Criticism of the NOVA classification: who are the protagonists?

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Abstract

The NOVA classification is based on the extent and purpose of industrial processing of foods and beverages. It is increasingly used by health authorities as an effective proxy for the healthiness of these products. In particular, the consumption of ultra-processed food and beverage products (UPP) is associated with an increased risk of developing non-communicable diseases. NOVA has also been criticised. In this paper, our hypothesis was that this criticism came from individuals who had relationships with the UPP industry, one way or another. Between August and December 2018, we undertook a series of searches on PubMed, Google and Web of Science, to map the relationships between these individuals and the UPP industry. In total, we identified thirty-two materials criticising the NOVA classification, most of which were non-peer-reviewed. We identified 38 individuals as authors of these documents, among which we found 33 who had relationships with the UPP industry. Among the five individuals for whom we found no relationships with the industry, two were recent graduates and one had no known affiliation. During our analysis, we identified three types of relationships. The first one was when these individuals directly worked with the industry. The second type of relationship was conflicts of interest that individuals declared in their publications, or that they did not declare, but that we found online. The third type of relationship was when the organisations that hosted or presented the criticism of NOVA had relationships with the UPP industry. This study showed that there is currently a need for greater transparency in research and scientific reviews, as many of these relationships were not declared in the materials criticising NOVA.

Introduction

Non-Communicable Diseases (NCD) are the leading cause of mortality, globally (World Health Organization 2014). One of the main risk factors for developing NCD is unhealthy diets, particularly those high in ultra-processed food and beverage products (UPP) (World Health Organization 2014; World Health Organization 2004; Pan American Health Organization 2015).

UPP are one of the groups in the NOVA classification (Group 4), which is based on the extent and purpose of industrial processing of foods and beverages, and was first introduced in 2009 by a Brazilian research group (Monteiro 2009). Group 1 in NOVA is made of unprocessed or minimally processed foods; Group 2 includes "processed culinary ingredients, such as oils, butter, sugar and salt, are substances derived from Group 1 foods or from nature by processes that include pressing, refining, grinding, milling and drying" (Monteiro et al. 2018); Group 3 is made of processed foods, made essentially by adding ingredients from Group 2 to Group 1 foods (Monteiro et al. 2018). UPP, in Group 4, are "formulations made mostly or entirely from substances derived from foods and additives" and their consumption has been linked to "unhealthy dietary nutrient profiles and several diet-related non-communicable diseases" (Monteiro et al. 2018).

This type of classification is increasingly recognised as an effective proxy for the healthiness of these products (Moubarac et al. 2014; Monteiro et al. 2018a; Fiolet et al. 2018). NOVA was included the Dietary Guidelines for the Brazilian Population in 2014 (Ministry of Health 2014) and was later endorsed by the Pan-American Health Organization (Pan American Health Organization 2015). From 2013-2016, numerous articles about NOVA were published in World Nutrition (Monteiro 2011; Monteiro et al. 2012; Monteiro et al. 2016). In 2018, NOVA was the subject of a series of publications in the journal Public Health Nutrition (Public Health Nutrition 2018). This classification is now used in the Uruguayan dietary guidelines (Food and Agriculture Organization of the United Nations 2016) and was cited in a Senate report in Canada (Standing Senate Committee on Social Affairs 2016) and by the French High Council of Public Health in its recommendations for the new French dietary guidelines (Haut Conseil de la Santé Publique 2018).

NOVA has also been criticised by scientists (Gibney et al. 2017). Criticism is essential in science, as it helps stimulate and refine scientific progress. However, our hypothesis is that criticism of the NOVA classification has come mainly from individuals and/or organisations that have had relationships with the UPP industry, one way or another. We define the UPP industry as companies that make most of their profits from UPP. This includes manufacturers, ingredient suppliers, trade associations, etc. The UPP industry has a conflict of interest (COI) in discussions on the impacts of UPP on health. The existence of the UPP industry relies on the sales of these products. Any evidence that demonstrates an association between UPP consumption and an increased risk of NCD, or supports the regulation of the sale of these products, represents a threat to these profits.

In an attempt to mitigate any potential threats to the industry, companies engage in information management, which consists of shaping the evidence base in ways favourable to corporations (Mialon, Swinburn, and Sacks 2015; Mialon, Julia, and Hercberg 2018; Oreskes and Conway 2011; Michaels 2008). This is a well-documented political strategy of the UPP industry and is part of a broader set of strategies that aim to influence public polices and public opinion, also known as "corporate political activity" (CPA) (Mialon, Swinburn, and Sacks 2015; Mialon, Julia, and Hercberg 2018). For this study, our

hypothesis was that the UPP industry might be using such an information management strategy in the case of the NOVA classification. For example, in 2017, Monteiro et al. published a response to a commentary that criticised the classification (Monteiro et al. 2018b; Gibney et al. 2017). They noted that the article contained "factual and conceptual errors" (and proposed a rebuttal to each of these errors) and provided inappropriate references to the literature (citing for example an article on famine while discussing about the association between the consumption of UPP and obesity) (Monteiro et al. 2018b). They also pointed to the lack of transparency about the conflicts of interests between the authors of that article and the UPP industry (Monteiro et al. 2018b).

In this study, our aim was to identify the relationships, if any, between individuals and organisations who have recently criticised the NOVA classification and the UPP industry. We therefore explored the COI that these individuals/organisations had with the UPP industry and how these were reported, as it represents a bias for those who have criticised these types of food and beverage classifications. This article therefore discusses about COI and transparency in research in the context of the NOVA classification. Our intention was not to assess the content of the criticism, which would have been beyond the scope of this article, but to describe these relationships and COI.

Methods

All searches were conducted between August and December 2018.

First, we undertook a search on PubMed, on 1 August 2018, using the keyword "ultra-processed', with no limit to our timeframe or language. Our inclusion criterion was that the publications should criticise the NOVA classification of foods and beverages. From 168 results obtained from this search, only one commentary matched this criterion (Gibney et al. 2017). We then conducted backward searches, where we collected relevant publications, in accordance with our inclusion criterion, from the references section of the identified commentary (Gibney et al. 2017) and then from any new publication that we found. We also conducted forward searches on Scopus to identify other publications that cited the commentary and any other scientific publications identified during data collection. Finally, we contacted NOVA experts to identify additional material. We expanded these searches for all materials that we later identified during this study, through contact with experts.

We then identified information relevant to the relationships between the authors of the materials collected for this study and the UPP industry. We used information provided in the materials themselves, and conducted additional searches online, using Google, with the name of the authors as search terms. We did not limit our analysis to a certain timeframe. We searched for:

1. Declarations of interest sections in scientific publications;
2. The funding acknowledgments sections, in the same publications;
3. The institutions to which the authors were affiliated, as declared in these publications, and any links between these institutions and the UPP industry;
4. Any relationship between the institutions where the materials retrieved were hosted/presented and the UPP industry;
5. Other relationships between the authors and the UPP industry, such as participation in meetings or awards received from the industry.

In addition, we used Web of Science Core Collection to retrieve the publication profile of the individuals identified in the searches described above (Appendix 1 presents our

search parameters). We only conducted these searches for individuals who were affiliated to academic institutions and therefore did not directly work with the UPP industry. This condition removed seven individuals from our search, such as consultants working with the industry, therefore having an *ex ante* COI. We searched for the individuals' name and university affiliation and retrieved the metadata associated with their publications. In particular, we parsed through the COI/funding statements and identified which of the entities mentioned in the statement were associated with the UPP industry.

Using this information, we created two types of networks. First, we connected individuals to the companies operating in the UPP industry, based on reported ties between them. These networks are called two-mode networks, as they connect two different entities: individuals and organisations. We plotted two of these networks: the first using information obtained from the aforementioned Google searches; the second used information we obtained from the funding statements in the publications retrieved from our Web of Science search. The second type of network depicts co-authorship patterns, as it uses the metadata on the publications yielded by our Web of Science search, and creates ties between each pair of authors in each co-authored publication. We display a simple co-authorship network where we highlight the authors of materials criticising NOVA classification. Furthermore, to better understand the structure of the co-authorship network, we ran the Girvan-Newman algorithm to detect research communities in the network. This is a graph-theoretic iterative procedure that calculates edge-betweenness centrality for each edge in the network (that is, it calculates the degree to which that edge acts like a bridge between all other dyads in the network), removes it, recalculates edge betweenness, continually disconnecting the graph until visible clusters start to appear. The procedure maximises modularity, a measure that determines how "good" are the clusters/communities identified by the algorithm, based on comparing the number of ties within clusters vis-a-vis what we would expect by chance. The optimal partition of the network is that which maximises the modularity score.

This study was designed as a preliminary inquiry. Therefore, the list of relationships between individuals/organisations and the UPP industry presented in this manuscript was not meant to be exhaustive, but rather illustrative.

Finally, we want to reflect on the fact that two of us are currently employed by NUPENS (one of us joined the group in 2018), the group that initially developed NOVA, although we were not involved in that work, but other projects in qualitative research. This represents a bias which may influence our exploration of the criticism of NOVA.

Results

In total, we identified 32 materials criticising the NOVA classification (or more broadly, the classification of foods and beverages, based on their extent and purpose of processing). Among these 32 materials, seven were scientific articles. Other materials included commentaries, editorials and other non-peer-reviewed materials in scientific journals, as well as videos and a website, oral presentations at scientific and industry events, as well as a public hearing for a new bill. These documents were published/presented in Belgium, Brazil, Colombia, France, the United Kingdom (UK) and the United States of America (USA).

We identified 38 individuals as authors of these documents. The list of materials retrieved and individuals who authored these documents is presented in Table 1. The key messages from the materials questioning NOVA are presented in Appendix 2.

Table 1: Authors and materials where the classifications of food and beverages based on their extent and purpose of processing was criticised

Nature and details about the document	Authors (alphabetical order for each document)[a,b]
1. *Scientific article*: Contributions of Processed Foods to Dietary Intake in the US from 2003–2008: A Report of the Food and Nutrition Science Solutions Joint Task Force of the Academy of Nutrition and Dietetics, American Society for Nutrition, Institute of Food Technologists, and International Food Information Council. Journal of Nutrition. 2012; 142(11):2065S-72S	Eicher-Miller, Heather*; Fulgoni III, Victor*; Keast, Debra*.
2. *Scientific article*: Processed Food Contributions to Energy and Nutrient Intake Differ among US Children by Race/Ethnicity. Nutrients. 2015; 7(12): 10076–88	Eicher-Miller, Heather*; Fulgoni III, Victor*; Keast, Debra*.
3. *Scientific article*: Energy and Nutrient Intakes from Processed Foods Differ by Sex, Income Status, and Race/Ethnicity of US Adults. Journal of the Academy of Nutrition and Dietetics. 2015; 15(6): 907-18.e6	Eicher-Miller, Heather*; Fulgoni III, Victor*; Keast, Debra*.
4. *Scientific article*: Comparison of Child Lunch Meals in Brazil. Food and Nutrition Sciences. 2016; 7: 262-72	Franciscato Cozzolino, Silvia Maria; *Martins, Carolina;* *Sanchez Oliveira Jensen, Natália.*
5. *Scientific article:* The Myth of Ultra-Processed Foods. EC Nutrition. 2017; 12(3): 148-51	Madi, Luis*; Vialta, Airton*; Rego, Raul Amaral*.
6. *Scientific article*: Les aliments hyper-transformés : un nouveau concept discuté. Médecine des Maladies Métaboliques. 2018; 12(4): 381-6	Lecerf, Jean Michel.
7. *Scientific article*: Ultra-processed foods: definitions and policy issues. Current Developments in Nutrition. 2018; nzy077, https://doi.org/10.1093/cdn/nzy077	Gibney, Michael*.
8. *Letter in a scientific journal*: Nutrient profiling: The good, the bad, and the ultra-processed. Public Health Nutrition. 2009;12(10): 1967–70	Darmon, Nicole.
9. *Scientific statement in a scientific journal*: Processed foods: contributions to nutrition. American Journal of Clinical Nutrition. 2014;99: 1525–42	Dwyer, Johanna*; Fulgoni III, Victor*; King, Janet; Leveille, Gilbert; MacDonald, Ruth; Ordovas, Jose; *Schnakenberg, David;* Weaver, Connie.
10. *Communication in a scientific journal*: Brasil Processed Food 2020: um projeto em defesa da industrialização de alimentos. Brazilian Journal of Food Technology. 2015; 18(4): 337-9	Madi, Luis*; Rego, Raul Amaral*.
11. *Commentary in a scientific journal*: Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. 2017; 106:717–24 (and corrigendum)	Forde, Ciaran; Gibney, Eileen; Gibney, Michael*; *Mullally, Deirdre.*
12. *Review of a scientific article:* aliments « ultra-transformés» et cancer. Cahiers de Nutrition et Diététique. 2018; 53: 74-5	Guy-Grand, Bernard.

13. *Editorial in a scientific journal:* Alimentation, santé publique, étiquetage, où va-t-on ? Cahiers de Nutrition et Diététique. 2018; 53: 123-4	Chardigny, Jean-Michel.
14. *Publication resulting from an event*: Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition. 2012; 3: 536–48	Clemens, Roger*; Dwyer, Johanna* ; Freedman, Marjorie ; Fulgoni III, Victor*; Schmidt, David.
15. *Publication resulting from an event*: Conference on 'Nutrient–nutrient interaction' - Plenary Lecture 1- Food processing: criteria for dietary guidance and public health? Nutrition Society Scottish Section Meeting held at the Royal College of Physicians and Surgeons, Glasgow on 26–27 March 2018. Proceedings of the Nutrition Society. 2018; doi:10.1017/S0029665118002513	Miller Jones, Julie*.
16. *Event*: AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawed? Processed and Ultraprocessed Foods Defined - An Alice in Wonderland Question? 2017	Clemens, Roger*; Miller Jones, Julie*.
17. *Event:* AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawed? Introductory Brain Teaser for the Cereal Chemist - How Do We Categorize Processed and Ultraprocessed Foods? 2017	Clemens, Roger*; Miller Jones, Julie*.
18. *Event*: The Nutrition Society, Spring Conference 2018: Nutrient-nutrient interaction, Plenary Lecture One Avoid processed and ultra-processed foods: Sound bite advice or just a sound bite. 2018	Miller Jones, Julie*.
19. *Event*: Belgian Nutrition Society, Eight annual meeting, May 4th, 2018: Session 1: Keynote 1: Ultra-processed foods in human health: a critical appraisal. 2018	Gibney, Michael*.
20. *Event*: Séance hebdomadaire de l´Académie d´Agriculture de France: Des matières premières agricoles aux aliments : Quel impact des procédés de transformation sur la qualité de l'alimentation ? (6 documents in total). 2018 a. Introduction - Gérard Pascal b. Impacts des opérations et procédés sur les attributs des aliments - Gilles Trystram c. Mieux connaître la transformation industrielle et la diversité de nos aliments pour une alimentation plus saine et plus durable : exemple d'une cartographie multicritère du marché français des pizzas- Isabelle Souchon d. La structure des aliments module leur cinétique de digestion et la biodisponibilité des nutriments - Didier Dupont e. Conclusion - Véronique Braesco	Pascal, Gérard; Trystram, Gilles; Souchon, Isabelle; *Dupont, Didier;* Braesco, Véronique.
21. *Project*: Brasil Processed Food 2020 a. Publication: ITAL. Alimentos industrializados: a importância para a sociedade brasileira . Editores: Rego R. A., Vialta A. and Madi L. 2018. http://alimentosindustrializados.com.br/2/	Madi, Luis*; Vialta, Airton*; Rego, Raul Amaral*.

b. website: http://www.alimentosprocessados.com.br/plataforma.php	
22. *Public hearing*: Comentarios al Proyecto de Ley 07 de 2017 por Jairo Romero, audiencia publica de la comisión séptima del senado de la republica de Colombia, Octubre 26 de 2017. 2017	Romero, Jairo.
23. *Other presentation*: Acerca de los sistemas de clasificación de alimentos y su racionalidad científica, IIº consejo tecnico de IFAN, Santiago de Chile, 27 de marzo, 2018. 2018	Morán, Javier.
24. *Video*: One Size Doesn't Fit All When it Comes To Processed Foods http://bcove.me/gzuw84jj	Eicher-Miller, Heather*.
25. *Video*: Processed Food Makes Our Lives Better http://bcove.me/0nq5lbx2	Decker, Eric.
26. *Video:* Everything is Processed http://bcove.me/p3fyebvk	Floros, John.
27. *Video:* Processed Foods Wonderful For Women http://bcove.me/77r4zm4t	Shelke, Kantha.

