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**Pending Admission Pro Hac Vice*

BRYCE MARTINEZ *Plaintiff,* v. **KRAFT HEINZ COMPANY, INC.** One PPG Place, Pittsburgh, Pennsylvania 15222	**IN THE COURT OF COMMON PLEAS OF PHILADELPHIA COUNTY** **CIVIL ACTION – LAW** **JURY TRIAL DEMANDED** **DECEMBER TERM, 2024** **CIVIL NO.**

and

MONDELEZ INTERNATIONAL, INC.
905 West Fulton Market, Suite 200,
Chicago, Illinois 60607

and

POST HOLDINGS, INC.
2503 S. Hanley Road,
St. Louis, Missouri 63144

and

THE COCA-COLA COMPANY
One Coca-Cola Plaza,
Atlanta, Georgia 30313

and

PEPSICO, INC.
700 Anderson Hill Road,
Purchase, New York 10577

and

GENERAL MILLS, INC.
Number One General Mills Boulevard,
Minneapolis, Minnesota 55426

and

NESTLE USA, INC.
812 N. Moore Street,
Arlington, Virginia, 22209

and

KELLANOVA
412 N. Wells Street,
Chicago, Illinois 60654

and

WK KELLOGG CO.

One Kellogg Square, Battle Creek, Michigan 49017 *and* **MARS INCORPORATED, INC.** 6885 Elm Street, McLean, Virginia 22101 *and* **CONAGRA BRANDS, INC.** 222 W. Merchandise Plaza, Suite 1300, Chicago, Illinois 60654 *Defendants*.	
NOTICE **You have been sued in court. If you wish to defend against the claims set forth in the following pages, you must take action within twenty (20) days after this complaint and notice are served, by entering a written appearance personally or by an attorney and filing in writing with the court your defenses or objections to the claims set forth against you. You are warned that if you fail to do so the case may proceed without you and a judgement may be entered against you by the court without further notice for any money claimed in the complaint or for any other claim or relief requested by the plaintiff. You may lose money or property or other rights important to you.** **YOU SHOULD TAKE THIS PAPER TO YOUR LAWYER AT ONCE. IF YOU DO NOT HAVE A LAWYER OR CANNOT AFFORD ONE, GO TO OR TELEPHONE THE OFFICE SET FORTH BELOW TO FIND OUT WHERE YOU CAN GET LEGAL HELP.** **THIS OFFICE CAN PROVIDE YOU WITH INFORMATION ABOUT HIRING A LAWYER. IF YOU CANNOT AFFORD TO HIRE A LAWYER, THIS OFFICE MAY BE ABLE TO PROVIDE YOU WITH INFORMATION ABOUT AGENCIES THAT**	**AVISO** **Le han demandado en corte. Si usted quiere defenderse contra las demandas nombradas en las páginas siguientes, tiene veinte (20) dias, a partir de recibir esta demanda y la notificatión para entablar personalmente o por un abogado una comparecencia escrita y tambien para entablar con la corte en forma escrita sus defensas y objeciones a las demandas contra usted. Sea avisado que si usted no se defiende, el caso puede continuar sin usted y la corte puede incorporar un juicio contra usted sin previo aviso para conseguir el dinero demandado en el pleito o para conseguir culquier otra demanda o alivio solicitados por el demandante. Usted puede perder dinero o propiedad u otros derechos importantes para usted.** **USTED DEBE LLEVAR ESTE DOCUMENTO A SU ABOGADO INMEDIATAMENTE. SI USTED NO TIENE ABOGADO (O NO TIENE DINERO SUFICIENTE PARA PARGAR A UN ABOGADO), VAYA EN PERSONA O LLAME POR TELEFONO LA OFICINA NOMBRADA ABAJO PARA**

MAY OFFER LEGAL SERVICES TO ELIGIBLE PERSONS AT A REDUCED FEE OR NO FEE. **PHILADELPHIA BAR ASSOCIATION LAWYER REFERRAL and INFORMATION SERVICE** **One Reading Center** **Philadelphia, Pennsylvania 19107** **(215) 238-1701**	**AVERIGUAR DONDE SE PUEDE CONSEGUIR ASSISTENCIA LEGAL.** **ESTA OFICINA PUEDE PROPORCIONARLE LA INFORMACION SOBRE CONTRATAR A UN ABOGADO. SI USTED NO TIENE DINERO SUFICIENTE PARA PAGAR A UN ABOGADO, ESTA OFICINA PUEDE PROPORCIONARLE INFORMACION SOBRE AGENCIAS QUE OFRECEN SERVICIOS LEGALES A PERSONAS QUE CUMPLEN LOS REQUISITOS PARA UN HONORARIO REDUCIDO O NINGUN HONORARIO.** **ASSOCIACION DE LICENDIADOS DE FILADELFIA** **SERVICO DE REFERENCA E INFORMACION LEGAL** **One Reading Center** **Filadelfia, Pennsylvania 19107** **Telefono: (215) 238-1701**

CIVIL ACTION COMPLAINT

Now comes Plaintiff Bryce Martinez, against Defendants Kraft Heinz Company, Inc. ("Kraft Heinz"), Mondelez International, Inc. ("Mondelez"), Post Holdings, Inc. ("Post Holdings"), The Coca-Cola Company ("Coca-Cola"), PepsiCo, Inc. ("PepsiCo"), General Mills, Inc. ("General Mills"), Nestle USA, Inc. ("Nestle"), Kellanova, WK Kellogg Co., Mars Incorporated, Inc. ("Mars"), and ConAgra Brands, Inc. ("ConAgra") (collectively, "Defendants"), who alleges as follows:

INTRODUCTION

1. In the United States of America, one of the greatest threats to our health, and the health of our children, are the substances that dominate the shelves of our grocery stores: ultra-processed foods.

2. Ultra-processed foods ("UPF") are industrially produced edible substances that are imitations of food.[1] They consist of former foods that have been fractioned into substances, chemically modified, combined with additives, and then reassembled using industrial techniques such as molding, extrusion and pressurization.[2]

3. UPF are alien to prior human experience. They are inventions of modern industrial technology and contain little to no whole food.[3] However, the prevalence of these foods exploded in the 1980s, and have come to dominate the American food environment and the American diet. The issue is particularly pronounced in children, who now derive over 2/3 of their energy from UPF on average.[4]

4. The explosion and ensuing rise in UPF in the 1980s was accompanied by an explosion in obesity, diabetes, and other life-changing chronic illnesses.[5]

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[1] Carlos A. Monterio et al., *Ultra-processed foods, diet quality, and health using the NOVA classification system*, Food and Agriculture Organization of the United Nations, 2019; Carlos A. Monterio et al., *Ultra-processed foods: what they are and how to identify them*, Public Health Nutr., Apr. 2019; Dr. Jean-Claude Moubarac, *Ultra Processed Food and Drink Products in Latin America: Trends, impact on obesity, policy implications*, Pan American Health Organization, at 6-8, 2015; Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 33, 155, (2023).
[2] Id.
[3] Id.
[4] Lu Wang et al., *Trends in Consumption of Ultraprocessed Foods Among US Youths Aged 2-19 Years, 1999-2018*, JAMA, Aug. 2021.
[5] Regina M. Benjamin, *United States Surgeon General's Vision for a Healthy and Fit Nation*, Public Health Rep., Jul. 2010.

5. During this timeframe, diseases that had been largely confined to elderly alcoholics, such as Type II Diabetes and Fatty Liver Disease, emerged in children.[6] Although such diseases were unheard of in children 40 years ago, they are now common, and treating them constitutes a large fraction of pediatric medical practice.

6. The human genome did not experience a catastrophic failure or paradigmatic shift during this timeframe. Similarly, the explosion of these diseases cannot be explained by a massive nationwide failure of personal responsibility that began in the 1980s. Instead, something else happened in the 1980s.

7. In the 1980s, Big Tobacco took over the American food environment. Phillip Morris bought major US food companies, including General Foods and Kraft.[7] RJ Reynolds purchased Nabisco, Del Monte, Kentucky Fried Chicken, and others.[8]

8. Collectively, Phillip Morris and RJ Reynolds dominated the US food system for decades.[9] During this time, they used their cigarette playbook to fill our food environment with addictive substances that are aggressively marketed to children and minorities.

9. UPF formulation strategies were guided by the same tobacco company scientists and the same kind of brain research on sensory perceptions, physiological psychology, and chemical senses that were used to increase the addictiveness of cigarettes.

10. Studies of how electrical messages are transmitted throughout the central nervous system are used to formulate UPF products. For example, scientists who supervised human

[6] Heather J. Dean & Elizabeth Sellers, Children have Type 2 Diabetes too, a historical perspective, Biochem Cell Biol, Oct. 2015; Ariana Eunjung Cha, *Fatty liver disease rising in U.S. kids as Ultra-Processed Diets Surge*, Washington Post, Oct. 3, 2023.
[7] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023; Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at 122-123, (2013).
[8] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System, Addiction, Sept. 2023.
[9] Id.

electrode tests on nicotine's addictiveness at a secret Phillip Morris laboratory in Germany regularly consulted with Kraft and General Foods on the development of UPF.[10]

11. In doing so, Big Tobacco companies intentionally designed UPF to hack the physiological structures of our brains.[11]

12. These formulation strategies were quickly adopted throughout the UPF industry, with the goal of driving consumption, and defendants' profits, at all costs. The same MRI machines used by scientific researchers to study potential cures for addiction are used by UPF companies to engineer their products to be ever more addictive.[12]

13. At the same time, Big Tobacco repurposed marketing strategies designed to sell cigarettes to children and minorities, and aggressively marketed UPF to these groups.[13] As a Phillip Morris executive boasted at a UPF industry conference, "We've decided to focus our marketing on kids where we know our strength is the greatest".[14]

14. The rest of the UPF industry quickly followed suit, taking a very well-evolved marketing strategy to sell things that make people sick and applying it from one substance, cigarettes, to another: UPF.[15] The UPF industry now spends about $2 billion each year marketing UPF to children.[16]

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[10] Patricia Callahan, *Where there's smoke, there might be food research, too*, Chicago Tribune, Jan. 29, 2006; Interoffice Memo, F. P Gullotta, R. D. Kisner, (Oct. 22, 1991); Interoffice Memo, F. P Gullotta, Dr. R. A Carchman, (Mar. 22, 1991); Interoffice Memo, C. S. Hayes, R. D. Kisner, (Mar. 26, 1991); Interoffice Memo, F. P. Gullota et al., C. K. Ellis, (Nov. 8, 1990).

[11] Robert Lustig, The Hacking of the American Mind, (2017); Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 151-171, (2023).

[12] Laura Schmidt, *Why we can't stop eating unhealthy foods*, Nov. 2015. https://www.youtube.com/watch?v=wTNlHyjip94.

[13] Kim H. Nguyen et al., *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.

[14] Andrew Jacobs, *How Big Tobacco Hooked Children on Sugary Drinks*, New York Times, Mar. 14, 2019

[15] Sarah Berry, *More of us are turning away from our 'vices'. But will it make a difference*?, The Sydney Morning Herald, Nov. 11, 2023.

