

## Outdated Perspectives Potentially Biased Conclusory Statements Regarding Herbalife Products

Dear Editor,

In the October 2013 issue of Journal of Applied Pharmaceutical Science, an article entitled *Evaluation of Herbalife Nutritional Supplements in the Hepatic Function of Rats* discusses the findings associated with an unspecified Herbalife shake and protein supplement consumed by rats (Feder et al. 2013). The authors concluded that no adverse hepatic outcomes were observed during this two-month randomized controlled trial. However, we would like to acknowledge the inconsistency between the negative outcomes of this study and the authors' insistence that Herbalife products have been deemed unsafe historically and require further research to prove otherwise. This kind of statement clearly lacks scientific substantiation and exemplifies potential bias amongst the authors.

The authors have omitted any reference to other publications involving independent expert reviews of Herbalife products which question the validity of past methodology used to evaluate these cases (Teschke et al. 2013). In fact, many of these evaluations have resulted in calculated causal associations that are significantly weaker than previously deduced. It has even been suggested that there are alternative etiologies for hepatotoxicity in the Herbalife case reports reportedly involving reintroduction (re-challenge) of product consumption (Teschke et al. 2013). Furthermore, these recent reviews have acknowledged the complexity of dietary supplements and note that a specific suspect agent is often not identified in historical data and as a result, accurate causality scoring cannot be assigned. It should also be noted that no suspect ingredient or product has been common to all the published case reports involving Herbalife products to date. The well-controlled environment in this study is ideal for determining a more accurate causal association (if any) between the tested Herbalife products and potential hepatotoxicity. Therefore, these outcomes are much more reliable than the retrospective cases used to support their argument for further research on this matter. Additionally, the authors do not reference the rebuttals which Herbalife has published to date to counter the various allegations questioning the safety of our entire product line (Ignarro et al. 2008, Appelhans et al, 2011, Appelhans et al. 2011, Appelhans et al 2012, Bejar et al. 2011, Appelhans et al, 2013, Appelhans et al. 2013, Appelhans et al. 2013). We feel that it is important for the Journal and its readership to be aware of the

different perspectives regarding this issue so that more informed conclusions can be made in future assessments involving our products.

In conclusion, Herbalife is confident in the safety and quality of its products and welcomes objective scientific discussion regarding the hundreds of products which we manufacture globally.

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