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Grup de RecercaNitrogen-Obesitat

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The President
Hawaii House Committee on Health
Honolulu, Hawaii
United States of America

Sir/Madam,

I am aware that your Committee is prepared to discuss the pertinence of banning the use of aspartame in products for human use, from drugs to foods. Since I am one of the few scientists that have a direct working knowledge of the metabolism effects of this drug, I feel that it is mu duty to give you the reasons why I think that this compound should not be allowed for human use.

In order to test a hypothesis repeatedly maintained without experimental proof that the incorporation of carbon from labeled aspartame found in proteins of experimental animals was due to normal metabolic incorporation of this carbon into protein amino acids through the 1C pathways, we devised a simple set of experiments in which we fed radioactively labeled aspartame to groups of rats. We found (and published in a peer-reviewed Journal, Life Sciences) that the label specifically linked to the methanol moiety of aspartame found its way into both protein, RNA, and DNA. We also proved beyond doubt that this incorporation was not due to its incorporation to normal amino acids (methionine) or nucleic acid components (pyrimidines), but was the consequence of the formation of adducts of formaldehyde. This effect was observed in most tissues, including the retina, liver and brain, and was observed with fairly low doses of the drug, an effect potentiated by repeated dosing.

The danger associated with formaldehyde toxicity, as that demonstrated by us in aspartame-treated rats is mainly associated to the formation of adducts with DNA that result in mutations, the base for cancer and cell reproduction errors. In addition, proteins were affected, with the consequent loss of function and metabolic derangement. The publication of this paper resulted in a serious attack, in a paper published shortly afterwards in the same Journal, by a researcher closely related to the company producing this compound in which my integrity and that of my co-authors was challenged as were our results (without any experiment done, and no actual discussion of our results, methodology or conclusions). The pressure we felt (and an unexplained drop in our financing) helped us to abandon further studies on aspartame. Nevertheless, our results stand and have not been proved wrong, in fact they are the only study as far as we know that proves the direct interaction of aspartame-derived carbon in the formation of DNA adducts in vivo. This report, in line with all the studies done using labeled aspartame, was ignored by the European Union Committee on Food Safety and a number of other food control Agencies at the prompting of industry-related lobbies.

I am very sorry that the health of so many people depends on a product that should not be available for human consumption, that is harmful and which long-time effects have not been established nor even investigated. I am suggesting that a preventive ban be established on its use (or at least include an explanatory label in all products that contain aspartame in line with the notices on tobacco use), but also that a complete, independent and unbiased study be carried out to prove whether the ill-effects observed at the molecular level are translated into serious health harm as many of us, basic scientists fear.

Please, take this opportunity to help people first to know, second to decide and third to take them out of harm's way.

Thank you very much for allowing me to give my testimony. Please, let me know if you require further information or more detailed explanations justifying the position I have just outlined.

Sincerely,

Marià Alemany PhD
Professor of Nutrition and Food Science