[16] Center for Science in the Public Interest, *Food Marketing to Children*, (2013), https://www.foodmarketing.org/wp-content/uploads/2013/10/food_marketing_to_children_factsheet_2013.pdf.

15. These strategies have had their intended effect. UPFs meet all the scientific criteria that were used to determine that tobacco products are addictive.[17] Like industrial tobacco products, UPFs trigger compulsive use, have psychoactive effects, are highly reinforcing, and trigger strong urges and cravings.[18]

16. Meanwhile, sales have surged. UPFs have displaced traditional foods and now constitute the vast majority of children's diets.

17. While the multinational UPF companies get richer, Americans get sicker.

18. We are all living with the devastating consequences of defendants' actions. The United States is beset by concurrent epidemics of obesity, diabetes, heart disease, and other conditions.[19] Obesity has doubled among adults and tripled among children.[20] The number of Americans with Type 2 Diabetes has tripled since 1980.[21] Rates of colorectal cancer have doubled in younger adults.[22]

19. For the first time ever, Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease emerged in adolescents around the turn of the millennium.[23] The rates of these diseases in children

[17] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Apr. 2023.
[18] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[19] Regina M. Benjamin, *United States Surgeon General's Vision for a Healthy and Fit Nation*, Public Health Rep., Jul. 2010.
[20] Id.
[21] Id.
[22] Rebecca L. Siegel et al., *Colorectal Cancer Statistics*, CA Cancer J Clin., May 2023.
[23] Heather J. Dean & Elizabeth Sellers, *Children have Type 2 Diabetes too, a historical perspective*, Biochem Cell Biol, Oct. 2015; Ariana Eunjung Cha, *Fatty liver disease rising in U.S. kids as Ultra-Processed Diets Surge*, Washington Post, Oct. 3, 2023.

are now surging, with rates of both doubling in recent years.[24] Non-Alcoholic Fatty Liver Disease is now as common in children as asthma.[25]

20. Scores of high-quality human studies have demonstrated that UPF significantly increase the risks of obesity, Type 2 Diabetes, non-alcoholic fatty liver disease, cancers, cardiovascular disease, cerebrovascular disease, irritable bowel disease, dementia, mental health outcomes, mortality, and other serious chronic illnesses.

21. However, these same studies demonstrate that UPF increase these risks independently of their nutritional profiles. Even after adjustment for the fat, sugar, salt, carbohydrates, and other nutrient profiles, UPF still cause significant health risks.

22. In other words, UPF are dangerous not only because they are designed to hack our physiological nervous system and are aggressively marketed to children. The risks caused by UPF cannot be avoided simply by choosing healthier UPF with less fat, sugar, salt, carbohydrates, or different nutrient profiles. Likewise, UPF does not increase the risks of other conditions simply because it causes obesity.

23. Instead, UPF increase the risks of disease ***because*** they are ultra-processed, not because of how many grams of certain nutrients they contain or how much weight gain they cause. Therefore, even attempts to eat healthfully are undermined by the ultra-processed nature of UPF. One cannot evade the risks caused by UPF simply by selecting UPF with lower calories, fat, salt, sugar, carbohydrates, or other nutrients.

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[24] Jean M. Lawrence, *Trends in Prevalence of Type 1 and Type 2 Diabetes in Children and Adolescents in the US, 2001-2017*, JAMA, Aug. 2021; Children's Health, *Fatty liver disease in children is on the rise*, (Last updated 2024), https://www.childrens.com/health-wellness/fatty-liver-disease-in-children-on-the-rise; Ariana Eunjung Cha, *Fatty liver disease rising in U.S. kids as Ultra-Processed Diets Surge*, Washington Post, Oct. 3, 2023.

[25] Ariana Eunjung Cha, *Fatty liver disease rising in U.S. kids as Ultra-Processed Diets Surge*, Washington Post, Oct. 3, 2023.

24. The UPF industry is well aware of the harms they are causing and has known it for decades. But they continue to inflict massive harm on society in a reckless pursuit of profits.

25. In April 1999, the CEOs of America's largest UPF companies attended a secret meeting in Minneapolis to discuss the devastating public health consequences of UPF and their conduct.[26] At that meeting, a Kraft executive told the other CEOs in attendance that obesity was reaching epidemic proportions, especially among children, who were "at a higher risk of developing chronic diseases such as diabetes, heart disease, hypertension and cancer".[27]

26. This same executive informed the others that their companies were collectively driving this, costing the U.S. upwards of $100 billion a year, and inflicting a toll on public health rivaling that of tobacco.[28]

27. He then implored the attendees to change their ways before this became a crisis for the UPF industry, asking rhetorically, "With all this, can the trial lawyers be far behind?"[29]

28. But nothing changed as a result of that meeting, and the UPF industry has carried on inflicting massive social harm on our health and our children for the last 25 years.

29. Plaintiff Bryce Martinez is one of many casualties of defendants' predatory profiteering. Defendants targeted Plaintiff with marketing campaigns intended to increase his consumption of their UPF, which Defendants engineered to have addictive qualities.

30. Due to Defendants' conduct, Plaintiff regularly, frequently, and chronically ingested their UPF, which caused him to contract Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease

[26] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, (2013); Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).
[27] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, (2013); Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).
[28] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, (2013); Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).
[29] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, (2013); Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999)

at the age of 16. Plaintiff is now suffering from these devastating diseases, and will continue to suffer for the rest of his life.

31. Plaintiff brings this action to recover the damages Defendants have inflicted upon him, as well as all additional damages available under applicable law.

PARTIES

32. Plaintiff Bryce Martinez is a citizen of Pennsylvania and lives in Bucks County, Pennsylvania. As a result of Defendants' conduct, Plaintiff has been exposed to harmful levels of UPF, and has suffered the injuries alleged herein. Plaintiff was exposed to Defendants' conduct in Philadelphia County, and was diagnosed and treated for his injuries in Philadelphia County.

33. Defendant Kraft Heinz Company, Inc. ("Kraft Heinz") is a Delaware corporation with its principal place of business and headquarters located at One PPG Place, Pittsburgh, Pennsylvania 15222.

34. Kraft Heinz is a successor to Philip Morris Companies, Inc., Altria Group, Inc., Kraft General Foods Inc., Kraft Foods Group, Inc., Kraft Foods, Inc. and H.J. Heinz Company.

35. Defendant Mondelez International, Inc. ("Mondelez") is a Virginia corporation with its principal place of business and headquarters located at 905 West Fulton Market, Suite 200, Chicago, Illinois 60607.

36. Mondelez is a successor to R.J. Reynolds Industries Inc., RJR Nabisco Holdings Corp., Nabisco Holdings Corp., Philip Morris Companies, Inc., Altria Group, Inc., Kraft General Foods Inc., Kraft Foods Group, Inc., and Kraft Foods, Inc.

37. Defendant Post Holdings, Inc. ("Post Holdings") is a Missouri corporation with its principal place of business and headquarters located at 2503 S. Hanley Road, St. Louis, Missouri 63144.

38. Post Holdings is a successor to Philip Morris Companies, Inc., Altria Group, Inc., Kraft General Foods Inc., Kraft Foods Group, Inc., and Kraft Foods, Inc.

39. Defendant The Coca-Cola Company ("Coca-Cola") is a Delaware corporation with its principal place of business and headquarters located at One Coca-Cola Plaza, Atlanta, Georgia 30313.

40. Defendant PepsiCo, Inc. ("PepsiCo") is a North Carolina corporation with its principal place of business and headquarters located at 700 Anderson Hill Road, Purchase, New York 10577.

41. Defendant General Mills, Inc. ("General Mills") is a Delaware corporation with its principal place of business and headquarters located at Number One General Mills Boulevard, Minneapolis, Minnesota 55426.

42. Defendant Nestle USA, Inc. ("Nestle") is a Delaware corporation with its principal place of business and headquarters located at 812 N. Moore Street, Arlington, Virginia, 22209.

43. Defendant Kellanova is a Delaware corporation with its principal place of business and headquarters located at 412 N. Wells Street, Chicago, Illinois 60654.

44. Defendant WK Kellogg Co. is a Delaware corporation with its principal place of business and headquarters located at One Kellogg Square, Battle Creek, Michigan 49017.

45. Defendants Kellanova and WK Kellogg Co. are successors to Kellogg Company ("Kellogg's"), and are collectively referred to herein as "Kellogg's".

46. Defendant Mars Incorporated, Inc. ("Mars") is a Delaware corporation with its principal place of business and headquarters located at 6885 Elm Street, McLean, Virginia 22101.

47. Defendant ConAgra Brands, Inc. ("ConAgra") is a Delaware corporation with its principal place of business and headquarters located at 222 W. Merchandise Plaza, Suite 1300, Chicago, Illinois 60654.

JURISDICTION & VENUE

48. Defendants designed, manufactured, packaged, labeled, marketed, sold and/or distributed various UPF throughout the Commonwealth of Pennsylvania, and specifically in Philadelphia County.

49. Personal jurisdiction is proper pursuant to 42 Pa. C.S. §§ 931 and 5301. Defendants are domiciled in Pennsylvania or have consented to jurisdiction in Pennsylvania. Defendants conducted and continue to conduct substantial and systematic business activities in this jurisdiction.

50. Venue is proper in Philadelphia County pursuant to Pa.R.C.P. 1006 and 2179(a)(2), as Defendants regularly conduct business in Philadelphia County and Plaintiff was exposed, diagnosed and treated in Philadelphia County.

51. Plaintiff's claims in this action are brought solely under state law. Plaintiff does not herein bring, assert or allege, either expressly or impliedly, any causes of action arising under any federal law, statute, regulation or provision. Thus, there is no federal jurisdiction in this action on the basis of a federal question under 28 U.S.C. §1331.

52. Furthermore, like Plaintiff, Defendant Kraft Heinz is a citizen of Pennsylvania, therefore there is no federal jurisdiction in this action on the basis of diversity under 28 U.S.C. §1332.

STATEMENT OF FACTS

I. Ultra-Processed Foods

a. What are UPF?

53. UPF is a categorization of food defined by the NOVA System, a scientific framework developed by epidemiologist Carlos Monteiro. The NOVA System is widely used in the international scientific community, and categorizes food based on the extensiveness of processing, without regard to nutrient composition.

54. The key insight underlying NOVA is that food is more than just the sum of its macronutrients, and that food, not nutrients, is the fundamental unit in nutrition.

55. Traditional diets throughout the world are healthful, even though they diverge widely in their nutrient content. For example, traditional Asian diets are high in salt, traditional Latin American diets are high in carbohydrates, and traditional Mediterranean diets are high in fat. Nevertheless, all promote healthful lives and positive health outcomes.