[a]The asterisks identify individuals who participated in more than one material
[b]For authors in italics, we found no evidence of a relationship with the UPP industry

From the preliminary searches using the materials retrieved for this study and Google, we found that at least 31 individuals interacted, at some point, with the UPP industry. Ten individuals (one quarter of all authors) appeared on more than one publication. All evidence for data included in Table 1 and in the results section of this manuscript is available as Appendix 3.

During our analysis, we identified three types of relationships. The first one was when individual authors directly worked with the UPP industry. The second type of relationship was the COI that individual authors declared in their publications, or that they did not declare, but that we found online. The third type of relationship was between organisations that hosted or presented criticism of NOVA and the UPP industry. In this manuscript, we will present each of these relationships.

Individuals who worked with the UPP industry

We first identified that, at the time of publication of the materials included in this study, seven individuals (a fifth of all authors) worked with the UPP industry, as detailed in their affiliations or declarations of interests, as shown in Table 2. This represents a COI in the discussion of concern, as described earlier.

Table 2: Individuals who were working, or recently worked, with the UPP industry at the time of publication (in alphabetical order)

Name of individual (alphabetical order)	**Country**	**Industry affiliation**	**Principal activity of the industry actor**
Braesco, Véronique	France	Director of VAB-Nutrition	A consulting company that works for the UPP industry
Fulgoni III, Victor	USA	Nutrition Impact	A business that "helps companies market their food products by

			promising drug-like benefits" (Source Watch 2018)
Keast, Debra	USA	President of Food & Nutrition Database Research & sub-contracted by the above-mentioned Nutrition Impact	For Nutrition Impact, Debra Keast conducted research funded by a UPP industry actor
Leveille, Gilbert	USA	UPP industry consultant	Unknown
Romero, Jairo	Colombia	President of the Asociación Latinoamericana y del Caribe de Ciencia y Technologia de Alimentos (ALACCTA)	A regional association of food technologists, including industry actors (ALACCTA 2018)
Schmidt, David	USA	President and CEO of the International Food Information Council (IFIC)	IFIC is supported by several UPP industry actors, including: Abbott Nutrition, the Coca-Cola Company, Danone North America, Ferrero USA, General Mills, Inc., Mondelēz International, PepsiCo, Red Bull North America, Subway, Yum! Brands (International Food Information Council 2018)
Shelke, Kantha	USA	Founder and principal of Corvus Blue	A "food science and consumer packaged goods development firm" (Shelke 2018)

Most of these individuals were based in the USA, reflecting the location of publication of most of the materials retrieved. None of these authors directly worked for the UPP industry. Instead, they worked for trade associations, did consultancies for the UPP industry, etc. These indirect relationships mean that it might be more complicated to identify these industry affiliations in the scientific literature.

Conflicts of interest declared and not declared

In addition to these individuals who worked with the UPP industry, we identified many conflicts of interests (COI) for other individuals. Some of these conflicts were declared, but many other links with the UPP industry were not, and only identified through additional searches.

First, our Web of Science search yielded 1,734 publications authored by 26 of the 38 individuals identified above. We removed from our searches the seven individuals who worked directly with the food industry and had no known academic affiliation; a further four individuals did not feature in the results of this search because either their publications were not indexed on Web of Science or, when indexed, the metadata did not include their academic affiliations, which prevented us from ensuring that we had identified the right individual. Finally, there was one person with no known affiliation, D. Schnakenberg. In that case, we could not run a search for him, as there could have been several people with the same name on Web of Science and we had no criteria to identify the right one.

These Web of Science searches confirmed our findings from our Google searches, and provided us with a deeper insight into the relationships between individuals and the UPP industry. They revealed that two more individuals had relationships with this industry (R. MacDonald and I. Souchon). This means that, in total, our analyses revealed that 33 of the 38 individuals who have criticised NOVA had relationships with the UPP industry. Among the five individuals (in italics in Table 1) for which we found no evidence of a relationship with the UPP industry, two were recent graduates in nutrition and we could not find information online for another individual, as stated above.

Below, we analyse the resulting funding patterns and co-authorship networks from our Web of Science searches. Figure 1 presents all components of the network of relationships between individuals who have criticised NOVA and the UPP industry.

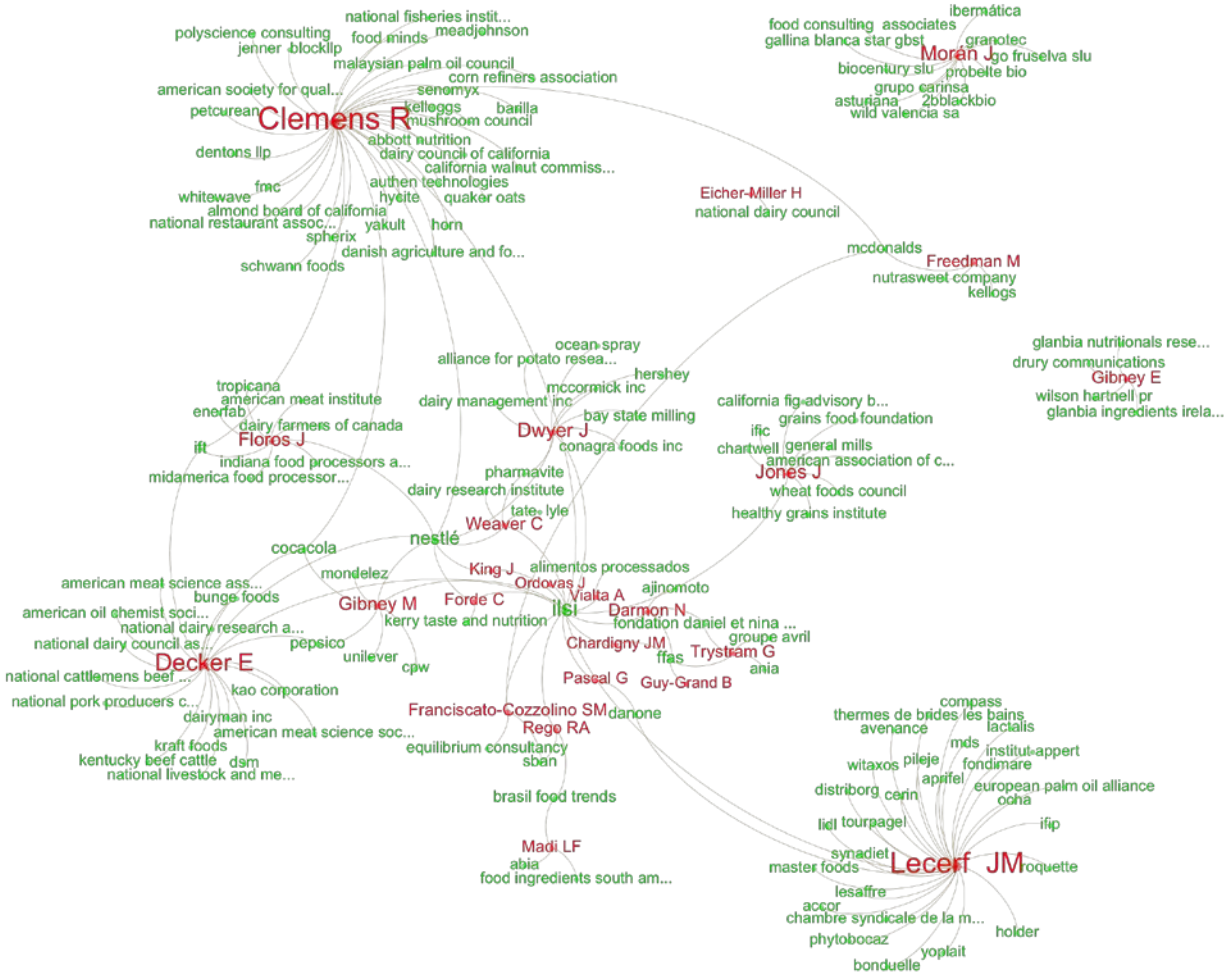

Figure 1. Two-mode network depicting ties between individuals and companies in the UPP industry.
Nodes are sized by degree centrality (total number of connections). Individuals' names are in red and UPP industry affiliated actors are in green. Layout algorithm optimised to decrease label and node overlap.

The most central researchers in this network are JM. Lecerf, E. Decker and R. Clemens, all of whom have ties to the most central UPP industry organisation in this network: the International Life Science Institute (ILSI). In fact, at least half (20/38) of the individuals criticising NOVA had relationships, at some point, with ILSI, a scientific organisation funded by the food industry (International Life Science Institute 2016). ILSI was once described as a "corporate lobby group" and its activities were considered to be in conflict with public health interests (Corporate Europe Observatory 2012). There is evidence that ILSI had strong ties with the tobacco industry and it was criticised for its lobbying against tobacco control efforts (World Health Organization 2001). In 2016, the Guardian reported that ILSI was also funded by the pesticides industry (Nelsen 2016). ILSI was "founded in Washington in 1978 by the Heinz Foundation, Coca-Cola, Pepsi-Cola, General Foods, Kraft (owned by Philip Morris) and Procter & Gamble" (Boseley 2003). The most recent data available show that, in 2015, ILSI was supported by dozens of transnational companies, including Cargill, Coca Cola, Danone, General Mills, Mc Donald's, Mondelez, PepsiCo, and Unilever (International Life Science Institute 2016). Some of the individuals who criticised NOVA published reports or presented their work at ILSI events, but others had more substantial roles in the organisation. C. Weaver is the chair of the ILSI board of trustees and chair of the ILSI board publications committee (International Life Science Institute 2018a). At ILSI Europe, M. Gibney is a member of the board of directors and G. Pascal is a member of the nominations committee (International Life Science Institute 2018b).

Another interesting feature depicted in the network is the fact that the two most central actors, JM. Lecerf and R. Clemens, only share one connection in common (ILSI), but are both extremely well connected to corporations in their respective countries. In France, JM. Lecerf works at the Institut Pasteur de Lille, an institution that has had ties with such actors in the UPP industry as Coca Cola and Danone (Mialon and Mialon 2017; Mialon and Mialon 2018). In the USA, R. Clemens was a scientific Advisor for Nestlé USA for more than two decades (PolyScience consulting 2018). He provided consulting services or served on the advisory council of, among others, the Corn Refiners Association, the Dairy Council of California, McDonalds, the National Restaurant Association and Quaker Oats (Clemens et al. 2016).

In order to gauge the extent to which these individuals were embedded in prolific research communities, we sought to map their co-authorship networks from the searches we conducted in Web of Science, using the individual's name and their current academic affiliation. In total, these researchers were involved in 1,734 publications between 1998 and 2018. In Figures 2 and 3, we depict their co-authorship network, that is, we represent graphically the co-authorship links between any of the listed authors in the 1,734 publications we retrieved from Web of Science (that is, publications in which at least one of the 26 researchers from our sample was involved in). In Figure 2, the blue names represent the authors in our sample criticising NOVA and the nodes in red represent their co-authors. The edges are weighted by the number of published papers between any pair of co-authors (thicker lines indicate a higher number of co-authored papers). Overall, the researchers seemed scattered between different research groups, with one of them very close to the core of the network where a large research community proliferates. Apart from the core, the subgroups in the network with higher density (higher concentration of ties) are actually formed around where the researchers of interest are located.

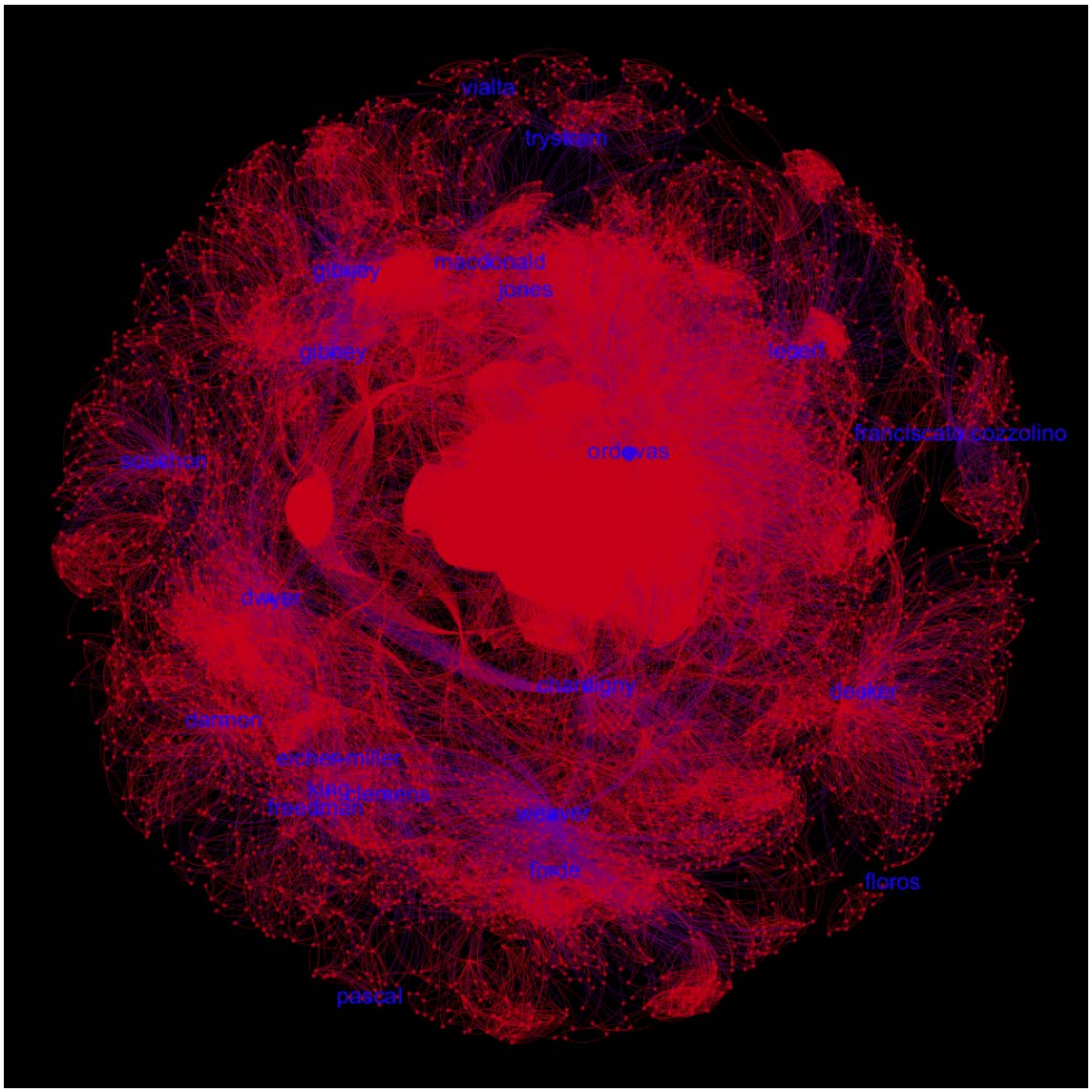

Figure 2. One-mode co-authorship network.

