



## Letter to the Editor

# Ultra-processed foods: a concept in need of revision to avoid targeting healthful and sustainable plant-based foods

We read with interest the invited commentary by Dr Mark Lawrence supporting the utility of the NOVA food classification system<sup>(1)</sup>. However, we take issue with his perspective on our recently published article in which we make two fundamental points<sup>(2)</sup>. First, the common criticisms of ultra-processed foods (UPF) do not apply to soya-based meat and dairy alternatives more so than they do to their animal-based counterparts, meat and cows' milk, despite the former being classified as UPF and the latter as unprocessed/minimally processed foods. Second, NOVA is overly simplistic and does not adequately evaluate the nutritional attributes of meat and dairy alternatives based on soya. Simply put, soya burgers are not Twinkies, even though NOVA similarly classifies these products. Rather than focusing on the crux of our argument, Dr Lawrence notes the association of several authors with the soyafood industry, that is, classic ad hominem reasoning. Dr Lawrence also criticises us for not considering the '... broader public health, environmental and social implications of such innovations (e.g., soy burgers) relative to food processing innovations to promote existing non-UPF nutritious plant-source protein foods such as minimally processed legumes and nuts'. We fully support greater consumption of legumes and nuts and efforts to promote their intake. However, the products in question are designed to replace meat and dairy products not legumes and nuts. Therefore, the critical comparisons are between hamburgers and soya burgers and cows' milk and soyamilk. We therefore stand by our opinion that NOVA does a disservice to the public by suggesting that because soya burgers and soyamilk are NOVA-classified as UPF, they should be avoided. These foods can aid in the transition to and maintenance of plant-based diets.

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Association for the study of Diabetes (EASD), Canadian Cardiovascular Society (CCS) and Obesity Canada/Canadian Association of Bariatric Physicians and Surgeons. He serves or has served as an unpaid scientific advisor for the Food, Nutrition, and Safety Program (FNSP) and the Technical Committee on Carbohydrates of ILSI North America. He is a member of the International Carbohydrate Quality Consortium (ICQC), Executive Board Member of the Diabetes and Nutrition Study Group (DNSG) of the EASD and Director of the Toronto 3D Knowledge Synthesis and Clinical Trials foundation. His wife is an employee of AB InBev. Jessica Kiel is employed by Medifast Inc., a nutrition and weight management company based in Baltimore, Maryland that uses soya protein in many of its products. John W. Erdman, Jr. is a scientific advisory to the Soy Nutrition Institute Global.

Mark Messina is employed by the Soy Nutrition Institute Global, an organisation that receives funding from the United Soybean Board and industry members who are involved in the manufacture and/or sale of soyafoods and/or soyabean components.

All authors participated in the writing of this letter, and read and approved the final submitted version.

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## References

1. Lawrence M (2022) Ultra-processed foods: a fit-for-purpose concept for nutrition policy activities to tackle unhealthy and unsustainable diet. *Br J Nutr*, 1–4 (ahead of print).
2. Messina M, Sievenpiper JL, Williamson P *et al.* (2022) Perspective: soy-based meat and dairy alternatives, despite classification as ultra-processed foods, deliver high-quality nutrition on par with unprocessed or minimally processed animal-based counterparts. *Adv Nutr* **13**, 726–738.