56. UPF are fundamentally different than the foods that make up traditional diets.

57. UPF are industrially produced edible substances that are imitations of food.[30] UPF are formulations of cheap industrial ingredients using a series of industrial processes.[31] These ultra-processed products are not modified foods, but formulations made mostly or entirely of fractionated substances that have undergone hydrolysis, hydrogenation, or other chemical modifications, and contain ingredients that have no or rare culinary use—such as fructose, high-

[30] Dr. Jean-Claude Moubarac et al., *Ultra-Processed Food and Drink Products in Latin America: Sales, Sources, Nutrient Profiles, and Policy Implications*, Pan American Health Organization of the World Health Organization, 2019.
[31] Carlos A. Monteiro et al., *Ultra-processed foods, diet quality and human health*, Food and Agriculture Organization of the United Nations, 2019; Carlos A. Monteiro et al., *UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing*, Public Health Nutr. Jan. 2018.

fructose corn syrup, 'fruit juice concentrates', invert sugar, matlodextrin, dextrose, lactose, hydrogenated or interesterfied oils, hydrolysed proteins, soya protein isolate, gluten, casein, whey protein, 'mechanically separated meat'—and additives such as colors, flavors, flavor enhancers, emulsifiers, emulsifying salts, artificial sweeteners, thickeners, and foaming, anti-foaming, bulking, carbonating, gelling, and glazing agents.[32]

58. Additives are used either to disguise unpleasant sensory properties created by ingredients, processes, or packaging used in the manufacture of ultra-processed products, or give the final product intense sensory properties especially attractive to see, taste, smell, and/or touch, or both.[33]

59. These substances are then assembled into end products using industrial processes such as extrusion, moulding, and pre-frying.[34] Sophisticated and attractive packaging is used, usually made of synthetic materials.[35]

60. The practical way to identify UPF is to see if its list of ingredients contains substances that are never or rarely used in kitchens.[36] If so, the product is UPF.

61. Processes and ingredients used for the manufacture of UPF are designed to create highly profitable products (low-cost ingredients, long shelf-life, branded products) that are hyper-palatable and owned by transnational corporations.[37]

62. UPF are engineered to be overconsumed, addictive and irresistible.[38]

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[32] Id.
[33] Id.
[34] Id.
[35] Id.
[36] Id.
[37] Id.
[38] Carlos A. Monteiro et al., *Ultra-processed foods, diet quality and human health*, Food and Agriculture Organization of the United Nations, 2019; Food, Diet and Obesity Committee, *Corrected Oral Evidence: Food Diet and Obesity, Evidence Session 11, Question 147*, House of Lords, Mar. 2024; Tara Parker-Pope, *How the Food Makers Captured Our Brains*, N.Y. Times, June 22, 2009.

63. These features, along with aggressive marketing—including vivid packaging, health claims, establishment of franchised outlets, campaigns using social, electronic, broadcast and print media, including to children and in schools—has caused UPF to displace real food.[39]

b. UPF are Inherently, and Uniquely, Dangerous

64. The nature of the processes and ingredients used in their manufacture make UPF intrinsically unhealthy.[40]

65. UPF have been extensively studied in epidemiological research. Large, rigorous, high-quality scientific studies have found that consuming UPF significantly increases risks of cancer[41], breast cancer[42], colorectal cancer[43], distal colon cancer[44], pancreatic cancer[45], adenocarcinoma of the esophagus[46], head & neck cancers[47], gastric non-cardia[48], renal cell

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[39] Carlos A. Monteiro et al., *Ultra-processed foods, diet quality and human health*, Food and Agriculture Organization of the United Nations, 2019; Carlos A. Monteiro et al., *UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing*, Public Health Nutr., Jan. 2018.
[40] Carlos A. Monteiro et al., *Ultra-processed foods, diet quality and human health*, Food and Agriculture Organization of the United Nations, 2019.
[41] Thibault Fiolet et al., *Consumption of Ultra-Processed Foods and Cancer Risk*, BMJ, Feb. 2018; Kiara Chang et al., *Ultra Processed Food Consumption, Cancer Risk and Cancer Mortality: a large-scale prospective analysis within the UK Biobank*, EClinicalMedicine, Jan. 2023; Irja M. Isaksen, *Ultra-Processed Food Consumption and Cancer Risk: A systematic review and meta-analysis*, Clin., Jun. 2023.
[42] Thibault Fiolet et al., *Consumption of Ultra-Processed Foods and Cancer Risk*, BMJ, Feb. 2018; Irja M. Isaksen et al., *Ultra-Processed Food Consumption and Cancer Risk: A systematic review and meta-analysis*, Clin., Jun. 2023; Long Shu et al., *Association between ultra-processed food intake and risk of breast cancer: a systematic review and meta-analysis of observational studies*, Front Nutr., Sept. 2023.
[43] Lu Wang et al., *Association of ultra-processed food consumption with colorectal cancer risk among men and women: results from three prospective US cohort studies*, BMJ, Aug. 2022; Long Shu et al., *Association between ultra-processed food intake and risk of colorectal cancer: a systematic review and meta-analysis*, Front Nutr., Jul. 2023; Ying Lian et al., *Association between Ultra Processed Foods and Risk of Cancer: a systematic review and meta-analysis*, Front Nutr., Jun. 2023; Rocío Caceres-Matos et al., *The Influence of Ultra-Processed Food on Colorectal Cancer: A systematic review*, Gastrointest. Disord., Feb. 2024.
[44] Lu Wang et al., *Association of ultra-processed food consumption with colorectal cancer risk among men and women: results from three prospective US cohort studies*, BMJ, Aug. 2022; Nathalie Kliemann et al., *Food Processing and Cancer Risk in Europe: results from the prospective EPIC cohort study*, Lancet Planet Health, Mar. 2023.
[45] Guo-Chao Zhong et al., *Ultra-processed food consumption and the risk of pancreatic cancer in the Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial*, Int J Cancer., Mar. 2023.
[46] Nathalie Kliemann et al., *Food Processing and Cancer Risk in Europe: results from the prospective EPIC cohort study*, Lancet Planet Health, Mar. 2023.
[47] Id.
[48] Id.

carcinoma[49], lung cancer[50], brain cancer[51], diffuse large B-cell lymphoma[52], ovarian cancer[53], cardiovascular disease[54], cerebrovascular disease[55], irritable bowel disease[56], chronic kidney

[49] Id.
[50] Kiara Chang et al., *Ultra Processed Food Consumption, Cancer Risk and Cancer Mortality: a large-scale prospective analysis within the UK Biobank*, EClinicalMedicine, Jan. 2023.
[51] Id.
[52] Id.
[53] Id.
[54] Bernard Srour et al., *Ultra Processed Food Intake and Cardiovascular Disease: prospective cohort study*, BMJ, May 2019; Marialaura Bonaccio et al., *Joint Association of Food Nutritional Profile by Nutri-Score front-of-pack label and ultra-processed food intake with mortality: Moli-Sani prospective cohort study*, BMJ, Aug. 2022; Xuanli Chen et al., *Associations of Ultra Processed Food Consumptoin with Cardiovascular Disease and All-Cause Mortality: Uk Biobank*, Eur J Public Health, Oct. 2022; Mahshid Dehghan et al., *Ultra-processed foods and mortality: analysis from the Prospective Urban and Rural Epidemiology study*, Am J Clin Nutr., Jan. 2023; Marialaura Bonaccio et al., *Ultraprocessed Food Consumption is Associated with All-Cause and CV Mortality in Type 2 Diabetes Independent of Diet Quality: a prospective observational cohort study*, Am J Clin Nutr., Sept. 2023; G. Paglia et al., *Consumption of Ultra-Processed Foods and Health Status: a systematic review and meta-analysis*, Br J Nutr., Feb 2021; Marialaura Bonaccio et al., *Ultra-processed Food Consumption is associated with Increased Risk of All-Cause and Cardiovascular Mortality in the Moli-Sani Study*, Am J Clin Nutr., Feb. 2021; Yang Qu et al., *Ultra-Processed Food Consumption and Risk of Cardiovascular Events: a systemic review and dose-response meta-analysis*, EClinicalMedicine., Feb. 2024.
[55] Bernard Srour et al., *Ultra Processed Food Intake and Cardiovascular Disease: prospective cohort study*, BMJ, May 2019; Marialaura Bonaccio et al., *Joint Association of Food Nutritional Profile by Nutri-Score front-of-pack label and ultra-processed food intake with mortality: Moli-Sani prospective cohort study*, BMJ, Aug. 2022; G. Paglia et al., *Consumption of Ultra-Processed Foods and Health Status: a systematic review and meta-analysis*, Br J Nutr., Feb. 2021; Marialaura Bonaccio et al., *Ultra-processed Food Consumption is associated with Increased Risk of All-Cause and Cardiovascular Mortality in the Moli-Sani Study*, Am J Clin Nutr., Feb. 2021.
[56] Neeraj Narula at al., *Association of Ultra Processed Food Intake with Risk of Inflammatory Bowel Disease: prospective cohort study*, BMJ, Jul. 2021; Laure Schnabel et al., *Association Between Ultra-Processed Food Consumption and Functional Gastrointestinal Disorders: Results From the French NutriNet-Santé Cohort*, Am J Gastroenterol., Aug. 2018; Shanshan Wu et al., *Ultra-Processed Food Consumption and Long-Term Risk of Irritable Bowel Syndrome: A Large-Scale Prospective Cohort Study*, Clin Gastroenterol Hepatol., Jul. 2024.

disease[57], Crohn's disease[58], dementia[59], Alzheimer's disease[60], metabolic syndrome[61], Type 2 Diabetes[62], non-alcoholic fatty liver disease[63], depression[64], anxiety[65] and frailty[66].

66. Importantly, these scientific studies control for nutrient composition of UPF. In other words, the risks caused by UPF are not solely a function of the amount of calories, fat, sugar, salt, carbohydrates, protein or other macronutrients consumed.

67. Instead, UPF ***cause unique health risks***, separate and apart from the nutrient quality of a diet. These risks are further compounded by the poor dietary quality of UPF.