Nodes taking the form of circles represent authors, and are linked by edges when they co-author a paper. The edges are weighted by the number of publications co-authored by any pair of authors (the thicker the edges, the higher the number of publications). Blue names identify the 26 authors in our sample, red circles identify their co-authors.

In Figure 3, we illustrate how the network is organised in different subgroups by colouring the different partitions of the graph, following an algorithm that iteratively disconnects edges from the network based on edge betweenness.

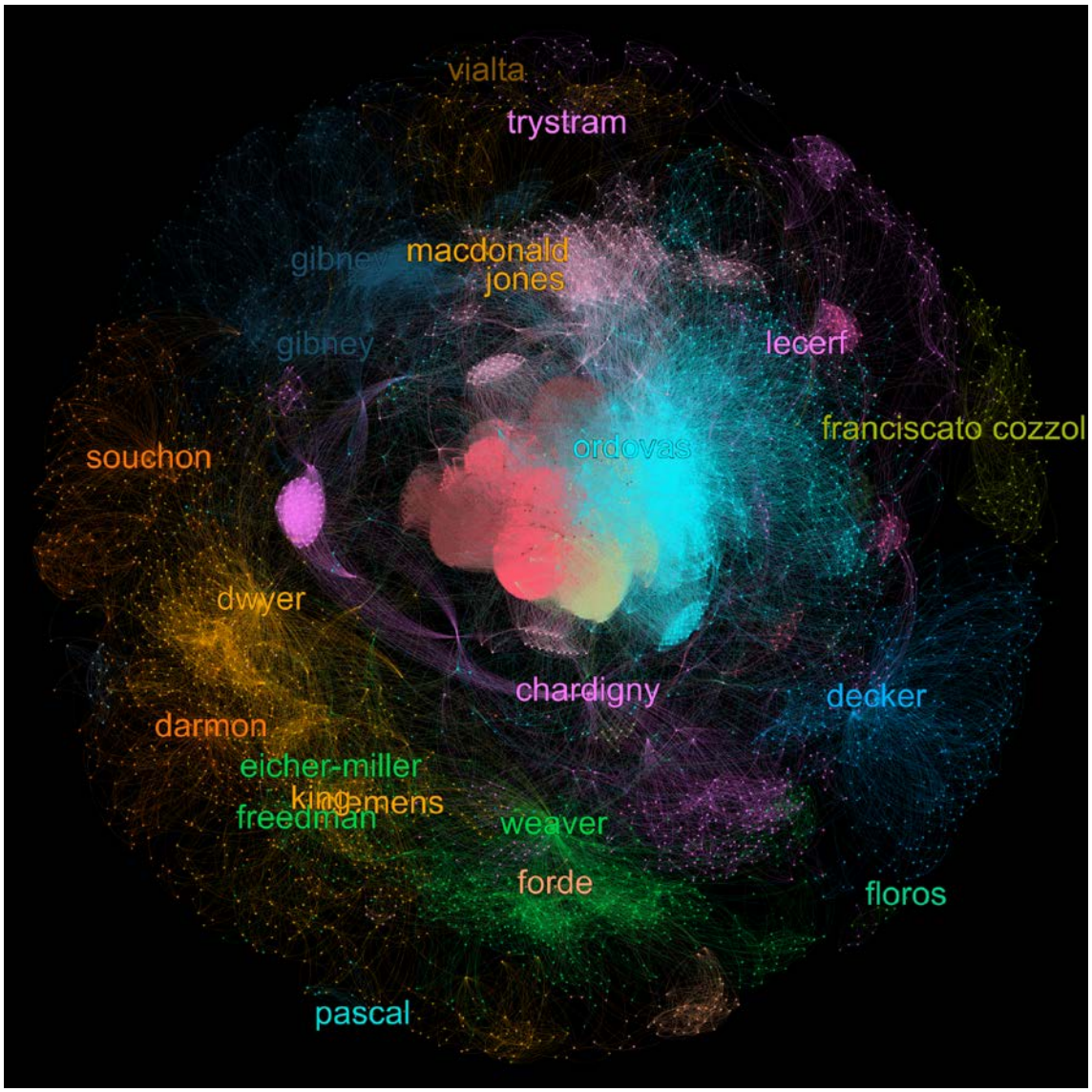

Figure 3. Co-authorship network, where nodes are authors tied to each other when sharing authorship in the same scientific publication.

The network is divided in coloured factions/clusters, which represent different research communities in the network. The authors in our sample have label tags with their surname and are coloured according to the research community they belong to.

The subgroups coloured in Figure 3 can have different bases: some are organised geographically (language might be influential as well), others are organised around research topics and others around academic institutions. We labelled and coloured the nodes corresponding to the researchers of interest in our sample, according to which community in the network they belong to.

Lastly, we attempted to recreate Figure 1 using only the funding acknowledgement/COI statement statements in the 1,734 publications we retrieved from the Web of Science search. We manually inspected each funding acknowledgement/COI statement and identified companies who worked in the food and beverage industry at large, irrespective of whether the majority of their profits were drawn from UPP. Comparing Figure 1 with Figure 4, we quickly realised that the funding statements in published research

underreported the ties between researchers and the UPP industry. The reasons for this are unclear. On the one hand, researchers may deliberately fail to report their relationships with industry. On the other, some journals' guidelines on what constitute a COI may not warrant the disclosure of such ties. Nonetheless, these ties to industry are more often than not invisible to the readers of said research, and exercises such as this one bring clarity to a complex web of relationships that can have a detrimental impact on how science advances in public health nutrition.

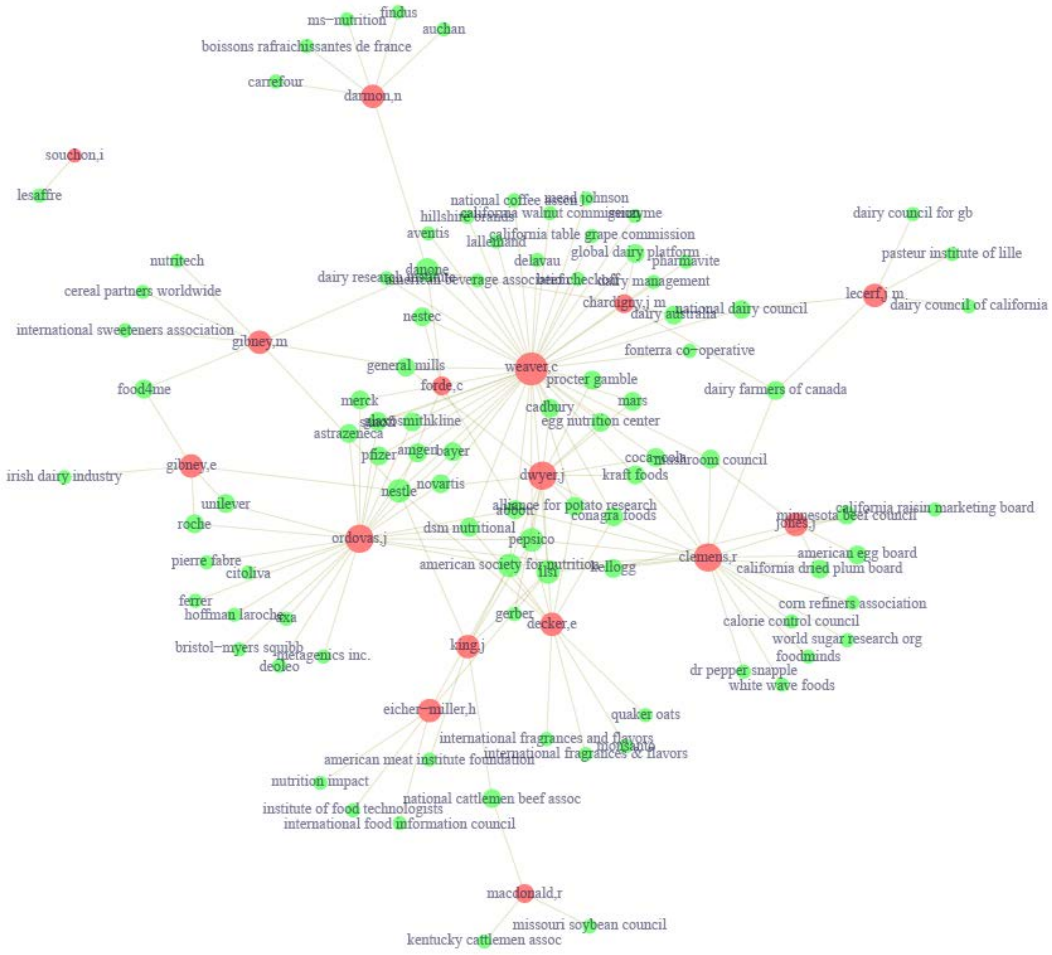

Figure 4. Two-mode network depicting ties between individuals and actors in the UPP industry, as per the funding statements in the 1,731 publications retrieved from our Web of Science search.

Nodes are sized by degree centrality (total number of connections). Red circles represent individuals. Green circles represent industry actors. Layout algorithm optimised to decrease label and node overlap.

This brief network analysis of researchers' ties to industry brought us two important insights: (1) the researchers we studied are very well connected, heavily published, and have the ability to influence many scientific forums; (2) many of their ties to UPP industry are underreported in their published work.

Platforms where NOVA was criticised and relationships with the UPP industry

Finally, we identified that many organisations who hosted/published a criticism of the NOVA classification also had relationships with the UPP industry.

We found one document that was published in the Journal of the Academy of Nutrition and Dietetics (AND). In 2013, Simon, a lawyer, showed that the AND was sponsored by industry actors such as General Mills and Kellogg and the association presented a list of approved continuing education providers in which Coca-Cola, Kraft Foods, Nestlé, and PepsiCo were included (Simon 2013). The UPP industry (e.g.; the Corn Refiners Association, Nestlé) was also involved in the annual event of the association, presenting their products at the exhibition and sponsoring scientific sessions (Simon 2013). Many of the speakers at these events had ties with the industry, not necessarily disclosed to the participants (Simon 2013). It was suggested that these relationships between the AND and the industry might have discouraged the association from supporting effective (but controversial for the industry) public health nutrition policies (Simon 2013).

Several documents were published in the journals of the American Society for Nutrition (ASN) (and one symposium questioning the role of processing was hosted by the ASN). Here again, in 2015, Simon, described the relationships between the ASN and the UPP industry (Simon 2015). Simon listed the partners of the ASN, many of which were from the UPP industry, and explained that industry actors such as PepsiCo sponsored sessions at the ASN annual event and other meetings (Simon 2015). In this report, Simon discussed one ASN publication discrediting the NOVA classification, and how this might be linked to the fact that the ASN had strong ties with the UPP industry (Simon 2015). Three years after the publication of this report, the ASN is still partnering with many major actors in the UPP industry: the General Mills Bell Institute of Health and Nutrition, the Kellogg Company, Mars Inc., Nestle Nutrition, PepsiCo, the Coca Cola Company, the Dannon Company (US subsidiary of Danone), the Sugar Association, and Unilever (American Society for Nutrition 2018a). In addition, the society provides industry-sponsored scholarships to students in nutrition (American Society for Nutrition 2018b). One ASN symposium was sponsored by the American-based Institute of Food Technologists (IFT) and the International Food Information Council (IFIC). IFIC has been introduced earlier in this manuscript, in Table 1. The outcomes of this ASN symposium were published in an ASN journal, and one of the authors of this document was a former member of the IFT Board of Directors. In addition to this symposium, the IFT also published a series of videos included in the materials we collected for this study questioning the NOVA classification. The IFT has had numerous relationships with the UPP industry. As of August 2018, its current president was employed by DuPont Nutrition and Health, its treasurer was "a seasoned industry veteran with more than 21 years of food and beverage experience" (Institute of Food Technologists 2018), and many of its board members worked with this industry. From our searches online, we concluded that the IFT was not transparent enough about its industry partners on its websites.

In the United States of America again, two documents were presented as part of a cereal industry-sponsored event called "Cereals 17", organised by AACC International (AACC

International 2018a). AACC is an association of "scientists and food industry professionals" (AACC International 2018b).

In France, an event was organised at the French Academy of Agriculture to criticise the NOVA classification. From our searches, the only relationship that we could establish between the Academy and the industry was through the declaration, on the website of the academy: "The French Academy of Agriculture is, notably, in working relations with (…) most professional organisations in the agriculture and food sectors, as well as with their technical centres" (our translation) (Académie d'Agriculture de France 2018a).

In France again, a review and an editorial were published in 2018 that discredited the NOVA classification. We previously introduced the conflicts of interest of the researchers who wrote these documents. In addition, the scientific journal "les Cahiers de Nutrition et Diététique", in which these documents were published, also had links with the food industry. We found that three of its editorial board members directly worked for the food industry: one, cited earlier in this manuscript, worked for VAB-Nutrition, and another for Linkup (LinkUp Factory 2018), which are two consulting firms for the food industry, and the third person worked for Nestlé (Cahiers de Nutrition et de Diététique 2018).

In Belgium, the Belgian Nutrition Society hosted a session at its annual conference, where M. Gibney presented his rebuttal of the NOVA classification (Belgian Nutrition Society 2018a). The conference was sponsored by actors in the UPP industry such as Yakult and the Belgian Fédération de l´Industrie Alimentaire (FEVIA) (Food Industry Federation) (Belgian Nutrition Society 2018b). It is important to note that counter-arguments were also presented during the session, with authors of NOVA publications sharing their own research findings (Belgian Nutrition Society 2018a).

In Chile, a presentation criticising the NOVA classification was given at IFAN, a "public private programme, created from an alliance between the food industry and academia" (IFAN 2018). IFAN is a consortium of partners, including actors in the UPP industry such as the Consorcio de Cereales Funcionales (CCF) (Functional Cereal Consortium) and Granotec (Red agricola 2017).

