause CLD, alcohol abuse, viruses, drug treatments, and unhealthy dietary patterns top the list. These conditions prompt to perpetuate an inflammatory environment and oxidative stress imbalance that favour the development of hepatic fibrogenesis. High stages of fibrosis can eventually lead to cirrhosis or hepatocellular carcinoma (HCC). Despite the advances achieved in this field, new approaches are needed for the prevention, diagnosis, treatment, and prognosis of CLD. In this context, the scientific community is using machine learning (ML) algorithms to integrate and process vast amounts of data with unprecedented performance. ML techniques allow the integration of anthropometric, genetic, clinical, biochemical, dietary, lifestyle and omics data, giving new insights to tackle CLD and bringing personalized medicine a step closer. This review summarises the investigations where ML techniques have been applied to study new approaches that could be used in inflammatory-related, hepatitis viruses-induced, and COVID-19-induced liver damage and enlighten the factors involved in CLD development.

Sincerely,

Sara Castillo

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