68. The unique health risks of UPF are also exacerbated by the fact that UPF are engineered to be overconsumed.

69. A randomized-controlled trial conducted by the National Institutes of Health meticulously matched the diets of inpatient subjects by nutritional composition, with one group

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[57] Bingjie Xiao et al., *Ultra Processed Food Consumption and the Risk of Incident Chronic Kidney Disease: a Systematic Review & Meta-Analysis of Cohort Studies*, Ren Fail., Feb. 2024.
[58] Neeraj Narula at al., *Association of Ultra Processed Food Intake with Risk of Inflammatory Bowel Disease: prospective cohort study*, BMJ, Jul. 2021; Chun-Han Lo et al., *Ultra-processed foods and risk of Crohn's Disease and Ulcerative Colitis: A Prospective Cohort Study*, Clin Gastroenterol Hepatol., Jun. 2022.
[59] Huiping Li et al., *Association of Ultra processed Food Consumption with Risk of Dementia: A Prospective Cohort Study*, Neurology, Sept. 2022
[60] Id.
[61] Scheine L. Canhada et al., *Ultra-Processed Food Consumption and Increased Metabolic Syndrome in Adults: The ELSA-Brasil*, Diabetes Care., Feb. 2023; Long Shu et al., *Ultra-processed food consumption and increased risk of metabolic syndrome: a systematic review and meta-analysis of observational studies*, Front Nutr., Jun. 2023.
[62] Sajjad Moradi et al., *Ultra Processed Food Consumption and Adult Diabetes Risk: A Systematic Review and Dose-Response Meta Analysis*, Nutrients, Dec. 2021; Felipe M. Delpino et al., *Ultra-processed food and risk of type 2 diabetes: a systematic review and meta-analysis of longitudinal studies*, Int J Epidemiol., Aug. 2022; Zhangling Chen et al., *Ultra-Processed Food Consumption and Risk of Type 2 Diabetes: Three Large Prospective U.S. Cohort Studies*, Diabetes Care., Jul. 2023; María Llavero-Valero et al., *Ultra-processed foods and type 2 diabetes risk in the SUN project: A Prospective Cohort Study* , Clin Nutr., May 2021.
[63] Longgang Zhao et al., *Higher Ultra-Processed Food Intake was Positively Associated with odds of NAFLD in both US Adolescents and Adults*: *A National Study*, Heptaol Commun., Aug. 2023; Longgang Zhao et al., *Higher ultra-processed food intake is associated with adverse liver outcomes a prospective cohort study of UK Biobank participants*, Am J Clin Nutr., Oct. 2023. Yi-Fend Zhang et al., *Association of Ultra-Processed Food Intake with Severe NAFLD*, J. Nurt., Health and Aging, Aug. 2024
[64] Melissa M. Lane et al., *Ultraprocessed Food Consumption and Mental Health: A Systematic Review and Meta-Analysis of Observational Studies*, Nutrients, Jun. 2022.
[65] Id.
[66] Teresa T. Fung et al., *Ultraprocessed foods, unprocessed or minimally processed foods and risk of frailty in a cohort of United States Females*, Am J Clin Nutr., Jul. 2024.

receiving a UPF diet and the other group receiving a nutritionally identical diet of real food.[67] The group receiving the UPF diet consumed over 500 calories more each day and gained approximately a pound each week.[68] By contrast, the group receiving real food lost weight.[69]

70. A second randomized-controlled trial with a similar design confirmed these results, finding that individuals fed an UPF diet consumed 813.5 calories a day and gained an average of 1.2 pounds each week compared to those fed a non-UPF diet.[70]

71. Despite this fact, the health harms caused by UPF are not solely a function of the weight gain they cause either. Like nutrient content, the studies of UPF control for obesity and other confounders, and demonstrate that UPF causes unique risks of serious disease—independent of the weight gain they cause.

72. The risk of Type 2 Diabetes is one of the most robustly studied effects of UPF. Independent researchers throughout the world have determined that the scientific evidence that UPF increase the risk of Type 2 Diabetes is "convincing" and that there is a clear link between UPF and a higher risk of Type 2 Diabetes.[71]

73. There are multiple potential mechanisms by which UPF cause increased health risks.

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[67] Kevin D. Hall et al., *Ultra Processed Diets Cause Excess Calorie Intake and Weigh Gain: An Inpatient Randomized Controlled Trial of Ad Libitum Food Intake*, Cell Metab., Jul. 2019.
[68] Id.
[69] Id.
[70] Shoko Hamano et al., *Ultra-processed foods cause weight gain and increased enerdy intake associated with reduced chewing frequency: a randomized, open-label, crossover study*, Diabetes Obes. Metab., Aug. 2024
[71] Melissa M. Lane et al., *Ultra-Processed Food Exposure and Adverse Health Outcomes, Umbrella Review of Epidemiological Meta-Analyses*, BMJ, Feb. 2024.

74. For example, UPF consumption is associated with oxidative stress, chronic inflammation, alterations of immune signaling, intestinal dysbiosis, and mitochondrial metabolism alterations.[72]

75. Ultra-processing techniques have been linked to the formation of endocrine disruptors and exposure to endocrine disrupting compounds.[73]

76. Additives present in UPF, such as emulsifiers, preservatives, dyes, stabilizers, thickening agents and surfactants have also been shown to cause endocrine disruption.[74]

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[72] Edwin E. Martínez Leo, *Ultra-Processed Diet, Systemic Oxidative Stress, and Breach of Immunologic Tolerance*, Nutrition., July 2021; Carmine Stolfi et al., *Impact of Western Diet and Ultra-Processed Food on the Intestinal Mucus Barrier*, Biomedicines, Jul. 2023; Marta Asensi et al., *Low-Grade Inflammation and Ultra-Processed Foods Consumption: A Review*, Nutrients., Mar. 2023; Akihito Harusato et al., *Dietary Emulsifiers Exacerbate Food Allergy and Colonic Type 2 Immune Response through Microbiota Modulation*, Nutrients., Nov. 2022; Sabrine Naimi et al., *Direct Impact of Commonly Used Dietary Emulsifiers on Human Gut Microbiota,* Microbiome., Mar. 2021; Corbin S C Johnson et al., *Contrasting Effects of Western v. Meditarranean Diets on Monocyte Inflammatory Gene Expression and Social Behavior in a Primate Model*, eLife., Aug. 2021; Amanda Cuevas-Sierra et al., *Gut Microbiota Differences According to Ultra-Processed Food Consumption in a Spanish Population*, Nutrients., Aug. 2021; Emilie Viennois et al., *Dietary Emulsifiers Directly Impact Adherent-Invasive E. Coli Gene Expression to Drive Chronic Intestinal inflammation*, Cell Rep., Oct. 2020; Eloi Chazelas et al., *Food Additives: Distribution and Co-Occurrence in 126,00 food products of the French Market*, Sci Rep., Mar. 2020; Emilie Viennois et al., *Dietary Emulsifier-Induced Low-Grade Inflammation Promotes Colon Carcinogenesis*, Cancer Res., Jan. 2017; Sareh Edalti et al., *Higher Ultra Processed Food Intake is Associated with Higher DNA Damage in Healthy Adolescents*, Br J Nutr., Mar. 2021; Maria Magdalena Quetglas-Llabres et al., *Oxidative Stress and Inflammatory Biomarkers are related to High Intake of Ultra-Processed Food in Old Adults with Metabolic Syndrome*, Antioxidants (Basel), Jul. 2023; Lisaura Maldonados-Pereira et al., *Oxidative Status of Ultra Processed Foods in the Western Diet*, Nutrients., Nov 2023; Bernard Srour et al., *Ultra Processed Foods and Human Health, from epidemiological evidence to mechanistic insights*, Lancet Gastroenterol Hepatol., Dec. 2022; Oren Contreras-Rodriguez et al., *Consumption of Ultra-Processed Foods is associated with depression, mesocorticolimbic volume, and inflammation*, J Affect Disord., Aug. 2023; Eva Vissers et al., *Ultra Procesed Foods as a possible culprit for the rising prevalence of inflammatory bowel diseases*, Front Med (Luasanne), Nov. 2022; Filippa Juul et al., *Ultra Processed Foods and Cardiovascular Diseases: Potential Mechanisms of Action*, Adv Nutr., Oct. 2021; Serena Coppola et al., *Increased Dietary Intake of Ultraprocessed Foods and Mitochondrial Metabolism Alteration in Pediatric Obesity*, Sci Rep., Aug. 2023.

[73] Constanze Stiefel et al., *Endocrine Active and Endocrine Disrupting Compounds in Food*, NFS Journal, Jun. 2023; Eurídice Steele et al., *Association between Dietary Share of Ultra-Processed Foods and Urinary Concentrations of Phytoestrogens in US,* Nutrients., Feb. 2017; Nathalie Kliemann et al., *Ultra-Processed Foods and Cancer Risk: from global food systems to individual exposures and mechanisms*, BJC, Mar. 2022.

[74] Constanze Stiefel et al., *Endocrine Active and Endocrine Disrupting Compounds in Food*, NFS Journal, Jun. 2023; Eloi Chazelas et al., *Food Additives: Distribution and Co-Occurrence in 126,00 food products of the French Market*, Sci Rep., Mar. 2020; Hai-Tao Gao et al., *Food Emulsifier Glycerin Monostearate Increases Internal Exposure Levels of Six Priority Controlled Phthalate Esters and Exacerbates their male reproductive toxicities in rats*, PLoS One., Aug. 2016; Beatrice Dufrusine et al., *Influence on Food Emulsifiers on Cellular Function and Inflammation*, Front Nutr., Aug. 2023; Delphine Franssen & Anne-Simone Parent, *Emulsifiers during Gestation, the risks of ultra processed food revealed in mice*, PLoS Biol., Aug. 2023; Bernard Srour et al., *Ultra Processed Foods and Human Health, from epidemiological evidence to mechanistic insights*, Lancet Gastroenterol Hepatol., Dec. 2022.

77. Exposure to endocrine disruptors in UPF has also been shown to occur as a result of leachate from food packaging materials, including chemicals such as Bisphenol A (BPA), Phthalates, PFAS, and organophosphate ethers.[75]

78. Phosphate-containing additives can also disrupt the endocrine system and hormonal regulation of nutrients.[76]

79. Additives can directly modulate the composition and function of intestinal microbiota, driving microbioata encroachment and chronic intestinal inflammation, thus exacerbating metabolic dysfunction.[77]

80. Additives induce intestinal microbiota dysbiosis, which stimulates pro-inflammatory signaling, and can predispose people to several diseases such as hypertension, obesity, diabetes and other cardiometabolic disorders.[78]

81. Inflammatory signaling can induce metabolic diseases such as Type 2 Diabetes by desensitizing insulin receptor signaling.[79]

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[75] Eurídice Martínez Steele et al., *Association between Dietary Contribution of Ultra-Processed Foods and Urinary Concentrations of Phthalates and Bisphenol in a nationally representative sample of the US population aged 6 years and older*, PLos One., Jul. 2020; Jessie P. Buckley et al., *Ultra Processed Food Consumption and Exposure to Phthalates and Bisphenols in the US National Health and Nutrition Examination Survey, 2013-2014*, Environ Int., Oct. 2019; Irfan A. Rather et al., *Sources of Chemical Contaminants in Food and Their Health Implications*, Front Pharmacol., Nov. 2017; Nathalie Kliemann et al., *Ultra-Processed Foods and Cancer Risk: from global food systems to individual exposures and mechanisms*, BJC, Mar. 2022; Ksenia J. Groh et al., *Overview of Intentionally Used Food Contact Chemicals and their Hazards*, Environ Int., May 2021; Muncke 2020. *Endocrine disrupting chemicals and other substances of concern in food contact materials: An updated review of exposure, effect and risk assessment*; Constanze Stiefel et al., *Endocrine Active and Endocrine Disrupting Compounds in Food*, NFS Journal, Jun. 2023; Hyunju Kim et al., *Urinary organophosphate ester concentrations in relation to ultra-processed food consumption in the general US population*, Environ Res., Mar. 2020; Bernard Srour et al., *Ultra Processed Foods and Human Health, from epidemiological evidence to mechanistic insights*, Lancet Gastroenterol Hepatol., Dec. 2022.