Finally, in Brazil, three employees of the Instituto de Tecnologia de Alimentos (ITAL) (Institute of Food Technology) produced materials questioning the NOVA classification. ITAL is a public organisation from the State of São Paulo, closely linked to the UPP industry, as stated on its website: "For companies, ITAL offers consulting, training and analysis services, with guarantee of exemption and competence. According to its strategic plan, ITAL has oriented its activities towards the generation of innovation projects, investing in the study of trends in the food sector, establishing partnerships and forming collaborative networks, involving the private sector and other stakeholders of the food sector" (Instituto de Tecnologia de Alimentos 2018a). ITAL's project "Brazil Processed Food 2020" was conducted in partnership with the Associação Brasileira das Indústrias da Alimentação (ABIA) (Brazilian Association of Food Industries), one of the largest food industry trade association in the country (Instituto de Tecnologia de Alimentos 2015). A long list of other trade associations were also involved in the project (Instituto de Tecnologia de Alimentos 2015). ITAL's website called "Processed Foods" was created under this project, and its technical committee includes members from the UPP industry, such as ABIA, IFIC (mentioned above) and ILSI Brazil (Instituto de Tecnologia de Alimentos 2018b). This website questioned the NOVA classification.

We identified four journals in which a criticism of NOVA was published and that had no relationship with the UPP industry, to our knowledge: "Public Health Nutrition", "Medecine des maladies metaboliques", "Food and Nutrition Sciences", and "Nutrients".

The International Committee of Medical Journal Editors (ICMJE) explained that "a growing number of entities are advertising themselves as "scholarly medical journals" yet do not function as such. These journals ("predatory" or "pseudo-journals") accept and publish almost all submissions and charge article processing (or publication) fees, often informing authors about this after a paper's acceptance for publication. They often claim to perform peer review but do not and may purposefully use names similar to well established journals" (International Committee of Medical Journal Editors 2018). One of the article we identified for our study was published in such a predatory journal, "EC Nutrition" ("Beall's List of Predatory Journals and Publishers - Publishers" 2018).

Discussion

This study examined the relationships between the individuals/organisations that criticised the NOVA classification and the UPP industry. Our analysis showed that there is a lack of transparency and a potential bias from the individuals and organisations that have criticised these types of food and beverage classifications. 33 individuals (of the 38 that we have identified) had relationships with the UPP industry. Seven individuals who criticised NOVA directly worked with the UPP industry. Some others had either declared or hidden COI with this industry. It is concerning that a thorough review of the publication record of these individuals does not paint a complete picture of what their ties to industry are and how these can materialise in damaging conflicts of interest.

Moreover, some organisations that hosted or presented criticism of NOVA, such as the Academy of Nutrition and Dietetics (AND) in the USA, the Instituto de Tecnologia de Alimentos (ITAL) in Brazil, or the scientific journal "les Cahiers de Nutrition et Diététique" in France, also had relationships with the UPP industry.

Among the 32 materials that we found, there were a limited number of peer-reviewed scientific articles (7/32). However, scientific journals seemed to be used as a credible platform for disseminating this criticism, through letters, commentaries, report from meetings, etc. Other media such as videos and a website were also used. Each had a specific audience (e.g., scientists and the public).

There is a need for further investigations of the relationships between the employers of individuals who worked in academia and the UPP industry.

Our study has a number of limitations: it was not meant to be a systematic exercise, and was not exhaustive but rather presented the relationships between individuals/organisations that criticised NOVA and the UPP industry. Our intention was neither to assess the content of the criticism, nor to refute it. This might be the subject of further analyses. In addition, we did not limit our searches to a certain date in the past, and some might argue that there is a period after which a COI has no capacity to influence an individual any more. This also means that some individuals might only have declared their relationships with the UPP industry for the most recent years and not for their entire career. In the future, more searches could be conducted for all actors, those who have praised and those who have criticised this classification.

In conclusion, there are many relationships between individuals who criticised NOVA and the UPP industry, many of which are probably unknown to the public. This creates a COI and risks influencing the decisions of public health nutrition professionals and policy makers in ways favourable to the UPP industry and harmful to public health. In addition, this study shows that there is a need for greater transparency in research. Many conflicts

of interest that we found in this study were not declared. This could have a detrimental impact on the how science advances in public health nutrition.

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Appendix 1

Web of Science Core Collection Advance Search Parameters

AU= (Gibney, Eileen OR Gibney, Michael OR Madi, Luis Fernando OR Rego, Raul Amaral OR Vialta, Airton OR Forde, Ciaran OR Darmon, Nicole OR Jones, Julie OR Morán, Javier OR Pascal, Gerard OR Trystram, Gilles OR Franciscato Cozzolino, Silvia Maria OR Lecerf, Jean Michel OR King, Janet OR Ordovas, Jose OR Weaver, Connie OR Dwyer, Johanna OR Eicher-Miller, Heather OR Freedman, Marjorie OR Clemens, Roger OR Decker, Eric OR Floros, John OR Chardigny, Jean-Michel OR Guy-Grand, Bernard OR Dupont, Didier OR MacDonald, Ruth OR Martins, Carolina OR Mullally, Deirdre OR Oliveira, Natalia Sanchez OR Souchon, Isabelle

)

AND

OG = (Agroparistech OR University College Dublin OR University Of California Davis OR National Institutes Of Health Nih Usa OR National University Of Singapore OR University Of Massachusetts System OR Purdue University OR Purdue University System OR University Of Southern California OR St Catherine Univ OR Tufts University OR Institut National De La Recherche Agronomique Inra OR Universidade De Sao Paulo OR Institut Pasteur Lille Or Institut National De La Recherche Agronomique INRA Or Iowa State University Or Universidade De Sao Paulo Or University College Dublin

)

Appendix 2: Key messages questioning NOVA from the materials included in this study

Comments in italics were added by the authors. Bibliographic references in the quotations were removed from the original text, for better readability.

Nature and details about the document	Key messages questioning NOVA
1. *Scientific article*: Contributions of Processed Foods to Dietary Intake in the US from 2003–2008: A Report of the Food and Nutrition Science Solutions Joint Task Force of the Academy of Nutrition and Dietetics, American Society for Nutrition, Institute of Food Technologists, and International Food Information Council. Journal of Nutrition. 2012; 142(11):2065S-72S	"All processing levels contributed to nutrient intakes, and none of the levels contributed solely to nutrients to be encouraged or solely to food components to be reduced. The processing level was a minor determinant of individual foods' nutrient contribution to the diet and, therefore, should not be a primary factor when selecting a balanced diet." (Eicher-Miller, Fulgoni, and Keast 2012)
2. *Scientific article*: Processed Food Contributions to Energy and Nutrient Intake Differ among US Children by Race/Ethnicity. Nutrients. 2015; 7(12): 10076–88	"Clinicians and policy should primarily advise consideration of the energy and nutrient composition of foods, rather than the processing level, when selecting a healthy diet for children.." (Eicher-Miller, Fulgoni, and Keast 2015b)
3. *Scientific article*: Energy and Nutrient Intakes from Processed Foods Differ by Sex, Income Status, and Race/Ethnicity of US Adults. Journal of the Academy of Nutrition and Dietetics. 2015; 15(6): 907-18.e6	"Recommendations for a diet adhering to the DGA should continue to focus on the energy and nutrient content, frequency of consumption, and serving size of individual foods rather than the level of processing." (Eicher-Miller, Fulgoni, and Keast 2015a)
4. *Scientific article*: Comparison of Child Lunch Meals in Brazil. Food and Nutrition Sciences. 2016; 7: 262-72	"Recently, revised Dietary Guidelines in Brazil included a recommendation to "avoid fast food". This project compared meals from home and away from home.… The nutrition quality of lunch in fast food restaurants is similar to a typical Brazilian meal. The restaurant meals could fit into a balanced diet from time to time." *N.B: the Dietary Guidelines are based on NOVA* (Martins, Sanchez Oliveira Jensen, and Franciscato Cozzolino 2016)
5. *Scientific article:* The Myth of Ultra-Processed Foods. EC Nutrition. 2017; 12(3): 148-51	"There is no practical sense in trying to classify foods based on the degree of processing, since the same food can be processed in different ways, depending on the final product intended to achieve. … In general, the wide variety of food products within a single category makes it impossible to use this food-classification system to guide the choice of an individual at the time of purchase, in front of a shelf full of options which vary in the number and types of ingredients, presence of

	additives and also in relation to the contents of calories, fats, sugar, salt and nutrients. As observed by Gibney., et al. [*material 11 in this Appendix*], a food-classification system based on degree of processing instead of nutritional aspects cannot offer specificity at the individual level of nutrition and becomes very comprehensive and rigid to be compared to the existing classification systems. As a result, it has little practical value and constitutes a linguistic system of classification.…Finally, proponents of this system need to present consistent evidences showing that the consumption of processed foods may actually pose some risk to the consumer health. They also need to sharply counteract researches that bring evidences to the contrary, such as Weaver., et al. [*material 9 in this Appendix*], from which the American Society for Nutrition found that "processed foods are nutritionally important to the American diet," and that a good diet depends on the selection of foods of nutritional value regardless of whether they are processed or not." (Rego, Vialta, and Madi 2017)
6. *Scientific article*: Les aliments hyper-transformés : un nouveau concept discuté. Médecine des Maladies Métaboliques. 2018; 12(4): 381-6	"Some epidemiological studies have shown a relationship between the ultra-processed foods consumption and a higher cardio-metabolic and cancer risk. Indeed, their consumption is increasing in the actual diet over the world. However, [*the ultra-processed foods*] concept is questionable since it considers that all manufactured foods are bad. Moreover, the ultra-processed foods group is quite heterogeneous. But it may load people to use more and more unprocessed foods and to cook themselves. All these issues are discussed." (Lecerf 2018)
7. *Scientific article*: Ultra-processed foods: definitions and policy issues. Current Developments in Nutrition. 2018; nzy077, https://doi.org/10.1093/cdn/nzy077	"there is little consistency either in the definition of ultra-processed foods or examples of foods within this category. The public health nutrition advice of NOVA is that ultra-processed foods should be avoided to achieve improvements in nutrient intakes with an emphasis on fat, sugar and salt. The present paper shows that the published data for the US, UK, France, Brazil and Canada, all show that across quintiles of intake of ultra-processed foods, nutritionally meaningful changes are seen for sugars and fibre but not so for total fat, saturated fat and sodium. Moreover, two national surveys in the UK and France fail to show any link between Body mass index and consumption of ultra-processed foods. The paper concludes that constructive scholarly debate on many issues that would be affected by a policy to avoid ultra-processed foods, needs to be facilitated." (Gibney 2018)
8. *Letter in a scientific journal*: Nutrient profiling: The good, the bad, and the ultra-processed. Public Health Nutrition. 2009;12(10): 1967–70	"The evidence for a link between nutrition and health has prompted many countries to design food-based dietary guidelines. However, the implementation of these recommendations may be impaired by their imprecision. Indeed, they are based on wide food categories, not on individual foods in the form actually bought by consumers. In that sense, those guidelines are wrongly called 'food'-based dietary guidelines, because they do not provide recommendations on

	individual foods, but on categories of foods, the definition of which is very imprecise. As a result, clear recommendations on foods composed of more than one food category, such as mixed dishes and snacks, are lacking. Moreover, food category-based recommendations are useless when it comes to choosing between two foods that have the same selling name but different ingredient and nutrient compositions and different prices. However, stigmatising a category as 'ultra-processed foods' will not help to overcome these limitations, because the classification Dr Monteiro proposes also lacks precision, and is therefore unlikely to be useful and operational." (Darmon 2009)
9. *Scientific statement in a scientific journal*: Processed foods: contributions to nutrition. American Journal of Clinical Nutrition. 2014;99: 1525–42	"Both fresh and processed foods make up vital parts of the food supply. Processed food contributes to both food security (ensuring that sufficient food is available) and nutrition security (ensuring that food quality meets human nutrient needs). This ASN scientific statement focuses on one aspect of processed foods: their nutritional impacts. Specifically, this scientific statement 1) provides an introduction to how processed foods contribute to the health of populations, 2) analyzes the contribution of processed foods to "nutrients to encourage" and "constituents to limit" in the American diet as recommended by the Dietary Guidelines for Americans, 3) identifies the responsibilities of various stakeholders in improving the American diet, and 4) reviews emerging technologies and the research needed for a better understanding of the role of processed foods in a healthy diet.… Diets are more likely to meet food guidance recommendations if nutrient-dense foods, either processed or not, are selected." (Weaver et al. 2014)
10. *Communication in a scientific journal*: Brasil Processed Food 2020: um projeto em defesa da industrialização de alimentos. Brazilian Journal of Food Technology. 2015; 18(4): 337-9	"In Brazil, the anti-industry ideology can be recognised in several parts of the recent publications of the Ministry of Health, such as the "Dietary Guidelines for the Brazilian Population" and the "Regional Foods of Brazil", showing that this activism reached the governmental spheres. In summary, radical movements try to influence society to reject processed foods, labeled arbitrarily as unhealthy, by means of criteria that are not supported from the perspective of Food Science and Technology." [*Translated from Portuguese by first author*] (Madi and Rego 2015)
11. *Commentary in a scientific journal*: Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. 2017; 106:717–24 (and corrigendum)	"This commentary challenges many of the basic arguments of using the NOVA food classification system to examine the link between food and health. We believe that there is no evidence to uphold the view that UPFDs [ultra-processed foods and drinks] give rise to hyperpalatable foods associated with a quasi-addictive effect and that the prevailing European Union and US data fail to uphold the assertion that UPFDs, which dominate

	energy intake, give rise to dietary patterns that are low in micronutrients. With regard to the use of the NOVA food classification in the development of food-based dietary guidelines, we show that the very broad definition of UPFDs makes this impossible. Finally, the available evidence does not support the view that the globalization of food is the driver of increased intakes of UPFDs in low- to middle-income countries but rather that this is driven by small indigenous companies. On balance, therefore, there seems to be little advantage from the use of the NOVA classification compared with the current epidemiologic approach, which relies on the linkage of nutrient intakes to chronic disease with subsequent identification of foods that merit consideration in public health nutrition strategies." (Gibney et al. 2017)
12. *Review of a scientific article:* aliments «ultra-transformés» et cancer. Cahiers de Nutrition et Diététique. 2018; 53: 74-5	"the NOVA classification includes in the "ultra-processed" group a heterogeneous patchwork of foods… the boundaries between "processed" and "ultra-processed" being sometimes subjective.… we cannot draw any specific application from this work (which should be replicated over a longer period) that would useful for consumers or decision-makers, however, we expose all industrial foods to a condemnation by the public, which would certainly be abusive (some "ultra-processed" also belonging to the middle classes of Nutri-Score) [*Nutri-Score is a color-coded system providing information about the nutritional quality of food products, on a 5-scale color scheme, from A/Green to E/Red*]." [*Translated from French by the first author*] (Guy-Grand 2018)
13. *Editorial in a scientific journal:* Alimentation, santé publique, étiquetage, où va-t-on? Cahiers de Nutrition et Diététique. 2018; 53: 123-4	"This "categorization" forgets the very wide variability within the same group of products.... Thus, while intending to help the consumer in his food choices with information and labels, it only adds to the confusion.... the processing of raw materials is often a necessity!!! - unless we become all raw food eaters? People in food processing must therefore have an important position in the agricultural and food systems." [*Translated from French by the first author*] (Chardigny 2018)
14. *Publication resulting from an event*: Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition. 2012; 3: 536–48	"Ensuring that nutrient needs are met primarily through foods will also require motivating consumers to eat more healthfully. This task requires addressing confusion, misinformation, and negative perceptions of processed foods. Many consumers do not realize that almost all foods currently consumed are processed and that food processing has historically provided and will continue to provide a safe and abundant food supply that

