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Madrid, November 14th, 2018

Your Reference: WJG article # 42697

Dear Professor Ma,

Please find enclosed the revised version of the invited minireview entitled **Post-translational modifications of prostaglandin-endoperoxide synthase 2 (PTGS2) in colorectal cancer: an update**, as previously invited from your e-mail dated 1st July, 2018.

In this review, we analyze the role of post-translational modifications of COX-2 and the prostaglandins derived from this enzyme in CRC. This review is accompanied by a basic work in which we have analyzed the modifications of COX-2 in human samples from CRC, supported by studies in human tumoral colonic cell lines. In these studies, we have used HRMAS, proteomic and biochemical approaches to support our conclusions, and is currently under revision in WJG.

We are also providing a replay to the Editorial Report

Awaiting your news with much interest,
I remain

Lisardo Boscá

Comment to the Editorial Report:

We fully agree on the comments issued in the Editorial Report and thank to the Reviewers for their efforts to improve the quality of our minireview.

First, we changed the definition of cyclooxygenases by their standard recognized definition. Indeed, the use of PGTS instead of COX is a relevant issue to avoid confusion on the mitochondrial COX proteins. Accordingly, we have used the official standard definition and abbreviation for the gene and protein along the text.

We have included the suggested comments on the novel view of inflammation-dependent molecular pathological epidemiology, intended to explain the diversity in the oncogenic mechanisms occurring in CRC. This view may unravel unexpected molecular mechanisms leading to the observed variety in biomarkers associated to the oncologic process, contributing to a better application of precision medicine issues. All these comments and references have been included in the present version.