[76] Mona S. Calvo et al., *Industrial Use of Phosphate Food Additives: A Mechanism Linking Ultra-Processed Food Intake to Cardiorenal Disease Risk?*, Nutrients, Aug. 2023.

[77] Clara Salame et al., *Food Additive Emulsifiers and the Risk of Type 2 Diabetes: Analysis of data from the NutriNet-Sante prospective cohort study*, Lancet Diabetes Endocrinol., May 2024.

[78] Id.

[79] Id.

82. Dysbiosis induced by chronic exposure to additives can drive chronic intestinal as well as systemic inflammation, which can affect other organs.[80]

83. The presence of chronic inflammation disrupts the homeostatic balance, altering the crosstalk between immune and metabolic responses and promoting chronic metabolic inflammation.[81]

84. The resulting immune cell infiltration and secretion of inflammatory cytokines into the tissue environment can inhibit glucose uptake and alter lipid metabolism.[82] This increases the risk of noncommunicable diseases such as cancer, diabetes, and cardiovascular disease.[83]

85. Research has also suggested that nutrient concentrations in natural foods share universal structures rooted in the nature of biochemical processes governing nutrient synthesis and regulation.[84]

86. Ultra-processing disrupts this nutrient balance that humans are genetically adapted to, and the human metabolism may not be able to properly process nutrient distributions that substantially deviate from the natural range and structure observed in natural foods.[85] Research has indicated that the destruction of natural food structures, also known as the "food matrix", affects satiety and glycemic response.[86]

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[80] Id.
[81] Marta Asensi et al., *Low-Grade Inflammation and Ultra-Processed Foods Consumption: A Review*, Nutrients., Mar. 2023.
[82] Id.
[83] Id.
[84] Guilia Menichetti & Albert-László Barabási, *Nutrient Concentrations in Food Display Universal Behavior*, Nature Food, May 2022.
[85] Id.
[86] Anthony Fardet, *Minimally processed foods are more satiating and less hyperglycemic than ultra-processed foods: a preliminary study with 98 ready-to-eat foods*, Food Funct., May 2016; Anthony Fardet & Edmond Rock, *Reductionist Nutrition Research has Meaning Only within the Framework of Holistic and Ethical Thinking*, Adv Nutr., Nov. 2018; Anthony Fardet et al., *Beyond nutrient-based food indices: a data mining approach to search for a quantitative holistic index reflecting the degree of food processing and including physicochemical properties*, Food Funct., Jan. 2018.

87. All of these harmful effects occur as a result of ultra-processing itself, and do not rely on nutrient content to cause harm. The poor nutrient balance common in UPF further exacerbates these ill effects, but does not cause them.

c. UPF is Inextricably Intertwined with Big Tobacco

88. Early attempts at ultra-processing arose around the World Wars of the early 20th Century, in efforts to respond to war-time shortages. These projects included efforts to create artificial sweeteners from coal tar and Nazi German efforts to create butter substitutes from coal wastes.[87]

89. While a small amount of novel UPF entered the domestic food market in the 1950's, 1960's, and 1970's, the US food environment was dominated by traditional food during that timeframe. As an indicator of this, in 1980, only 13% of U.S. homes had microwave ovens.[88]

90. Before the 1970's, the food environment in the USA was largely supplied by smaller, local food producers and regional companies.[89] However, in the 1970's and 1980's, larger food companies began controlling the food environment by absorbing smaller food producers and centralizing and increasing the amount of food processing and distribution efforts.[90]

91. The "Big Tobacco" companies RJ Reynolds and Philip Morris were leaders in this market shift.[91]

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[87] Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 69-73, 90-92, (2023); *Butter is Made by Germans from Coal*, Eagle Valley Enterprise, September 6, 1946; *Made Butter from Coal in Germany*, Brisbane Courier-Mail, August 8, 1946; Elke Maier, *Coal—in Liquid Form*, MaxPlanckResearch, Apr. 2016.
[88] James E. Fay & Lana Douglas, *R.J. Reynolds Tobacco Non-Industry Marketing Learning, New Brand Task Force, Project INFINITY*, Delta Research, Jan. 1991.
[89] Tena L. Fazzino, *The Reinforcing Natures of Hyper Palatable Foods: Behavioral Evidence for Their Reinforcing Properties and the Role of the US Food Industry in Promoting Their Availability*, Current Addiction Rprts., May 2022.
[90] Id.
[91] Id.

92. RJ Reynolds first entered the food market in the early 1960's with its acquisition of Hawaiian Punch. In a 1962 internal memo, RJ Reynold's Head of Biochemical Research encouraged the company to enter the field of artificial foods, flavors and fragrances, writing:

> "It is easy to characterize R.J. Reynolds merely as a tobacco company. In a broader and much less restricting sense however, R.J. Reynolds is in the flavor business. This flavor business will be greatly expanded by the addition of the soft drink line presently in an advanced development stage…
>
> Meanwhile our interests in non-tobacco areas are developing. It is probable that many flavorants for tobacco will be useful in food, beverage and other products. If we become a basic producer of tobacco flavorants, we will have started to become a basic producer in the general flavor industry…
>
> The market for synthetic flavoring agents will greatly expand during the next 20-25 years. If R.J. Reynolds were to establish a position in this field now, it would realize large financial returns from these developments."[92]

93. Over the ensuing 15 years, RJ Reynolds acquired a number of food companies, and by 1979 was boasting of being a "major force in worldwide consumer packaged goods with strong positions in tobacco and foods".[93]

94. In 1985, RJ Reynolds purchased Nabisco for $4.9 billion and merged it with Del Monte and the other food and beverage brands it had previously acquired throughout the 1960's and 1970's.[94] In order to help finance the acquisition of Nabisco, R.J Reynolds sold Kentucky Fried Chicken to PepsiCo for $850 million.[95]

95. This acquisition cemented RJ Reynolds as a tobacco-food behemoth. A 1988 interoffice memorandum boasted:

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[92] Interoffice Memo, Eldon D. Nielson, Kenneth H. Hoover et al., (Oct. 4, 1962).
[93] RJR Foods, Inc. *Fact Sheet*, Mar. 1978; *R.J Reynolds Industry 1979 Annual Report*, R.J. Reynolds Tobacco Company, 1979.
[94] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023; Todd Purdum, *R.J. Reynolds Set to Pay $4.9 Billion in Bid for Nabisco*, N.Y. Times, June 3, 1985.
[95] Richard Stevenson, *PepsiCo to Acquire Kentucky Fried*, N.Y. Times, July 25, 1986. https://www.nytimes.com/1986/07/25/business/pepsico-to-acquire-kentucky-fried.html

> "We process over 243,000 metric tons of tobacco leaf in the production and licensing of almost 300 billion cigarettes annually throughout the world…
>
> Our domination of the cookie and cracker business is even more obvious…in snack crackers, we are the market."[96]

96. A Philip Morris market intelligence report at the time noted that R.J. Reynolds had achieved "critical mass in the dry grocery business" and that "R.J. Reynolds' presence in virtually all aisles of the grocery store permits cross merchandising of brands in different sections of the store and different packaging forms".[97]

97. In 1985, Philip Morris joined the market as well—purchasing General Foods for $5.6 Billion.[98] Philip Morris then purchased Kraft Inc. for $12.9 billion in 1988, making the combined tobacco-food company the world's largest food business and the world's largest consumer products company.[99]

98. Shortly after the acquisition and merger of Kraft, a Philip Morris executive explained:

> In the U.S. home market, Kraft General Foods is the largest food company overall and is #1 in all of the major retail grocery channels—dry grocery, refrigerated and frozen. It is also the second largest player in foodservice distribution.
>
> Both companies bring strong brand franchises to the combination, and KGF will, we think, account for something like 18 of the top 50 grocery store brands.[100]

99. Philip Morris' CEO stated that "Today, with the acquisition of Kraft, we manufacture and market more than 3000 food, beverage and tobacco products".[101] Around the

[96] Interoffice Memo, Huntley R. Whitacre, Edward A. Horrigan Jr. et al., (Aug. 9, 1988).
[97] R. D. Sherrod, *Marketing Intelligence Report*, Mar. 1985.
[98] *Philip Morris Agrees to Buy General Foods*, Chicago Tribune, Sept. 28, 1985.
[99] *It's All Over: Philip Morris is New Owner of Kraft*, Chicago Tribune, Dec. 9, 1988.
[100] Hans G. Storr & Michael A. Miles, *Consumer Analysts Presentation*, Philip Morris Companies Inc., Feb.1989.
[101] Hamish Maxwell, *Keynote Remarks by Hamish Maxwell to Philip Morris Legal Conference*, Apr. 1989.

same time, another Philip Morris executive boasted "You can now have a complete meal of Philip Morris foods and beverages, followed, of course, by one of our cigarettes".[102]

100. The combined company dominated the market in 20 food categories, had 32 food brands that exceeded $100 million in sales.[103]

101. Philip Morris conquered even more of the U.S. food market in 2000, when it acquired R.J. Reynolds' former food business for $18.9 billion.[104] It integrated and merged the R.J. Reynolds food companies with its own, creating a company with 73 brands exceeding $100 million in sales.[105]

102. Collectively, the Big Tobacco companies dominated the U.S. food environment for decades. Defendants Kraft Heinz, Mondelez, Post Holdings are direct descendants of Philip Morris and/or R.J. Reynolds.

II. Fruits of the Poisonous Tree—Big Tobacco Infects our Food Environment

A. Turning our Food into Cigarettes: Big Tobacco Used Cigarette Addiction Science to Develop UPF, and Hack the Human Brain

103. Big Tobacco's conquest of the U.S. food environment was much more than a coincidental by-product of diversification. Instead, as explained by Philip Morris' Director of Applied Research, the purpose of these acquisitions was for the Big Tobacco companies "to control all of the pleasure drugs that are not regulated".[106]

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[102] Dr. K.S. Houghton, *State of the Union Speech*, Mar. 1989
[103] Marc Cohen & Nomi Ghez, *Philip Morris Companies An In-Depth Analysis of Kraft*, Goldman Sachs U.S. Research, Apr. 1995.
[104] *Philip Morris to Acquire Nabisco*, South Florida Sun Sentinel, Jun. 26, 2000.
[105] *Philip Morris Acquires Nabisco for $55 per Share in Cash and Plans for IPO of Kraft*, Newsbreak Extra!, Jun. 25, 2000.
[106] Patricia Callahan et al., Patricia Callahan et al., *Where there's smoke, there might be food research, too,* Chicago Tribune, Jan. 29, 2006.

104. RJ Reynolds and Philip Morris did not operate their food companies as wholly independent entities, but instead rapidly integrated them into the pre-existing Tobacco companies.