	provides significant public health benefit. The mischaracterization of processed foods and food technology as unnatural, unsafe, and/or nutritionally inappropriate by some health professionals, advocacy organizations, and the media further makes the task of motivating consumers to eat more healthfully challenging.… Consumers may object to processing and novel ingredients based on aesthetic reasons or both aesthetic and nonscientific reasons. [*Then described contribution of processed fruits and vegetables to nutrient intake and other positive aspects of food processing*]" (Dwyer et al. 2012)
15. *Publication resulting from an event*: Conference on 'Nutrient–nutrient interaction' - Plenary Lecture 1- Food processing: criteria for dietary guidance and public health? Nutrition Society Scottish Section Meeting held at the Royal College of Physicians and Surgeons, Glasgow on 26–27 March 2018. Proceedings of the Nutrition Society. 2018; doi:10.1017/S0029665118002513	"NOVA categories are drawn using non-traditional views of food processing with additional criteria including a number of ingredients, added sugars, and additives. Comparison of NOVA's definition and categorisation of PF with codified and published ones shows limited congruence with respect to either definition or food placement into categories. While NOVA studies associate PF with decreased nutrient density, other classifications find nutrient-dense foods at all levels of processing. Analyses of food intake data using NOVA show UPF provide much added sugars. Since added sugars are one criterion for designation as UPF, such a proof demonstrates a tautology. Avoidance of foods deemed as UPF, such as wholegrain/enriched bread and cereals or flavoured milk, may not address obesity but could decrease intakes of folate, calcium and dietary fibre. Consumer understanding and implementation of NOVA have not been tested. Neither have outcomes been compared with vetted patterns, such as Dietary Approaches to Stop Hypertension, which base food selection on food groups and nutrient contribution. NOVA fails to demonstrate the criteria required for dietary guidance: understandability, affordability, workability and practicality. Consumers' confusion about definitions and food categorisations, inadequate cooking and meal planning skills and scarcity of resources (time, money), may impede adoption and success of NOVA. Research documenting that NOVA can be implemented by consumers and has nutrition and health outcomes equal to vetted patterns is needed." (Jones 2018)
16. *Event*: AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawed? Processed and	"Most of the popular definitions associated with some form of food processing do not have any regulatory sanction, and the popular criticism of processed foods and use of a processed food categorization, which has its own criteria (e.g., subjectively defined by degree of

Ultraprocessed Foods Defined - An Alice in Wonderland Question? 2017	processing plus other criteria), as a guide to selecting a healthful diet have become contemporary topics of debate. The definitions and ideas surrounding processed food categorizations will be discussed during an interactive session at the Cereals 17 meeting. This first of two articles provides various definitions of processed food and shows their extreme incongruence." (Jones and Clemens 2017a)
17. Event: AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawed? Introductory Brain Teaser for the Cereal Chemist -How Do We Categorize Processed and Ultraprocessed Foods? 2017	"The authors argue that the [*NOVA*] categorization scheme raises several concerns. Because processing complexity may or may not characterize a specific food in any of the categories and there are many definitions of processing, this could create confusion for consumers and professionals alike. Further, the lack of category standardization is problematic - even in various research reports testing the NOVA classification, where some researchers use three groups and others four. Additionally, there is inconsistent placement of certain foods in different groups." (Jones and Clemens 2017b)
18. *Event*: The Nutrition Society, Spring Conference 2018: Nutrient-nutrient interaction, Plenary Lecture One Avoid processed and ultra-processed foods: Sound bite advice or just a sound bite. 2018	*No detail on the website of the society* ("Programme | The Nutrition Society - Spring Conference 2018: Nutrient-nutrient Interaction" 2018)
19. *Event*: Belgian Nutrition Society, Eight annual meeting, May 4th, 2018: Session 1: Keynote 1: Ultra-processed foods in human health: a critical appraisal. 2018	*No detail on the website of the society* (Belgian Nutrition Society 2018a) – see material 11 in this Appendix
20. *Event*: Séance hebdomadaire de l´Académie d´Agriculture de France: Des matières premières agricoles aux aliments : Quel impact des procédés de transformation sur la qualité de l'alimentation ? (6 documents in total). 2018 a. Introduction - Gérard Pascal b. Impacts des opérations et procédés sur les attributs des aliments - Gilles Trystram c. Mieux connaître la transformation industrielle et la diversité de nos aliments pour une alimentation plus saine et plus durable : exemple d'une cartographie	"[*NOVA is*] a simplistic categorisation which combines in the same category (very) different products...Complexity of processing, so extreme difficulty in defining the concept of ultra-processed foods in a way that allows a solid scientific work. The NOVA classification is not and cannot be robust in methodological terms. The resulting work, no matter how well conducted, is inevitably impacted by this fundamental methodological weakness." "the quality dimension [*of foods*] is rich and important but also complex and difficult to summarise in a food classification based on the degree of processing, that technologists themselves have difficulty defining. Based on previous interventions, Véronique Braesco insists on the lack of robustness of the NOVA classification and the need to go further, to better build this classification, using experts in food processing. She adds that the

multicritère du marché français des pizzas- Isabelle Souchon d. La structure des aliments module leur cinétique de digestion et la biodisponibilité des nutriments - Didier Dupont e. Conclusion - Véronique Braesco	classification should take into account many more factors than the degree of processing (such as cost, environmental impact, consumer appreciation) to be truly considered integrative…." [*Translated from French by the first author*] (Académie d'Agriculture de France 2018b)
21. *Project*: Brasil Processed Food 2020 a. Publication: ITAL. Alimentos industrializados: a importância para a sociedade brasileira . Editores: Rego R. A., Vialta A. and Madi L. 2018. http://alimentosindustrializados.com.br/2/ b. website: http://www.alimentosprocessados.com.br/plataforma.php	"Parts 3, 4 and 5 [*of the report*] are devoted to demonstrating the inconsistencies of the NOVA "classification" of food, which, in summary, recommends that consumers avoid foodstuff biasedly defined as "ultraprocessed". Examples are provided to show evidence of the inconsistencies and generalisations that characterise the myth of "ultra-processed food." "a) From a technical point of view, there is no classification based on degrees of processing, although a terminology is used and tries to lead to this understanding; b) From the statistical point of view, there is no evidence that there is a significant difference between the nutritional contents of processed foods from homes, restaurants and industries; c) From a scientific point of view, there is no evidence that the use of convenience products adversely affects culture, social life and the environment; d) From the scientific and regulatory point of view, the presence of industrial ingredients and food additives can NOT be used as a criterion for defining a food as unsuitable for consumption; e) From a practical point of view, there is no way to establish the fact that a moderate use of sugar, salt and fats is recommended for domestic culinary preparations, and that at the same time its use in the industry generates products that should be avoided or contain such ingredients too much." "The critical analysis of the characteristics specified for defining foods as being "ultraprocessed" reveals that this concept is based on assumptions that contradict regulatory agencies, that are not directly related to the content of products, and are found to be false for most categories of industrialised products labeled "ultraprocessed foods"." "a brief analysis of the products marketed in supermarkets can demonstrate that the concept of "ultraprocessed food" cannot fulfill the purpose for which it was designed, i.e., to identify food suitable for consumption, once a consumer attempts to select products by comparing the products based on the characteristics pointed out by NOVA." [*Translated from Portuguese by first author*] (Rego, Vialta, and Madi 2018)

	"MYTH: The existence of ultraprocessed foods FACT: There are NO ultraprocessed foods! It is a definition that is not based on food science and technology nor on the reality of the market. There is no such definition in the field of food science and technology. This definition does not hold in the light of food science and technology, contradicts current norms and legislation, and classifies foodstuffs without consistent fundamental criteria. The definition was created by professionals from other areas who do not master the theory and practice of food processing. This classification is condemned by most institutions in the area of food science and technology. The use of this definition to assert that industrialised foods are inadequate for consumption ignores the fact that these foods are approved by government regulatory agencies after rigorous analysis to prove their efficacy and safety for consumption. Thus, it contradicts and confronts the determinations of the regulatory agencies of the Ministries of Health and Agriculture and Supply." [*Translated from Portuguese by first author*] (Instituto de Tecnologia de Alimentos 2018)
22. *Public hearing*: Comentarios al Proyecto de Ley 07 de 2017 por Jairo Romero, audiencia publica de la comisión séptima del senado de la republica de Colombia, Octubre 26 de 2017. 2017	"There are well-founded criticisms of the NOVA system and the science that supports it.… [*NOVA*] ignores or does not know classification models used internationally.… The definitions and classification criteria [*of NOVA*] are vague and prone to interpretation.… The studies that support the NOVA system frequently present tautologies as certain scientific facts; use experimental designs highly questionable.… [*Is this an*] ideology with the appearance of science?" [*then presents about science and technology as serving humanity*] [*Translated from Spanish by first author*] (Romero 2017)
23. *Other presentation*: Acerca de los sistemas de clasificación de alimentos y su racionalidad científica, IIº consejo tecnico de IFAN, Santiago de Chile, 27 de marzo, 2018. 2018	"The proponents of NOVA, in advocating for the avoidance of ultra-processed foods and the reduced intake of processed foods, must recognise that they have a duty to verify that such move is within the resources of ordinary families in order to address the issues of nutritional security. Given the importance of the contribution of processed foods to the intake of macronutrients and micronutrients, it does not seem prudent to approve NOVA's

	recommendation to avoid the intake of ultra-processed foods and to minimise the intake of processed foods. To date, no data have been presented regarding the positive or negative results of that strategy among free-living subjects and there are no data regarding the average consumer's ability in terms of income, culinary skills, available culinary facilities and time or availability of food to support the case that the abandonment of ultra-processed foods would significantly alter the nutritional well-being. Without these data, there may be some ethical issues that should be taken into account before they occur." [*translated from Spanish by first author*] (Moran 2017)
24. *Video*: One Size Doesn't Fit All When it Comes To Processed Foods http://bcove.me/gzuw84jj	Presentation of a different food classification. Food that we purchase is safe to consume and have a good nutrition content. (Eicher-Miller 2013)
25. *Video*: Processed Food Makes Our Lives Better http://bcove.me/0nq5lbx2	The negative press about processed foods means that people don't understand that processing can make foods healthier and that the food processing industry has made their lives better. (Decker 2013)
26. *Video:* Everything is Processed http://bcove.me/p3fyebvk	Everything we eat is processed. We can't say that processing is bad because without processing, we can't have the safe, the nutritious, the variety of foods that we have today; and it has made our food a lot less expensive than what it used to be. (Floros 2013)
27. *Video:* Processed Foods Wonderful For Women http://bcove.me/77r4zm4t	Processed foods are wonderful for women as it allows them to go out, pursue their passion, and come back to their homes and still be able to put a hot meal on the table, and ensure that every member of their family gets what they want and what they like. (Shelke 2013)

Appendix 3: Evidence for data included in Table 1 and in the results section of this manuscript

Name - author	**Institution**	**Document criticising NOVA**	**Where was the document presented**	**Document hosted by an organisation that is affiliated with the UPP industry?**	**Institution of the author affiliated with the UPP industry?**	**Declaration of interests**	**Funding aknowledgment**	**Other links with the UPP industry**
Braesco Véronique	VAB Nutrition, France	Séance hebdomadaire de l´Académie d´Agriculture de France (6 documents) https://www.academie-agriculture.fr/actualites/academie/seance/academie/des-matieres-premieres-agricoles-aux-aliments-quel-impact-des	Académie d´Agriculture	The Academie is a partner of most professional organisations in the agro and agrobusiness sector https://www.academie-agriculture.fr/academie/rayonnement-partenariat/autres-partenaires				Directrice du département recherche nutrition du **groupe Danone** (Danone Vitapole en 2000), directrice du centre de recherches en nutrition humaine d'Auvergne et du laboratoire INRA "micronutriments et maladies métaboliques" (2003), directrice de **VAB-nutrition, une société de conseil et de services en nutrition dédiée aux acteurs du domaine agro-alimentaire** (depuis 2007). https://www.academie-agriculture.fr/membres/annuaire/veronique-braesco Editorial Board of the Cahiers de Nutrition et Diététique - see info for "Cahiers de Nutrition et Diététique"
Chardigny Jean-Michel	Institut National de Recherche Agronomique (INRA), France	Alimentation, santé publique, étiquetage, où va-t-on ? Cahiers de Nutrition et Diététique	Cahiers de Nutrition et Diététique	Yes, members of the editorial board working for the food industry (Nestlé and VAB Nutrition) https://www.journals.elsevier.com/cahiers-de-nutrition-et-de-dietetique/editorial-board				Participated in an **ILSI Europe** event in 2012: http://ilsi.eu/wp-content/uploads/sites/3/2016/06/p-MIN-WS-18jn12-am.pdf Conseil d´administration **FFAS**: http://alimentation-sante.org/organisation/conseil-dadministration/
Clemens Roger	T. Horn La Miranda, and Southern California	Is Processed" a Four-Letter Word? The Role of Processed	Advances in Nutrition +	See Journal of the American Society for Nutrition Cereals 17 is organised by the **cereals industry**		The ASN symposium was co-sponsored by the **Institute of Food Technologists (IFT) and the International Food Information Council (IFIC**).		http://www.polyscienceconsulting.com/roger-clemens.html Scientific Advisor for **Nestlé USA** for more than 21 years

	Los Angeles, USA	Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition. + AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawded? (2 documents)	AACCI			(...) funds to support this publication were provided by an educational grant from the **Campbell Soup Company**. The symposium was chaired by Guy Johnson and Janet King. The Guest Editor for this symposium was Connie Weaver. Guest Editor disclosure: Connie Weaver received research grants from **Dairy Management Inc. and Nestle**, and is on the Scientific Advisory Board for **Pharmavite**.		Worked for **Horn**, and ingredients supplier, which clients included : Beneo, Cargill (http://www.ethorn.com/ssw/) Institute of Food Technologists (IFT) and former member of the IFT Board of Directors http://www.ift.org/About-Us/Volunteer/Volunteer-Profiles/Roger-Clemens.aspx Presented work funded by **ILSI North America**: http://ilsi.org/event/ift-2014-regulating-sugar-existing-policies-trends-and-scientific-justification/ More DOI in another article: During the period of 2010 through 2015, Dr. Roger Clemens provided consultative services and/or served on an advisory council to the following: **Abbott Nutrition; Almond Board of California; American Society for Quality; Assure Water; Authen Technologies; Barilla; Bayer; California Walnut Commission; Coca-Cola (honorarium directly given to charity); Corn Refiners Association; Danish Agriculture and Food Council; Dairy Council of California; Dentons LLP; E.T. Horn; FMC (honorarium directly given to charity); Food Minds; HyCite; Jenner & BlockLLP; Kellogg; Malaysian Palm Oil Council; McDonalds; MeadJohnson; Mushroom Council; National Fisheries Institute; National**