105. As a result, there was a systematic transfer of people, knowledge, information and technologies from Big Tobacco to the Food & Beverage Industry in the 1980's, 1990's and 2000's.[107]

106. RJ Reynolds' Biochemical & Biobehavioral R&D Group coordinated design of new cigarette and food formulations, including analyses of flavors and additives that could be used in tobacco and food products, and biological activity resulting from consuming such products.[108]

107. Although this group became involved in the design and assessment of UPF, the original purpose of RJ Reynolds' Biochemical & Biobehavioral Group was to generate "information on the biochemical and biobehavioral aspects of tobacco use. This information creates a corporate advantage through usage in product design".[109]

108. To put this into plainer English, the goal of RJ Reynolds' Biochemical & Biobehavioral group was to understand the addictive qualities of its cigarettes, and use this knowledge to design more addictive products.

109. RJ Reynolds spent hundreds of millions of dollars a year on research and development "opportunities affecting cigarettes and food".[110] These included biobehavioral research into electrical responses of the trigeminal nerve in rats, the "biological bases of the

[107] Virginia Gewin, *New Archive Reveals How the Food Industry Mimics Big Tobacco to Suppress Science, Shape Public Opinion*, Nov. 28, 2018.
[108] *1987 Second Quarter Project Status*, Secret Biochemical/Biobehavioral R&D Report, Jun. 1987
[109] F.H. Christopher Jr., *Secret Research and Development 1988-1990 Strategic Plan*, R.J. Reynolds Tobaco Company, Oct. 1987.
[110] Interoffice Memo, Huntley R. Whitacre, Edward A. Horrigan Jr. et al., (Aug. 9, 1988).

responses of humans to inhaled chemicals", the "structural requirements for the perception of both bitter and sweet", and "detailed analysis of the effects of partial removal of salivary glands on eating and drinking behavior".[111]

110. Philip Morris organized the Philip Morris Companies Technical Synergy Group to disseminate formulation and marketing research to its food companies.[112]

111. Research and technology was coordinated through Philip Morris' "Worldwide Operations and Technology" organization to ensure "that world class research and development, quality assurance and science are available and applied globally to Phillip Morris USA ("PM USA"), the tobacco operations of Phillip Morris International ("PMI") and the domestic and international food operations of Kraft Foods, Inc."[113]

112. Philip Morris held formal synergy meetings to coordinate formulation and marketing research across subsidiaries, including brain-research on sensory perceptions and artificial intelligence models designed to drive consumer behavior.[114]

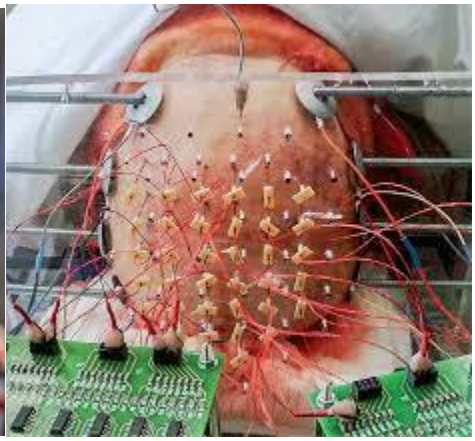
113. Philip Morris scientists studying nicotine's impact on the brain regularly collaborated with Kraft and General Foods.[115]

114. For example, Dr. Frank Gullotta was a Philip Morris brain scientist who supervised a secret Philip Morris addiction laboratory in Germany.[116] Gullotta's research included using electrodes on human scalps to understand the impact of nicotine consumption on

[111] *Research and Development 1988 Year-End Status Report*, RJR Confidential, 1988.
[112] *Appendix A R&D 1991 Accomplishments*, PM USA, 1991.
[113] Philip Morris 5 Year Plan, 1996.
[114] Kim H. Nguyen, *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, March 2019; Delroy Alexander et al, *Craving the cookie,* Chicago Tribune, Aug. 21, 2005; *Appendix A R&D 1991 Accomplishments*, PM USA, 1991; *The Role of Technology in Understanding the Consumer*, Philip Morris Product Development Symposium, Dec. 1990.
[115] Delroy Alexander et al, *Craving the cookie,* Chicago Tribune, Aug. 21, 2005.
[116] Patricia Callahan et al., *Where there's smoke, there might be food research, too,* Chicago Tribune, Jan. 29, 2006.

the human brain.[117] He became integrated in the company's food operations after the acquisition of General Foods and Kraft.[118]



115. Gullotta noted in 1990 that "an understanding of the chemical senses is critical in developing new products. Recently, interest in our studies has been expressed by Kraft USA and G.F. USA".[119]

116. Gullotta collaborated with Dr. Pamela Scott-Johnson, a physiological psychologist and Senior Research Scientist in the Taste Fundamentals program.[120] She studied the

[117] Delroy Alexander et al., *Craving the cookie*, Chicago Tribune, Aug. 21, 2005.
[118] *Appendix A R&D 1991 Accomplishments*, PM USA, 1991; Patricia Callahan et al., *Where there's smoke, there might be food research, too,* Chicago Tribune, Jan. 29, 2006.
[119] Interoffice Memo, F. P. Gullota et al., C. K. Ellis, (Nov. 8, 1990); Patricia Callahan et al., *Where there's smoke, there might be food research, too,* Chicago Tribune, Jan. 29, 2006.
[120] Interoffice Memo, C. S. Hayes, R. D. Kisner, (Mar. 26, 1991).

fundamental mechanisms involved in the perception of taste, and included using "Brain Wave computer system" on live rats to see how nerves transmit messages relating to various fats and fat substitutes.[121]

117. While this research initially focused on the electrophysiological responses of the chorda tympani nerve to various fats, Gullotta recommended this "be extended to also investigate the vagus, glossopharyngeal and trigeminal nerve responses to tastants that would be of mutual benefit to" Philip Morris and Kraft General Foods.[122]

118. Philip Morris and Kraft's chemical senses program collaborated on "gustatory electrophysiology" and designed collaborative studies of mutual interest to the cigarette and food

[121] Id.
[122] Id.

operations.[123] Gullotta also educated company food scientists on "The Use of Nasal Event-Related Potentials in Flavor Evaluation".[124]

119. Dr. James Andrade was a physiological psychologist who would rise to become one of Kraft's top research executives.[125] He conducted research into human perception of tastes, smells, cognitive and behavioral factors, as well as how opiate receptors in the brain mediate the hunger drive.[126]

120. Philip Morris and Kraft General Foods collaborated on research into the "molecular basis for odor/flavor recognition" and "molecular, cellular and organ-related signal transduction".

121. A confidential internal memo explained the rationale: "Many consumer attributes of our products manifest themselves via response to the chemical stimuli (flavors, odors, textural components, etc.) in these products. The biological interpretation (i.e. modulation/transduction) of these stimuli (i.e. signals) share common pathways critical for normal human performance".[127]

122. The reason for these collaborations was clear. In a meeting discussing chemosensory and electrophysiology research collaborations between cigarettes and UPF divisions, Philip Morris' Director of Consumer Research explained:

> "When we talk in terms of what we are selling the consumer we don't talk in terms of cigarettes. We talk in terms of benefits. We talk in terms of effects. What does somebody get when he smokes a cigarette? A tube that's white on one end and cork on the other in a lot of cases you set fire to. Well nobody is going to pay money for that. What they pay money for is what they get out of it. They need some satisfaction and whatever else that they do. Now that certainly doesn't limit it to cigarettes. But in order to figure out intelligently what products could be offered that may appeal to a larger group than just smokers, i.e. products that don't offer the perceived negatives to a nonsmoker of a

[123] Interoffice Memo, F. P. Gullotta, Dr. R. A Carchman, (Mar. 22, 1991).
[124] Interoffice Memo, F. P Gullotta, R. D. Kisner, (Oct. 22, 1991).
[125] Delroy Alexander et al, *Craving the cookie*, Chicago Tribune, Aug. 21, 2005.
[126] Delroy Alexander et al, *Craving the cookie*, Chicago Tribune, Aug. 21, 2005; Interoffice Memo, C. S. Hayes, R. D. Kisner, (Mar. 26, 1991).
[127] *Philip Morris Institute Proposal*, Philip Morris Technical Synergy Group, Apr. 1993.

cigarette but still provide some of the benefits that smokers can enjoy. I think we have to understand just how this works"[128]

123. Philip Morris understood that "Since consumer products represent an extracellular 'stimulus' to the consumer and the objective of this research endeavor is to optimize the 'response' of our products on the consumer, the stimulus-response mechanism is an obvious area of focus. The stimulus-response area, also called signal transduction, relates to the mechanism by which extracellular stimuli elicit both transitory and lasting responses or effects".[129]

124. But Philip Morris also understood that conscious perceptions of human senses were not the key to maximum profits for Philip Morris products.

125. As Frank Gullotta explained about the senses of taste, smell and touch, "none of these matter a didley if you don't have the effects in the brain. These are only pleasurable because of the consequences" in the brain.[130]

126. In other words, the purpose of all this research on brain waves and nerve conduction was not to determine how to make UPF more flavorful. Big Tobacco conducted this research to understand how to hack the physiological structures of the human brain, and override the body's natural mechanisms for resisting UPF.[131]

127. As a clear example of this, Philip Morris & Kraft conducted joint research into "drivers of acceptance, mood or satiety/drinkability" that "are usually not consciously perceived…but are perceived at the receptor level (ex. Pheromones)".[132] This research was identified as "of common interest to beer, food and tobacco".[133]

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[128] *Appendix A Chemical Senses Symposium, Meeting Minutes*, Apr. 1990.
[129] *Philip Morris Institute Proposal*, Philip Morris Technical Synergy Group, Apr. 1993.
[130] *Appendix A Chemical Senses Symposium, Meeting Minutes*, Apr. 1990.
[131] Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 151-171, (2023); Robert Lustig, The Hacking of the American Mind, (2017).
[132] Interoffice Memo, Chemoreception Research, (Feb. 12, 1998).
[133] Id.

128. Kraft and Philip Morris scientists applied their combined expertise in brain science and sensory transduction to develop UPF products.[134] Their research was used to shape people's perception of hunger and fullness, known as satiety, in order to promote overconsumption of their UPF products.[135]

129. Kraft and Philip Morris jointly used "neuroimaging (understanding how olfaction and gustatory information is coded—identify receptor subtypes)" and technologies relating to chemoreception and transduction, genetics and molecular biology, and molecular imprinting polymers.[136] This research was used in UPF product formulation and in the creation of "designer odors and flavors" and the "production of novel aroma compounds".[137]

130. These and similar technologies and research were broadly applied to product formulation in Philip Morris' UPF division, which later became defendants Kraft Heinz, Mondelez and Post Holdings. Knowledge of the brain's physiological functions was used to hack the human brain, and to formulate UPF products that could evade people's bodily mechanisms for controlling intake.

131. UPF products also directly incorporated tobacco additives in their formulations. For example, RJ Reynolds used the company's tobacco flavour library to create beverage formulas "starting from our knowledge of flavours we already produce or have in our flavour library".[138] The stated goal "is to leave people wanting more".[139]

132. On information and belief, Defendants Kraft Heinz, Mondelez and Post Holdings continue to engage in these formulation strategies.

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[134] Delroy Alexander et al, *Craving the cookie*, Chicago Tribune, Aug. 21, 2005.
[135] Id.
[136] Interoffice Memo, Arthur Anderson, Phillip Morris Technology Synergy Team, (Oct. 2, 1997).
[137] Id.
[138] Kim H. Nguyen et al., *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019; Charles Milton, Monthly Research Report: Technical Development Division RJ Reynolds, 1962 No. 5
[139] Kim H. Nguyen et al., *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.

B. Big Tobacco's Addiction Science Permeates the rest of the UPF Industry

133. As market leaders, Big Tobacco quickly spread this research and formulation strategy throughout the UPF industry, and such strategies are now prevalent.

134. For example, since at least the early 2000's, defendant Nestle has spent millions of dollars a year on research to understand sensory perception, i.e. "How do we smell, taste and see food".[140] In 2007, Nestle identified "sensory evaluation" as "an increasingly important field of study" and conducted research into this with both external partners and internal research divisions such as the "Sensory Science Group".[141]

135. Nestle currently employs numerous sensory psychologists to study issues relating to brain activity, including the use of electroencephalography, and "taste development, perception and food preference in young children".[142] Nestle has even begun using consumer DNA and artificial intelligence to formulate new products.[143]

136. Defendant PepsiCo operates one global R&D organization to develop new product formulations and conducts extensive research into human biology, sensory chemoreception and physiological responses in the brain.[144] For example, PepsiCo utilizes functional magnetic resonance imaging (fMRI), a neuroimaging technique that measures human brain activity by detecting changes in blood flow, to guide product formulation design.[145]

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[140] Stephen Daniells, *Nestlé teams up with EPFL for food-brain research*, Bakery & Snacks, (Last updated Jul. 2008).
[141] Albert Pfiffer & Hans-Jörg Renk, *Transformational Challenge 1990-2005*, 2007.
[142] Nestlé, *Consumers find an unfamiliar taste more enjoyable after looking at food that appeals to them*, Mar. 2012; Catherine Forestell, *Video Teaser: Taste development, Perception and Food preference in Young Children*, Nestlé Nutrition Institute, Nov. 2021.
[143] Gill Hyslop, *Pizza to ward off Alzheimer's? Nestle uses DNA to create personalized diets*, Bakery & Snacks, Sep. 4, 2018.
[144] Austin Kzoman, PepsiCo Global R&D; Stephen A. Gravina et al., *Human Biology of Taste*, ASM, May 2013.
[145] John Seabrook, "Snacks for a Fat Planet". The New Yorker, May 9, 2011.

PepsiCo also uses robots fitted with human taste buds that are hardwired into a computer to simulate human neurochemical responses to product formulations.[146]

137. Defendant Coca-Cola employs "subject matter experts in the area of taste biology" and scientists studying "taste and odor perception, from detection by receptors in the oral and retronasal cavities, to signal transduction to the taste cortex in the brain where signals are processed…to ultimately contribute to the building flavor knowledge and capability for The Company".[147]

138. Similarly, defendant Conagra is "using brain science…to grow and expand brand and portfolio offerings".[148]

139. Defendant General Mills maintains a large technical center with numerous sensory labs, and employs sensory scientists "to guide the optimization of new products, product improvements" and product design.[149]

140. Defendant Kellogg's utilizes "the cognitive neuroscience approach to the multisensory design (and modification) of their food products, and maintains numerous laboratories focusing on "sensory science".[150]

141. Defendant Mars maintains an Advanced Research Institute focusing on the "combination of chemistry, biology and psychology…to understand the complex interplay between the chemical composition of food and the sensory perceptions it generates".[151]

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[146] Id.
[147] *Taste and Olfaction Research Senior Scientist-R&D*, Coca Cola, (Visited Apr. 2024).
[148] Jacobson/Rost, *Bringing Classic Brands into the New Economy*, (Last updated 2022), https://www.jacobsonrost.com/work/conagra#:~:text=Bringing%20classic%20brands%20into%20the,expand%20brand%20and%20portfolio%20offerings.
[149] *Sensory Scientist--R&D*, General Mills, (Visited Apr. 2024); Bill Zalud, *Managing in Tough Times*, Security Magazine, March 1, 2009.
[150] Charles Spence, *Eating with Our Ears: Assessing the Importance of the Sounds of Consumption on our Perception and Enjoyment of Multisensory Flavour Experiences*, Flavour, Dec. 2015; Joanne O'Dea, *Kellogg's Food Science Lab Opens at Leuven Facility*, Science Business, Sep. 13, 2013.
[151] Mars, *The Science of Deliciousness: Dr. John Didzbalis creates flavor for a…*, May 3, 2023.

142. These few examples demonstrate how widespread Big Tobacco's brain hacking strategies have become in the UPF industry, but do not constitute the entirety of the UPF industry's efforts in this area. Additional details will be uncovered through discovery and presented at trial.

143. In addition to the defendants' internal capacities, as demonstrated by the examples above, defendants have engaged third party research firms to conduct brain research to guide the development of new products.

144. For example, the Monell Chemical Senses Center, which employs chemists, biochemists, physiologists and psychologists conducting stimuli/response research on human senses and "the essential mechanisms and functions of…taste and smell", has counted defendants Coca-Cola, Kraft Heinz, Mars, Nestle, and PepsiCo, as corporate partners.[152]

145. On information and belief, all Defendants have utilized both internal scientists and third party research partners to assess physiological mechanisms of food reward activity.

146. The purpose of defendants' brain research is to understand how to hack the physiological structures of the human brain, and override the body's natural mechanisms for resisting UPF.[153]

147. The goal of these efforts is not to make UPF more flavorful—and certainly not to make UPF healthier. The only goal is to make UPF more profitable by driving consumption in ever increasing volumes.

[152] *Corporate Partnership Program*, Monell Chemical Senses Center, (Visited Oct. 2023).
[153] Robert Lustig, The Hacking of the American Mind, (2017); Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 151-171, (2023).

148. Defendants' knowledge of the brain's physiological functions was used to hack the human brain, and formulate UPF products that could evade people's mechanisms for controlling intake.

III. UPF are Addictive Substances

A. UPF Change Brain Chemistry and Neurocircuitry in the Same Ways as Addictive Drugs

149. The UPF industry has spent millions of dollars to figure out how to hack the human brain and the physiological hardware used to transmit messages throughout the human body.

150. Defendants' efforts have had predictable and intended consequences: UPF are addictive substances.

151. Recent studies provide compelling evidence that UPF drive neurobiological and behavioral changes in the same ways as addictive drugs.[154]

152. Strong biological evidence for the addictiveness of UPF comes from neuroimaging studies that show UPF trigger similar reward-related neural responses as other addictive substances such as cocaine and cigarettes.[155] UPF, cigarettes and cocaine all trigger dopaminergic reward signaling dysfunction, emotion dysregulation and impulsivity.[156]

153. UPF have consistently been widely associated with elevated responses in brain regions related to desire and reward, such as the dorsal striatum, nucleus accumbens ("NAc"), and orbitofrontal cortex.[157]

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[154] Erica M. Schulte et al., *Advances in the Neurobiology of Food Addiction*, Curr. Behav. Neurosci. Rep., Dec. 2021.
[155] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., June 2024.
[156] Erica M. Schulte et al., *Advances in the Neurobiology of Food Addiction*, Curr. Behav. Neurosci. Rep., Dec. 2021.
[157] Id.

154. These patterns of neural activation occur in drug abusers and are associated with elevated cravings and overconsumption of UPF, cocaine and cigarettes.[158]

155. UPF triggers rapid upregulation in calcium permeable AMPA receptors in the NAc, which is characteristic of addictive substances and associated with increased cue-induced craving and drug-seeking behavior.[159]

156. Prolonged exposure to UPF causes reduced excitability of NAc core neurons, which is indicative of altered dopaminergic reward responses and similarly occurs with chronic cocaine exposure.[160]

157. Similarly, naltrexone, which is used to treat opioid use disorder, and pexacerfont, which is used to treat heroin addiction and methamphetamine addiction, are effective in reducing addiction to UPF.[161] This suggests that UPF cravings are mediated through endogenous opioid peptide tone and the prefrontal cortex.[162]

158. High levels of UPF intake are associated with disrupted dopaminergic signaling (increased hedonic drive for UPFs), dysregulated hunger/satiety hormones (increased hunger, reduced satiety) and other alterations to the gut microbiome.[163]

159. Less processed foods are not addictive, and do not trigger these brain and physiological responses.[164]

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[158] Id.
[159] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., June 2024.
[160] Id.
[161] Id.
[162] Robert H. Lustig, *Ultraprocessed Food: Addictive, Toxic, and Ready for Regulation*, Nutrients., November 2020.
[163] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[164] Erica M. Schulte et al., *Advances in the Neurobiology of Food Addiction*, Curr. Behav. Neurosci. Rep., December 2021.

160. This research provides "convincing support for the direct and unique role" that UPFs have in promoting overconsumption through their ability to alter the brain-gut microbiome axis in a manner that increases craving and motivating continued UPF intake.[165]

B. UPF are Addictive Based on the U.S. Surgeon General's Criteria for Addictiveness

161. UPF are also addictive based on the criteria used by the U.S. Surgeon General to determine tobacco products are addictive.[166]

162. Historically, the addiction label was mostly applied to substances such as alcohol and heroin that clearly caused mind-altering intoxication and adverse physical symptoms with withdrawal.[167]

163. Tobacco presented a challenge to this conceptualization of addiction, because it results in no apparent intoxication syndrome and only mild physical withdrawal symptoms.[168] People can effectively go about their day fulfilling necessary obligations while having nicotine delivered rapidly to the brain through cigarettes.[169] Because of this, the notion that tobacco could be considered an addictive substance remained highly controversial for decades.[170]

164. Despite the differences between tobacco and other addictive drugs, there is now scientific consensus that tobacco is a highly addictive substance, based in large part on the U.S. Surgeon General's findings.[171]

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[165] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun, 2024.
[166] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[167] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[168] Id.
[169] Id.
[170] Id.
[171] Id.