								Restaurant Association; Nestle SA; Petcurean; Quaker Oats;Schwann Foods; Senomyx (honorarium directly given to charity);Spherix; U.S. Dept. of Agriculture; Whitewave and Yakult. https://onlinelibrary.wiley.com/doi/epdf/10.1111/1541-4337.12194
Darmon Nicole	Univ Aix-Marseille 1, Univ Aix-Marseille 2, France	Nutrient profiling: The good, the bad, and the ultra-processed. Public Health Nutrition.	Public Health Nutrition					Received a price from **Ajinomoto**: https://www.foodbev.com/news/prix-ajinomoto-2008-awarded-to-nicole-darmon-phd/ Presented at an **ILSI** conference: http://ilsi.org/event/climate-change-nutrition-health/ In the publication above, she presents herself as from INRA + the **Foundation Daniel et Nina Carasso**, a foundation set up by the founder of the **Danone Company** (https://fondationcarasso.org/en/daniel-and-nina-carasso) - she was a member of the prize committee as well (https://fondationcarasso.org/en/members-prize-committee-premio-2015) Conseil Scientifique et Ethique **FFAS**: http://alimentation-sante.org/organisation/conseil-scientifique/
Decker Eric	University of Massachusetts, USA	Video: Processed Food Makes Our Lives Better	Institute of Food Technologists	See IFT				**ILSI North America** award in 2017 http://ilsina.org/about-us/award-programs/ +

		http://bcove.me/0nq5lbx2						He has received numerous recognition for his research including awards from the American Oil Chemist Society, the Agriculture and Food Chemistry Division of ACS, the **International Life Science Institute**, Royal Society of Chemistry and the **Institute of Food Technologist** Elected **American Meat Science Association Board of Directors** (2000-2002) Future Leader Award, **International Life Science Institute** (1996) Achievement Award for Young Scientists, **American Meat Science Society (1993) and** many interactions with **American Meat Science Society** and **American Oil Chemist Society**, among others https://www.umass.edu/foodsci/faculty/eric-decker + invited to present on many occasions, including: Omega-3 Fatty Acid Delivery Systems for Foods. **Coca-Cola Co.**, Atlanta, GA. Oxidation in Emulsions: Critical Issues and Current Challenges, **Nestle**', San Seplco, Italy + https://www.umass.edu/foodsci/sites/default/files/VITA_1.pdf PI on grants from **Kao Corporation, DSM, Cargill, Bunge Foods, Kraft Foods, Pepsi-Cola Company, National Cattlemen's Beef Association, National Livestock and Meat Board, Dairyman Inc, Roche, Pfizer, National Pork Producers Council, Kentucky Beef Cattle,**

								National Dairy Council Association, National Dairy Research and Promotion Board + many other as a co-I
Dupont Didier	INRA, France	Séance hebdomadaire de l´Académie d´Agriculture de France (6 documents) https://www.academie-agriculture.fr/actualites/academie/seance/academie/des-matieres-premieres-agricoles-aux-aliments-quel-impact-des	Académie d´Agriculture	The Academie is a partner of most prof organisations in the agro and agrobusiness sector https://www.academie-agriculture.fr/academie/rayonnement-partenariat/autres-partenaires				
Dwyer Johanna	Tufts University , and Office of Dietary Supplements, National Institutes of Health, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition. + Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition.	American Journal of Clinical Nutrition+American Society fo Nutrition	See Journal of the American Society for Nutrition		J Dwyer, serves as an unpaid board member for the **International Life Sciences Institute of North America**; serves on scientific advisory boards for **ConAgra Foods Inc, McCormick Inc, Bay State Milling, and Nestle**;performed speaking engagements for **Ocean Spray** and the **Alliance for Potato Research and Education**; and owns stock in **ConAgra Foods Inc, McCormick Inc, and Hershey**.The ASN symposium was co-sponsored by the **Institute of Food Technologists (IFT) and the International Food Information Council** (IFIC). (...) funds to support this publication were provided by an educational grant from the **Campbell Soup Company**.		

		Advances in Nutrition.				The symposium was chaired by Guy Johnson and Janet King. The Guest Editor for this symposium was Connie Weaver. Guest Editor disclosure: Connie Weaver received research grants from **Dairy Management Inc. and Nestle**, and is on the Scientific Advisory Board for **Pharmavite**.J. T. Dwyer, trustee of **ILSI North America**; a member of the Scientific Advisory Boards of **ConAgra Foods, The McCormick Science Institute, E. I. du Pont de Nemours and Company (DuPont) and Bay State Milling Company**		
Eicher-Miller Heather	Purdue University, USA	Contributions of Processed Foods to Dietary Intake in the US from 2003–2008: A Report of the Food and Nutrition Science Solutions Joint Task Force of the Academy of Nutrition and Dietetics, American Society for Nutrition, Institute of Food Technologists, and International Food Information Council. Journal of Nutrition. +	The Journal of Nutrition from the ASN + Institute of Food Technologists + journal Nutrients + Journal of the Academy of Nutrition and Dietetics	See Journal of the American Society for Nutrition Institute of Food Technologists IFT: current President from DuPont Nutrition and Health http://www.ift.org/About-Us/Our-Leadership/Cindy-Stewart.aspx current treasurer: a seasoned industry veteran with more than 21 years of food and beverage experience spanning multiple functions of research and development. http://www.ift.org/About-Us/Our-Leadership/Scott-Lineback.aspx Members of board of directors from industry: http://www.ift.org/About-Us/Our-Leadership/Bryson-Bolton.aspx http://www.ift.org/About-Us/Our-Leadership/Pam-Coleman.aspx http://www.ift.org/About-Us/Our-Leadership/Carolyn-Fisher.aspx http://www.ift.org/About-		H.A.E-M is a National Dairy Council Ambassador (nutrient paper)		

		Video: One Size Doesn't Fit All When it Comes To Processed Foods http://bcove.me/gzuw84jj + Processed Food Contributions to Energy and Nutrient Intake Differ among US Children by Race/Ethnicity. Nutrients. + Energy and Nutrient Intakes from Processed Foods Differ by Sex, Income Status, and Race/Ethnicity of US Adults. Journal of the Academy of Nutrition and Dietetics.		Us/Our-Leadership/Jonathan-Gray.aspx http://www.ift.org/About-Us/Our-Leadership/Sarah-Kirkmeyer.aspx http://www.ift.org/About-Us/Our-Leadership/Lauren-Shimek.aspx http://www.ift.org/About-Us/Our-Leadership/Robert-McGorrin.aspx http://www.ift.org/About-Us/Our-Leadership/Roger-Lawrence.aspx				

Floros John	Kansas State University, USA	Video: Everything is Processed http://bcove.me/p3fyebvk	Institute of Food Technologists	See IFT				Worked as an **international industry consultant** for more than 30 years https://chancellorsearch.nmsu.edu/finalists/john-floros/ 2007-08 President, Institute of Food Technologists, Chicago, IL 1995-96 Senior Research Engineer, **Nestle R&D Center Inc**., New Milford, CT 1981-83 Plant Manager, Tomato Processing Plant, Central Union of Agricultural Cooperative, Ilia, Greece 2015 Sustainability of the Global Food Supply, Keynote Speaker, Annual Symposium of the **Dairy Farmers of Canada**, Edmonton, Toronto, Montreal and Moncton, Canada 2011 The Role of Processed Foods in our Food System – Past, Present & Future, Keynote Address, **American Meat Institute** (AMI) Meeting, Chicago, IL + among others, grants from **Indiana and Mid-America Food Processors Associations, Tropicana and Enerfab** https://chancellorsearch.nmsu.edu/wp-content/uploads/sites/74/2018/04/NMSU-CV-John-Floros-.pdf

Forde Ciaran	Singapore Institute for Clinical Sciences | SICS · Clinical Nutrition Research Center, Singapour	Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. (and corrigendum)	American Journal of Clinical Nutrition	Journal of the American Society for Nutrition List of **partners** from the industry https://nutrition.org/sustaining-partners/ Abbott Nutrition, Almond Board of California, Bayer HealthCare, Biofortis Clinical Research, California Walnut Commission, Cargill, Inc., Corn Refiners Association, Council for Responsible Nutrition, Dairy Research Institute, DSM Nutritional Products, LLC, Dupont Nutrition & Health, Egg Nutrition Center, General Mills Bell Institute of Health and Nutrition, Herbalife/Herbalife Nutrition Institute, International Bottled Water Foundation, Kellogg Company, Kyowa Hakko U.S.A., Inc., Mars Inc., McCormick Science Institute, Mondelez International Technical Center, Monsanto Company, National Cattlemen's Beef Association, a contractor to The Beef Checkoff, Nestle Nutrition, Medical Affairs, PepsiCo, Pfizer, Inc., Pharmavite LLC, Tate & Lyle, The a2 Milk Company The Coca Cola Company, The Dannon Company, Inc., The Sugar Association, Unilever ASN Foundation's 2018 **scholarship**s https://nutrition.org/about-asn/awards/ **The Gerber Foundation Predoctoral Fellowship** **The Pfizer Predoctoral Fellowship** **The Mars, Inc. Predoctoral Fellowship**		Until October 31, 2014, employee of the **Nestle Research Center** He has received travel reimbursement from **Kerry Taste and Nutrition** Some of his research on child eating behavior is partially co-funded by the **Nestle Research Center**		Sensory Ingestive Behaviour Team - Clinical Nutrition Research Centre Singapore Institute for Clinical Sciences Dept. Physiology, NUS - Acknowledgements: Research Grant Support from the **Nestle Research Centre-Epigen** Collaboration fund; (G00067; BMSI/15-300004-SICS) awarded to Assoc. Prof. C.G. Forde. Presented at in **ILSI SEA** publication http://ilsisea-region.org/wp-content/uploads/sites/21/2016/12/02-Ciaran-Forde.pdf

Franciscato Cozzolino Silvia Maria	University of São Paulo, Brazil	Comparison of Child Lunch Meals in Brazil. Food and Nutrition Sciences.	Food and Nutrition Sciences			The authors acknowledge **Equilibrium Consultancy** which led this study. Funding by **McDonald's Corporation** for the project was primarily to Equilibrium. (…) CSMF advises McDonald's on nutrition issues.		Wrote reports for **ILSI Brasil** in 2017 http://ilsibrasil.org/wp-content/uploads/sites/9/2017/07/Fasc%C3%ADculo-RECOMENDACOES-DE-NUTRIENTES.pdf http://ilsi.org/brasil/wp-content/uploads/sites/9/2016/05/08-Sele%CC%82nio.pdf Funded and past president of SBAN - many links with the food industry: **Nestlé, Cargill, Danone, Gatorade, ABIA, Coca Cola, Unilever, Herbalife, Performance Nutrition** http://www.sban.org.br/congresso2017/convidados-nacionais/ http://www.sban.org.br/parceiros/parceiros.php http://www.sban.org.br/sociedade/historico.php
Freedman Marjorie	San José State University, USA	Publication in scientific journal/event: Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition.	Advances in Nutrition	See Journal of the American Society for Nutrition		The ASN symposium was co-sponsored by the **Institute of Food Technologists (IFT) and the International Food Information Council (IFIC).** (...) funds to support this publication were provided by an educational grant from the **Campbell Soup Company**. The symposium was chaired by Guy Johnson and Janet King. The Guest Editor for this symposium was Connie Weaver. Guest Editor disclosure: Connie Weaver received research grants from **Dairy Management Inc. and Nestle,** and is on the Scientific Advisory Board for **Pharmavite**.		As Manager, Scientific Affairs, for The **NutraSweet Company**, Freedman traveled throughout the US and abroad educating health care professionals about the safety and benefits of the high-intensity sweetener NutraSweet (aspartame). (...). As a nutrition consultant, Freedman provided expertise to Shape Up America!, **The Kellogg Company, The McDonalds Corp**., Murdoch books, and the USDA. http://www.sjsu.edu/people/marjorie.freedman/

Fulgoni III Victor	Nutrition Impact, LLC Battle Creek, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition +Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition. +Contributions of Processed Foods to Dietary Intake in the US from 2003–2008: A Report of the Food and Nutrition Science Solutions Joint Task Force of the Academy of Nutrition and Dietetics, American Society for Nutrition, Institute of Food Technologists, and	American Journal of Clinical Nutrition +Advances in Nutrition +The Journal of Nutrition from the ASN +journal Nutrients +Journal of the Academy of Nutrition and Dietetics	See Journal of the American Society for Nutrition	https://www.sourcewatch.org/index.php/Nutrition_Impact,_LLCNutrition Impact, LLC helps **companies market their food products by promising drug-like benefits.**	VL Fulgoni III, performs consulting and database analyses for v**arious food and beverage companies and related entities**The ASN symposium was co-sponsored by the **Institute of Food Technologists (IFT) and the International Food Information Council (IFIC)**. (...) funds to support this publication were provided by an educational grant from the **Campbell Soup Company**. The symposium was chaired by Guy Johnson and Janet King. The Guest Editor for this symposium was Connie Weaver. Guest Editor disclosure: Connie Weaver received research grants from **Dairy Management Inc. and Nestle**, and is on the Scientific Advisory Board for **Pharmavite**.Senior Vice President of Nutrition Impact, LLC performs consulting services and database analyses for **various food and beverage companies and related entities** (nutrient paper)		https://www.sourcewatch.org/index.php/Nutrition_Impact,_LLCformer **Kellogg** Vice President Victor L. Fugoni IIISeveral publications funded by the industry: https://nutritionj.biomedcentral.com/articles/10.1186/s12937-015-0057-5: The study and the writing of the manuscript were supported by **Dairy Management Inc.** https://nutritionj.biomedcentral.com/articles/10.1186/s12937-015-0118-9: The present study was funded by **North American Meat Institute**. https://www.researchgate.net/publication/326006345_The_Pattern_of_Complementary_Foods_in_American_Infants_and_Children_Aged_0-5_Years_Old-A_Cross-Sectional_Analysis_of_Data_from_the_NHANES_2011-2014: This research was funded by **National Dairy Council/Dairy Management Inc** https://www.researchgate.net/publication/322562476_Sources_of_Added_Sugars_in_Young_Children_Adolescents_and_Adults_with_Low_and_High_Intakes_of_Added_Sugars: Nutrition Impact LLC (Battle Creek, MI, USA) received financial support from the **Sugar Association f**or the research presented here https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5986414/: The present research was funded and supported by the **Grain Foods Foundation** in Washington, D.C. https://www.researchgate.net/publication/313871451_Several_grain_dietary_patterns_are_associated_with_better_diet

		International Food Information Council. Journal of Nutrition. +Processed Food Contributions to Energy and Nutrient Intake Differ among US Children by Race/Ethnicity. Nutrients. +Energy and Nutrient Intakes from Processed Foods Differ by Sex, Income Status, and Race/Ethnicity of US Adults. Journal of the Academy of Nutrition and Dietetics.						_quality_and_improved_shortfall_nutrient_intakes_in_US_children_and_adolescents_a_study_focusing_on_the_2015-2020_Dietary_Guidelines_for_A: This project has been funded by the **Grain Foods Foundation.**
Gibney Michael	University College Dublin, Ireland	Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. (and corrigendum) + Belgian Nutrition Society, Eight annual meeting, May 4th, 2018:	American Journal of Clinical Nutrition + Belgian Nutrition Society + Current Developments in Nutrition	See Journals of the American Society for Nutrition Sessions of the BNS sponsored by **Yakult, Fédération de l´Industrie Alimentaire (FEVIA) and Beneo Institute**		MJG serves on scientific committees for **Nestle and Cereal Partners Worldwide** The author does ad hoc consultancy work with **Nestlé**, chairs the International Breakfast research Consortium funded by **Cereal Partners Worldwide,** leads a project on the developing food serving sizes for use in the EU funded by **Mondelez, PepsiCo, Unilever, Nestle and Coca Cola** and is on the board of director s of I**LSI Europe**.		Members of the Board of Directors (as of June 2018) **ILSI Europe** http://ilsi.eu/about-us/ Published several articles that were commissioned by **ILSI Europe**: https://link.springer.com/article/10.1007/s00394-007-2004-5: This publication was coordinated by Carina Madsen, Scientific Project Manager at ILSI Europe. This work was commissioned by the Functional Foods Task Force of the European branch of the International Life Sciences Institute (ILSI

		Session 1: Keynote 1: Ultra-processed foods in human health: a critical appraisal + Ultra-processed foods: definitions and policy issues. Current Developments in Nutrition						Europe). Industry members of this task force are Ajinomoto Europe, Barilla G. & R. Fratelli, BASF, Bayer CropScience BioScience, Beneo-Orafti, Beverage Partners Worldwide, Campina, Coca-Cola European Union Group, Colloïdes Naturels International, CSM, Danisco, Dow Europe, Friesland Foods, Frutarom, GlaxoSmithKline, Groupe Danone, Kellogg, Kraft Foods, Mars, McNeil Nutritionals, Monsanto Europe-Africa, Nestlé, PepsiCo International, Procter & Gamble, Raisio, Red Bull, Royal Cosun, Südzucker, Tate & Lyle Speciality Sweeteners, Unilever, Valio, Wild Flavors, Wimm-Bill-Dann Foods, Yakult Europe. https://link.springer.com/article/10.1007/s00394-007-2005-4: same DOI http://ilsi.eu/wp-content/uploads/sites/3/2016/06/O2007Gui_Exp.pdf: Report of an **ILSI Europe** Expert Group Reviewed at a Workshop held in March 2007 Commissioned by the ILSI Europe Packaging Materials Task Force https://link.springer.com/article/10.1007/s00394-013-0553-3: This work was conducted by an expert group of the European branch of the International Life Sciences Institute (**ILSI Europe**). The expert group received funding from the ILSI Europe Functional Foods Task Force. Industry members of this task force are listed on the ILSI Europe website at www.ilsi.eu.

								Participated in events hosted by **ILSI Europe**: http://ilsi.eu/event/marker-initiative-in-nutritional-research-workshop/
Gibney Eileen	University College Dublin, Ireland	Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. (and corrigendum)	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				http://www.ucd.ie/research/people/agriculturefoodscience/dreileengibney/ research sponsored by **Glanbia Ingredients Ireland Ltd and Glanbia Nutritionals (Research) Ltd.** Consultancy for **Drury Communications**, whose clients include **Mc Donald´s** and **Love Irish Food** (https://www.drurypn.ie/clients/) and for **Wilson Hartnell PR**, whose projects included food products (https://www.wilsonhartnell.ie/project/set-siucra-summer/)
Guy-Grand Bernard	Worked in the hospital l'Hôtel-Dieu (Paris), France and currently president of the editorial committee of the journal Cahiers de nutrition et de diététique, France	Aliments « ultra-transformés» et cancer. Cahiers de Nutrition et Diététique.	Cahiers de Nutrition et Diététique	See journal Cahiers de Nutrition et Diététique				President of the **Fond Français pour l´Alimentation et la Santé (FFAS)** http://www.ria.fr/actualites/ils-bougent/bernard-guy-grand-president-du-ffas-1,4,3002609175.html http://alimentation-sante.org/ils-nous-soutiennent/ http://alimentation-sante.org/quest-ce-que-le-ffas/
Miller Jones Julie	St. Catherine University, USA	The Nutrition Society, Spring Conference 2018: Nutrient-nutrient interaction,	The Nutrition Society + AACCI	Sessions of the BNS sponsored by **Yakult, Fédération de l´Industrie Alimentaire (FEVIA) and Beneo Institute** Cereals 17 is organised by the		Julie Miller Jones is a scientific advisor to the Grains Food Foundation, The Healthy Grains Institute (Canada), Quaker Oats Advisory Board, and the Campbell Soup Company Plant and Health	The concept and much background for the present paper resulted from work of the Ad Hoc Joint Food and Nutrition Science Solutions Task Force (Task Force) [2006–2016], representing the Academy of Nutrition and	https://grainfoodsfoundation.org/experts/julie-miller-jones-phd-ln-cns/: part of the **General Mills** speaker's bureau For the national **American Association of Cereal Chemists** (AACC)

		Plenary Lecture One Avoid processed and ultra processed foods: Sound bite advice or just a sound bite + AACCI Events & News: Cereals 17 Symposium: Food selection according to food processing: fabulous or flawded? (2 documents) + Conference on 'Nutrient–nutrient interaction' Plenary Lecture 1- Food processing: criteria for dietary guidance and public health? Nutrition Society Scottish Section Meeting held at the Royal College of Physicians and Surgeons, Glasgow on 26–27 March 2018. Proceedings of the		**cereals industry** See Nutrition Society		Advisory Board. She has written papers of given speeches for Centro Internacional de Mejoramiento de Maíz y Trigo CIMMYT (International Maize and Wheat Improvement Center, Mexico), Cranberry Institute, and Tate and Lyle.	Dietetics, American Society for Nutrition (ASN), Institute of Food Technologists (IFT), and International Food Information Council (IFIC). The author would like to take this opportunity to thank 2015–2016 members of the Task Force, who helped with the manuscript: Mildred M. Cody, Roger Clemens, Janet Collins, Silvia Dumitrescu, Johanna T. Dwyer, Mary Christ-Erwin, Guy Johnson, Gil Leveille, Barbara Ivens, Catherine Metzgar Lo, Farida Mohamedshah, Sarah Ohlhorst, Robert C. Post, and Katherine Wilkes. While the Task Force was made up of members of the Academy IFT, ASN or IFIC, the present paper may not reflect the positions of those organisations. The staff from the Academy of Nutrition and Dietetics, ASN, IFT and IFIC assisted with the planning and facilitation of the conference calls and with the review and editing of the manuscript. No specific grant from any funding agency, commercial or not-for-profit sectors was received for the development of this manuscript	International, she is past president and chair of the board of the national organization and has served in many capacities both nationally and locally. Currently, she heads the Whole Grains Task Force and the Glycemic Carbohydrate Definition Committee She is a scientific advisor to the carbohydrate committee of the **International Life Sciences Institute**. She is on the scientific advisory panel for the **Grains Food Foundation** and **Chartwell**. She has been the consultant for **many companies** http://healthygrains.ca/about/scientific-advisory-council/dr-julie-miller-jones/: Dr. Jones is a scientific advisor for many organizations including (...), **the Grains Food Foundation, Wheat Foods Council, Spokesperson for International Food Information Council, and the Healthy Grains Institute**. https://www.cimmyt.org/essential_grid/julie-miller-jones/: She is a scientific advisor for many organizations including the **EU HealthGrain Platform on Whole Grains, Carbohydrates and Dietary Fibre,** (..), the carbohydrate committee of the **International Life Sciences Institute of North America**, the **Grains Food Foundation**, and the **California Fig Advisory Board** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3568172/: author on a publication,

		Nutrition Society.						where she received funding for travel to the workshop from **ILSI**
Keast Debra	Food & Nutrition Database Research, Inc. USA	Contributions of Processed Foods to Dietary Intake in the US from 2003–2008: A Report of the Food and Nutrition Science Solutions Joint Task Force of the Academy of Nutrition and Dietetics, American Society for Nutrition, Institute of Food Technologists, and International Food Information Council. Journal of Nutrition. + Processed Food Contributions to Energy and Nutrient Intake Differ among US Children by Race/Ethnicity. Nutrients. + Energy and Nutrient Intakes from Processed Foods Differ by Sex,	The Journal of Nutrition from the ASN + journal Nutrients + Journal of the Academy of Nutrition and Dietetics	See Journal of the American Society for Nutrition		President of Food and Nutrition Database Research, Inc. was subcontracted by **Nutrition Impact, LLC** to conduct this research and other research funded indirectly by the **International Life Sciences Institute-North America (ILSI-NA)** (nutrient paper)		No webiste for that company, but the President of that company has published several papers in the field, many with the ASN, and many with people closed to the industry https://www.linkedin.com/in/debra-r-keast-phd-a8564412

		Income Status, and Race/Ethnicity of US Adults. Journal of the Academy of Nutrition and Dietetics.						
King Janet	University of California, Davis, and Children's Hospital Oakland Research Institute, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition.	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				Give presentations for **ILSI SEA region**: http://ilsisea-region.org/wp-content/uploads/sites/21/2017/10/ILSI-SEA-Region-Newsletter-October-2017.pdf http://ilsisea-region.org/wp-content/uploads/sites/21/2017/05/01-Janet-King.pdf Council member of the **Nestlé Foundation** (2012): https://www.nestlefoundation.org/docs/AnnualReport2012.pdf
Lecerf Jean Michel	Institut Pasteur de Lille, France	Les aliments hyper-transformés : un nouveau concept discuté. Médecine des Maladies Métaboliques.	Journal Medecine des maladies metaboliques		The Institut Pasteur de Lille has many links with the industry See paper https://www.cambridge.org/core/journals/public-health-nutrition/article/corporate-political-activity-of-the-dairy-industry-in-france-an-analysis-of-publicly-available-information/400B6107C8859B9E8B62110E0B5D5EF6https://www.lesjfn.fr/print-full**Conference supported by Danone, Nestle** https://nutrition.pasteur-lille.fr/fileadmin/user_upload/programme_entretiens_de_nutrition-final.pdf **Interbev, CERIN, CEDUS, Aprifel, Foundation Bonduelle, Florette Food Service**https://www.pasteur-lille.fr/nous-soutenir/mecenat/Institute			Scientific committee **Lactalis, Danone, Holder, Thermes de Brides les Bains, Avenance, Compass, Accor, Tourpagel, Lidl, Sanofi, MDS, Roche, Abbott**Research for: **Lactalis, Roquette, Bonduelle, Yoplait, Witaxos, Phytobocaz, Master Foods, Lesaffre, Fondimare, IFIP, Distriborg, Synadiet, Chambre Syndicale de la Margarine** https://www.anses.fr/sites/default/files/DPI-Ft-LECERFJean-Michel.pdf Member of the scientific committee for a front group of the **dairy industry** : http://www.lemangeur-ocha.com/auteur/jean-michel-lecerf/Member of the scientific committee of

					supported by **Lactalis, Auchan, Fondation Bel**			**Aprifel (**research on fruits and veg): http://www.aprifel.com/page-conseil-scientifique,9.htmlhttps://twitter.com/Aprifel_FR/status/1004263891587747840Member of the scientific committee of **European Palm Oil Alliance (industry)**: https://www.palmoilandfood.eu/en/our-scientific-advisory-panelhttps://www.palmoilandfood.eu/en/our-membersMember of the scientific committee of the Institut Appert: http://www.cadureso.com/actualite/57-communique-presse/5834-prix-de-recherche-nutrition-a-hygiene-alimentaire-institut-appert-2014President of the scientific committee of the company **Pileje**: http://www.pileje-micronutrition.com/La-Fondation-PiLeJe,1205And published (including videos) for the **dairy industry** as well, **CERIN**: http://sbssa.enseigne.ac-lyon.fr/spip/IMG/pdf/chole_doc_2008_-_AG_et_MCV.pdfhttps://www.youtube.com/watch?v=vvBasM2CjpUPublished in Nutrition Reviews - a journal of **ILSI**: https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1753-4887.2009.00194.x

Leveille Gilbert	Leveille Associates, Denville, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition.	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition	https://www.linkedin.com/in/gilbert-leveille-phd-7179713 President, Leveille Associates, 1996 – o momento (22 anos)Denville, NJ, Food and Nutrition Consultation	GA Leveille, serves on scientific advisory boards for **Hillshire Brands** and the **McCormick Science Institute**		https://www.linkedin.com/in/gilbert-leveille-phd-7179713 Past President, **Institute of Food Technologists**, 1971 – o momento (47 anos), Wrigley Science Institute Executive Director, **Wrigley Science Institute**, 2004 – 2010 (6 anos) VP technology, **Cargill**, 2002 – 2007 (5 anos) WorldWide VP Regulatory & Scientific Affairs, **McNeil Nutritionals**, 1999 – 2001 (2 anos)Fort Washington, PA, Responsible for worldwide regulatory activities and science VP, Research & Technical Services, **Nabisco**, 1988 – 1996 (8 anos)East Hanover, NJ, Responsible for fundamental research, extrusion research and scientific services Past President, American Society for Nutriion, 1988 – 1989 (1 ano)
MacDonald Ruth	Iowa State University, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition.	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				

Madi Luis	ITAL, Brazil	The Myth of Ultra-Processed Foods. EC Nutrition. + Brasil Processed Food 2020 a. publication: ITAL. Alimentos industrualuzados: a importancia para a sociedade brasileira . Editores: Rego R. A., Vialta A. and Madi L. 2018. http://alimentosindustrializados.com.br/2/ b. website: http://www.alimentosprocessados.com.br/plataforma.php + Brasil Processed Food 2020: um projeto em defesa da industrializaçção de alimentos. Brazilian Journal of Food Technology.		EC Nutrition : Predatory journal		With technical and scientific information, without value judgments or conflicts of interest, the knowledge in greater detail about the products and their ingredients and forms of processing can serve as support to the purchasing decisions of the Brazilian consumers, in the exercise of their free will		Equipe Técnica do **Brasil Food Trends** see Raul Rego http://www.ital.sp.gov.br/noticias.php?not_id=661 **Brasil Processed Food 2020**: protocolo de intenção com a **Associação Brasileira das Indústrias da Alimentação (Abia)** O protocolo tem duração de três anos, e assinaram como testemunhas o diretor do Ital, Luís Fernando Madi; o diretor superintendente da **Associação Brasileira das Empresas de Refeições Coletivas**, Antônio Guimarães; o diretor técnico da **Associação Brasileira de Proteína Animal**, Ariel Antônio Mendes; o vice-presidente da A**ssociação Brasileira da indústria de Embalagens Plásticas**, Beni Adler; o presidente da **Associação Brasileira da Indústria de Alimentos para Fins Especiais e Congêneres**, Carlos Eduardo Gouvêa; o gerente executivo da **Associação Brasileira das Indústrias de Biscoito, Massas Alimentícias e Pães & Bolos Insudtrializados**, Edgard Sanchez; o presidente da **Associação Brasileira de Marketing Rural e Agronegócio**, Daniel Baptistella; o diretor executivo da **Associação Nacional de Defesa Vegetal** Eduardo Daher; o presidente da **Associação Brasileira das Indústrias de Queijo**, Fábio Scarcelli; o diretor executivo da **Associação Brasileira do Agronegócio**, Luiz Antônio Beltrati Cornacchioni; o assessor técnico da

								Associação Brasileira da Indústria de Trigo, Luiz Carlos Caetano; o diretor executivo da **Associação Brasileira da Indústria do Café**, Nathan Herszkowicz; o presidente da **Associação Brasileira dos Fabricantes de Latas de Alta Reciclabilidade**, Renault de Castro; o gerente jurídico da **Associação Paulista de Supermercados**, Roberto da Silva Borges, o presidente do **Sindicato da Indústria da Pesca no Estado de São Paulo**, Roberto Kikuo Imai, e o presidente da **Associação Brasileira das Indústrias de Equipamentos para Panificação, Biscoito e Massas Alimentícias**, Ronaldo Ferraz Cury. http://www.abiq.com.br/eventos_ler.asp?codigo=1653&codigo_categoria=5&codigo_subcategoria=25 http://www.aberc.com.br/Uploads/pdfs/Jornal_ABERC-143.pdf https://abia.org.br/vsn/printnoticia.aspx?id=21 Received a Jury Award from **Food Ingredients South America** Innovation Awards 2018 - Food Ingredients is a conference organised by/for the food industry (https://www.fi-events.com.br/pt/empresas-expositoras) https://www.fi-events.com.br/pt/jurados Worked with the International Association of Packaging Research Institutes, IAPRI http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4783071T7

Martins Carolina	Unknown, was working with the University of São Paulo , Brazil at the time of publication	Comparison of Child Lunch Meals in Brazil. Food and Nutrition Sciences.				The authors acknowledge **Equilibrium Consultancy** which led this study. Funding by **McDonald's Corporation** for the project was primarily to Equilibrium.		No information online
Morán Javier	Universidad Católica San Antonio de Murcia , Spain	Acerca de los sistemas de clasificación de alimentos y su racionalidad científica	IFAN Chile	Yes, **public-private initative** http://ifan.cl/quienes-somos/				Tras **trabajar 15 años en la industria alimentaria**, en distintas posiciones, en Latinoamérica y Europa, desde 1998 es Socio-Director de Food Consulting & Associates. http://www.nutraceuticalseurope.com/wp-content/uploads/2016/09/CV-bilingüe-JMorán.pdf http://www.foodconsulting.es Participated in conferences sponsored by the **food industry** http://www.foodconsulting.es/probiota-2018/ http://www.foodconsulting.es/wp-content/uploads/programaprobiota18.pdf **Granotec** http://icn2017.com/docs/preliminary_sponsored_programme.pdf https://www.fdf.org.uk/events/HCNP.pdf Research funded by the industry: **Gallina Blanca STAR (GBST), Grupo Carinsa, WILD Valencia, S.A, Probelte bio, Ibermática, 2BBlackBio, Go Fruselva S.L.U, Asturiana, Biocentury S.L.U** https://www.nutraingredients.com/Article/2012/01/05/Olive-oil-extract-space-gains-another-player http://www.henufood.com/pa

								rticipantes/empresas/index.html
Mullally Deirdre	University College Dublin, Ireland	Ultra-processed foods in human health: a critical appraisal. American Journal of Clinical Nutrition. (and corrigendum)	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				Graduated in 2016 - https://www.linkedin.com/pub/dir/Deirdre/Mullally

Ordovas Jose	Office of Dietary Supplements, NIH, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition.	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				Presented at **ILSI** events: http://ilsi.org/event/experimental-biology-2016-2/ http://ilsi.org/event/ilsi-north-america-mid-year-meeting/ http://ilsi.org/event/big-data-and-other-innovative-approaches-to-understanding-dietary-patterns-and-health/ Publications funded by ILSI: https://academic.oup.com/ajcn/article/89/5/1509S/4596902 : Funds to support the writing of this manuscript were provided in part by the Project Committee on Early Nutrition of the **International Life Sciences Institute North American Branch**.
Pascal Gérard	Retired, worked at INRA, France	Séance hebdomadaire de l´Académie d´Agriculture de France (6 documents) https://www.academie-agriculture.fr/actualites/academie/seance/academie/des-matieres-premieres-agricoles-aux-aliments-quel-impact-des	Académie d´Agriculture	The Academie is a partner of most prof organisations in the agro and agrobusiness sector https://www.academie-agriculture.fr/academie/rayonnement-partenariat/autres-partenaires				Retired **ILSI Europe** Members of the Nomination Committee: http://ilsi.eu/about-us/ Chair of one of their symposium: http://ilsi.org/event/ilsi-europe-2012-annual-symposium-the-21st-century-food-chain/ Also presented at a **Danone Institute** Symposium - http://institutdanone.org/tags_relatifs/toxicologie/

Rego Raul Amaral	ITAL, Brazil	The Myth of Ultra-Processed Foods. EC Nutrition. +Brasil Processed Food 2020a. publication: ITAL. Alimentos industrualuzados: a importancia para a sociedade brasileira . Editores: Rego R. A., Vialta A. and Madi L. 2018. http://alimentosindustrializados.com.br/2/b. website: http://www.alimentosprocessados.com.br/plataforma.php +Brasil Processed Food 2020: um projeto em defesa da industrializaçã o de alimentos. Brazilian Journal of Food Technology.		EC Nutrition : Predatory journal		With technical and scientific information, without value judgments or conflicts of interest, the knowledge in greater detail about the products and their ingredients and forms of processing can serve as support to the purchasing decisions of the Brazilian consumers, in the exercise of their free will		Equipe Técnica do **Brasil Food Trends**One of the coordenadoresPatrocinadores: **ABIC, ABLV, Cargill, Coca-Cola, Danone, Fispal Tecnologia, Grupo Pao de Azucar, Fundepag, Jenkor, JBS, M Cassab, MDF, Monsanto, Nestle, Sindicarnes, Tetrapac**khttp://www.brasilfoodtrends.com.br/equipetecnica.htmlApoio tecnico: **ABIA, APAS, ECD, ESPM, FOOD design**http://www.brasilfoodtrends.com.br/publicacao.html **Brasil Processed Food 2020**, see Luis MadiParticipação ativa no congresso e Prêmio **SBAN ILSI**http://ilsibrasil.org/wp-content/uploads/sites/9/2016/10/boletim_ilsi_19_alta.pdfParticipated in many events organised for/by industry actors: **Latin America Symposium of Food Science, SIAL Brazil, Vitafoods South America**http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4785940P5
Romero Jairo	ALACCTA Asociación Latinoamericana y del Caribe de Ciencia y	Comentarios al Proyecto de Ley 07 de 2017, audiencia publica de la comisión	Colombian Senate		Yes, food industry trade assoc			Presented for **ILSI** in 2018 http://ilsibrasil.org/wp-content/uploads/sites/9/2018/04/Dr.-Jairo-Romero-Data-and-Emotions.pdf And earlier http://ilsinorandino.org/wp-

	Technologia de Alimentos	séptima del senado de la republica de Colombia, Octubre 26 de 2017						content/uploads/sites/16/2016/12/La-ciencia-detrás-de-regulaciones-Jairo-Romero.pdf
Sanchez Oliveira Jensen Natália	Translator for ACME, Brazil	Comparison of Child Lunch Meals in Brazil. Food and Nutrition Sciences.				The authors acknowledge **Equilibrium Consultancy** which led this study. Funding by **McDonald's Corporation** for the project was primarily to Equilibrium.		Graduated from USP, Brazil in 2014 https://br.linkedin.com/in/nataliasanchezoliveirajensen
Schmidt David	International Food Information Council, USA	Is "Processed" a Four-Letter Word? The Role of Processed Foods in Achieving Dietary Guidelines and Nutrient Recommendations. American Society for Nutrition. Advances in Nutrition.	Advances in Nutrition	See Journal of the American Society for Nutrition	https://www.foodinsight.org/about#block-block-17 IFIC Supporters: IFIC is supported by the following companies from the broad-based food, beverage and agricultural industries: Abbott Nutrition, Atkins Nutritionals, Inc., Barilla Group Bayer CropScience LP, Cargill, Incorporated, Chobani, The Coca-Cola Company, Compass Group, Danone North America PBC, Dow AgroSciences, LLC, DSM, DuPont Nutrition & Health, Ferrero USA, General Mills, Inc., Heartland Food Products Group, The Hershey Company HYET Sweet, Mars, Incorporated, McCormick & Company, Inc., McKee Foods, Mondelēz International, PepsiCo, Red Bull North America, Subway, Yum! Brands, Zoetis	The ASN symposium was co-sponsored by the **Institute of Food Technologists (IFT) and the International Food Information Council (IFIC).** (...) funds to support this publication were provided by an educational grant from the **Campbell Soup Company**. The symposium was chaired by Guy Johnson and Janet King. The Guest Editor for this symposium was Connie Weaver. Guest Editor disclosure: Connie Weaver received research grants from **Dairy Management Inc. and Nestle**, and is on the Scientific Advisory Board for **Pharmavite**.		Schmidt also gained a thorough understanding of the food industry in previous sales positions with leading food and beverage firms, **Oscar Mayer Foods, Pepsi-Cola USA and Canada Dry Corporation.** https://www.foodinsight.org/users/david-b-schmidt Presented at an **ILSI Brazil** event http://www.fsp.usp.br/site/dcms/fck/file/comunica-e-risco-14.pdf
Schnakenberg David	Unknown	Processed foods: contributions to nutrition. American Journal of	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition				

		Clinical Nutrition.						
Shelke Kantha	Corvus Blue, USA	Video: Processed Foods Wonderful For Women http://bcove.me/77r4zm4t	Institute of Food Technologists	See IFT				Previously employed at ACNielsen, **Ben & Jerry's, Continental Baking Corporation, and Pillsbury**, she is the Science & Technology Editor of **Private Label Manufacturing Association**'s PLMA Live! video magazine, Advisory Board Member of **Nutrition Business Journal**, and Contributing Editor for Prepared Foods magazine. Her book "Pasta and Noodles: a Global History" was just published. Presented at **ILSI North America** event http://ilsi.org/event/the-safety-of-sodium-reduction-in-the-food-supply-a-cross-discipline-balancing-act/
Souchon Isabelle	INRA, France	Séance hebdomadaire de l´Académie d´Agriculture de France (6 documents) https://www.academie-agriculture.fr/actualites/academie/seance/academie/des-matieres-premieres-agricoles-aux-aliments-quel-impact-des	Académie d´Agriculture	The Academie is a partner of most prof organisations in the agro and agrobusiness sector https://www.academie-agriculture.fr/academie/rayonnement-partenariat/autres-partenaires				
Trystram Gilles	AgroParisTech, France	Séance hebdomadaire de l´Académie d´Agriculture	Académie d´Agriculture	The Academie is a partner of most prof organisations in the agro and agrobusiness sector https://www.academie-agriculture.fr/academie/rayon				file:///C:/Users/Usuário%20Convidado/Downloads/trystramgillessection82016.pdf Président of a committee

		de France (6 documents) https://www.academie-agriculture.fr/actualites/academie/seance/academie/des-matieres-premieres-agricoles-aux-aliments-quel-impact-des		nement-partenariat/autres-partenaires				from Fondation Daniel et Nina Carasso - see above, funded by the funder of **Danone** Conseil scientifique **Institut Paul Bocuse** Conseil scientifique **Groupe Avril** signed a joint letter in 2018 with many industry actors - Transforming the European Agri-Food Sector - https://www.eitfood.eu/media/documents/List_of_endorsements.pdf Les membres du groupe Projet "La Solution Alimentation Intelligente" by **ANIA** https://www.ania.net/wp-content/uploads/2017/02/Présentation-Solution-Alimentation-Intelligente.pdf Presented in events funded by industry actors - https://twitter.com/ANIA_FRANCE/status/1009348003264638976 http://www.jas-larochelle.fr/en/partners/food-industry-partners http://www.jas-larochelle.fr/wp-content/uploads/programme-2018-EN-web.pdf Members of the **Conseil National de l´Alimentation** - which woks with the food industry: http://www.cna-alimentation.fr/v1/wp-content/uploads/2016/10/CNA_liste-des-membres-2016-2019_Tableau_2016_10_28.pdf Membres du collège des personnalités qualifiées - **FFAS** http://alimentation-

								sante.org/organisation/conseil-dadministration/
Vialta Airton	ITAL, Brazil	The Myth of Ultra-Processed Foods. EC Nutrition. + Brasil Processed Food 2020 a. publication: ITAL. Alimentos industrualuzados: a importancia para a sociedade brasileira . Editores: Rego R. A., Vialta A. and Madi L. 2018. http://alimentosindustrializados.com.br/2/ b. website: http://www.alimentosprocessados.com.br/plataforma.php		EC Nutrition : Predatory journal		With technical and scientific information, without value judgments or conflicts of interest, the knowledge in greater detail about the products and their ingredients and forms of processing can serve as support to the purchasing decisions of the Brazilian consumers, in the exercise of their free will		COMITÊ TÉCNICO-CIENTÍFICO DO WEBSITE "**ALIMENTOS PROCESSADOS**" - together with industry actors: **ABIA, International Academy of Food Science and Technology - IAFoST, IFIC, Instituto mauá de Tecnologia - IMT, Sociedade Brasileira de Ciência e Tecnologia de Alimentos - SBCTA** http://www.alimentosprocessados.com.br/comite.php ITAL lança portal de conteúdo sobre alimentos processados Fazem parte deste grupo profissionais de instituições como a Associação Brasileira de Editores Científicos (Abec), A**ssociação Brasileira das Indústrias de Alimentação (Abia)**, Associação Brasileira de Nutrologia (Abran), Faculdade de Engenharia de Alimentos e Agrícola da Universidade Estadual de Campinas (FEA/Unicamp), Faculdade de Ciências Farmacêuticas da universidade de São Paulo (USP) e **International Life Sciences Institute do Brasil (ILSI BRASIL)**. http://www.ital.sp.gov.br/noticias.php?not_id=785 Gave a presentation with **ILSI Nor-Andino** and ITAL as his organisations: http://ilsi.org/wp-content/uploads/2018/03/ITAL-Dr-Airton-Vialta-20octubre2016.pdf http://ilsi.org/regional-

								collaboration/ http://elnoti.com/ilsi-nor-andino-presenta-rol-la-ciencia-la-tecnologia-alimentos-bogota/ http://ilsi.org/event/food-science-and-technology/
Weaver Connie	Purdue University, USA	Processed foods: contributions to nutrition. American Journal of Clinical Nutrition.	American Journal of Clinical Nutrition	See Journal of the American Society for Nutrition		CM Weaver, serves as an unpaid board member for the **International Life Sciences Institute of North America** and serves on a scientific advisory board for **Pharmavite** and her university has received research grants from the **Dairy Research Institute, Nestlé, and Tate & Lyle**		https://www.healthpolicyjrnl.com/article/S0168-8510(13)00022-5/pdf: publishes for **ILSI North America** **Vice Chair of the ILSI Board of Trustees and Chair of the ILSI Board Publications Committee** http://ilsi.org/connie-weaver/