165. In 1988, the U.S. Surgeon General issued a report identifying tobacco products as addictive based on three primary scientific criteria: their ability to (1) cause highly controlled or compulsive use; (2) cause psychoactive (i.e. mood-altering) effects via their effect on the brain; and (3) reinforce behavior.[172] Scientific advances have since identified the ability of tobacco products to (4) trigger strong urges or craving as another important indicator of addictive potential.[173]

166. Like tobacco, UPF do not trigger intoxication and do not cause life-threatening physical withdrawal symptoms, but people are prone to compulsively consume them even in the face of significant negative consequences.[174] Thus, the reconceptualization of addiction triggered by tobacco is appropriate for evaluating the addictiveness of UPF.[175]

167. UPF meet the same criteria used by the Surgeon General, and can be labeled as addictive substances using the standards set for tobacco products.[176]

i. *UPF Cause Compulsive Use*

168. The ability of a substance to trigger compulsive use, including "drug-seeking and drug-taking behavior that is driven by strong, often irresistible urges" that can persist despite a desire or even repeated attempts to quit, is a hallmark of addictive substances.[177]

169. Compulsive use for tobacco in the U.S. Surgeon General's Report was demonstrated by evidence that most smokers would like to quit, but most were unable to do

[172] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[173] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[174] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[175] Id.
[176] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[177] Id.

so.[178] The report notes that the compulsive nature of tobacco is most clearly demonstrated in extreme cases where individuals experiencing significant smoking-related disease (e.g. cancer and cardiovascular disease) continue smoking.[179]

170. UPFs are capable of triggering the same kind of compulsive use. Even in the face of significant diet-related health consequences (e.g. diabetes and cardiovascular disease), the majority of patients are unable to adhere to medically recommended dietary plans that require a reduction of UPF intake.[180] One of the most commonly cited obstacles for low dietary adherence is cravings for UPF.[181]

171. Failure in response to gastric bypass provides an extreme case of compulsive UPF intake.[182] Approximately 20-50% of individuals who undergo this surgery will "eat through" it, and continue to excessively ingest UPF.[183] This intake persists despite UPFs triggering immediate aversive physical symptoms (e.g. cramping, vomiting, and diarrhea) when consumed after gastric bypass.[184]

172. Binge eating is inversely associated with minimally processed foods, whereas UPF is positively associated with binge eating.[185] A review of food diaries of individuals with eating disorders found that 100% of the foods consumed in binge episodes were UPF.[186]

173. Similarly, rodents will risk aversive experiences (e.g. electric shock) to consume industrially produced sweets when other calorie sources are easily available to them.[187] Rats even

[178] Id.
[179] Id.
[180] Id.
[181] Id.
[182] Id.
[183] Id.
[184] Id.
[185] Id.
[186] Erica M. LaFata & Ashley N. Gearhardt, *Ultra-Processed Food Addiction: An Epidemic?*, Psychother Psychosom., Nov. 2022.
[187] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.

show greater resistance to electric shock when working for industrially produced sweetener than when methamphetamine is used as the reinforcer.[188]

174. Minimally processed foods do not elicit these responses in humans or rodents.[189] Therefore, UPFs, but not other foods, meet the criterion of triggering compulsive intake consistent with addictive substances.[190]

ii. *UPF are Psychoactive Substances*

175. Psychoactivity was defined in the U.S. Surgeon General's Report as a product that "produces transient alterations in mood that are primarily mediated by effects in the brain".[191]

176. The ability of tobacco to alter mood is more subtle than intoxicating substances, such as opioids and alcohol.[192] However, tobacco products can cause detectable subjective increases in pleasure and reductions in negative affect.[193] These mood-altering effects are related to the ability of tobacco products to deliver high doses of nicotine rapidly to the brain.[194]

177. The medial habenula and ventral tegmental area are key mediators of nicotine self-administration and use.[195] Relative to dopamine agonists such as amphetamine, which can increase stratial dopamine release by 1000%, nicotine administration causes more modest increases in dopamine efflux (150-250%), which is similar to other addictive drugs such as alcohol (also 150-200% over baseline).[196] However, despite this lower magnitude, nicotine is still capable of triggering compulsive intake and changing mood.[197]

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[188] Id.
[189] Id.
[190] Id.
[191] Id.
[192] Id.
[193] Id.
[194] Id.
[195] Id.
[196] Id.
[197] Id.

178. There is sufficient evidence to label UPFs as psychoactive substances based on the criteria from the U.S. Surgeon General's Report.[198]

179. UPF are capable of increasing positive affect and reducing negative affect.[199] For example, ultra-processed sweets are associated with similar measures of psychoactive drug effects as the administration of 1.5 mg of intravenous nicotine.[200] Further, UPF intake is often motivated by a desire to alter mood rather than to address homeostatic needs.[201]

180. Regarding the brain, UPFs and their components increase dopamine in the striatum at a similar magnitude as nicotine when delivered orally (150-200%).[202]

181. These substances increase striatal dopamine (~150%) and dopaminergic firing rates even when oral somatosensation is bypassed and UPF is delivered directly to the gut.[203]

182. In other words, the addictive response is not dependent on tasting, smelling or touching UPF. It is a chemical reaction that occurs inside the body when it is exposed to UPFs—even when UPF is not eaten but is instead surgically inserted into the stomach.

183. As with tobacco, the experience of subjective liking of UPF is less central to their tendency to maintain compulsive intake.[204] Instead, UPF's ability to trigger strong urges and cravings through dopamine receptors in the brain is more central to their addictive potential.[205]

[198] Id.
[199] Id.
[200] Id.
[201] Id.
[202] Id.
[203] Id.
[204] Id.
[205] Id.

iii. *UPF are Reinforcing Substances*

184. The U.S. Surgeon General's Report defines reinforcing substances as those "being sufficiently rewarding to maintain self-administration".[206] Clearly, humans will self-administer tobacco products, although not all humans find tobacco products reinforcing.[207]

185. Nicotine was identified as a key factor in the reinforcing nature of tobacco products, as animals would self-administer nicotine, work to gain access to nicotine, and prefer places where nicotine was administered.[208] Research also demonstrated that conditioned cues paired with nicotine become secondary reinforcers.[209]

186. Compared to other addictive drugs (such as cocaine), nicotine was a relatively weak reinforcer and was only self-administered under a narrow range of conditions.[210] However, this level of evidence was sufficient for the U.S. Surgeon General's Report to conclude that tobacco products were reinforcing due to their ability to deliver nicotine.[211]

187. The reinforcing nature of UPFs is high—both adults and children will self-administer UPF even when satiated.[212] In contrast, the tendency to consume other foods when satiated is much lower.[213]

188. Daily exposure to UPF appears to sensitize the reinforcing value of these foods (as indicated by an increasing willingness to work to gain access to UPF over time) and larger

[206] Id.
[207] Id.
[208] Id.
[209] Id.
[210] Id.
[211] Id.
[212] Id.
[213] Id.

portions of UPF lead to greater sensitization.[214] In contrast, daily exposure to other foods does not sensitize reinforcement and may even reduce it.[215]

189. Thus, UPFs have a high reinforcement value.[216]

190. In animal models, the strength of reinforcement for UPFs relative to nicotine is very clear.[217] Animals will self-administer UPF in a much wider range of conditions than nicotine.[218]

191. The ability of UPFs to rapidly deliver refined carbohydrates, fat and sweet tastes appears to play a role in their reinforcing nature, as these factors are all highly reinforcing even when studied in isolation.[219] Animals will self-administer sweet tastes over cocaine more than 80% of the time.[220] In contrast, animals choose to self-administer nicotine over cocaine less than 20% of the time.[221]

iv. *UPF Cause Strong Urges & Cravings*

192. Cravings in response to tobacco-associated cues are a major driver of use in humans and is a diagnostic indicator of tobacco use disorder.[222]

193. Similarly, cravings in response to UPF cues—including marketing and promotion—drive UPF consumption and addiction.[223] Craving for UPF commonly occurs even when individuals are satiated.[224]

[214] Id.
[215] Id.
[216] Id.
[217] Id.
[218] Id.
[219] Id.
[220] Id.
[221] Id.
[222] Id.
[223] Id.
[224] Id.

194. The neural substrates underpinning cravings for UPFs and other addictive substances largely overlap.[225] As with tobacco, stimuli paired with UPFs become salient motivational cues and cue-inducing craving for UPFs is implicated in more frequent UPF intake, loss of control over UPF intake (e.g. binge episodes), difficulty losing weight and a failure to reduce UPF intake in the face of serious health conditions.[226]

195. Thus, UPFs, but not other foods, meet the criterion of triggering strong urges or cravings in a manner consistent with an addictive substance.[227]

C. A Profit-Driven Epidemic: UPFs are Engineered to Max Out Consumption, and Profits

196. There is sufficient evidence that UPFs are addictive substances, based on the physiological changes UPFs cause to brain chemistry and neurocircuitry, and the criteria used to establish the addictive nature of tobacco.[228]

197. It has been the status quo to treat UPFs as food, and not the highly refined substances that they are.[229] But "every addictive substance is something we take from nature and we alter it, and refine it in a way that makes it more rewarding—and that is very clearly what happened with these hyper-palatable food substances. We treat these foods like they come from nature. Instead, they come from big tobacco".[230]

198. Humans create addictive substances by processing naturally occurring substances into products with unnaturally high doses of reinforcing ingredients.[231] These products are

[225] Id.
[226] Id.
[227] Id.
[228] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024; Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[229] Id.
[230] Anahad O'Connor, *Many of Today's Unhealthy Foods were Brought to you by Big Tobacco*, The Washington Post, Sep. 19, 2023.
[231] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.

typically combined with other additives that further enhance their rewarding effects (e.g. menthol in cigarettes) and addictive potential.[232]

199. Cocaine is the extracted and ultra-processed modification of a South American shrub.[233] Crack is an even more ultra-processed and further addictive modification.

200. Methamphetamine is the extracted and ultra-processed modification of a Chinese shrub, that can also be synthesized in laboratories.[234]

201. UPF is the extracted and ultra-processed modification of naturally occurring components as well, stitched together with laboratory chemicals and colors and flavors developed for cigarettes. Like cocaine and methamphetamine, UPFs are addictive in ways that their unrefined predecessors are not.

202. In the case of industrial tobacco products, their complexity and inclusion of thousands of chemicals made identifying a single addictive agent challenging.[235] A dose and rate profile of a single addictive chemical was not used to identify tobacco products as addictive.[236] Instead, the U.S. Surgeon General determined the addictiveness of tobacco products using criteria that also demonstrate UPF are addictive.

203. Like industrial tobacco products, UPFs are complex substances that are psychoactive, highly reinforcing, strongly craved, and consumed compulsively.[237] UPFs meet the actual scientific criteria used to determine that tobacco products are addictive.[238]

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[232] Id.
[233] Amy Sue Biondich & Jeremy David Joslin, *Coca: The History and Midecal Significance of an Ancient Andean Tradition*, Emerg Med Int., Apr. 2016.
[234] Sanctuary Lodge Halstead, *Origins of Methamphetamine*, (Last updated Jan. 2024), https://www.sanctuarylodge.com/blog/society/origins-of-methamphetamine/.
[235] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[236] Id.
[237] Id.
[238] Id.

204. Neuroimaging studies have demonstrated similar patterns of reward dysfunction and inhibitory control deficits for those with symptoms of food addiction and substance-use disorders.[239]

205. It is clear that not all foods trigger an addictive response.[240] The scientific literature specifically points to ultra-processed foods as being uniquely implicated in the biological (e.g. downregulation of dopamine receptors with prolonged consumption) and behavioral (e.g. binge eating, withdrawal) addictive-like responses, whereas minimally processed foods do not cause these responses.[241]

206. Additionally, the consumption of UPF has been associated with subjective experiences of reward that have predicted the abuse liability of addictive substances, such as elevated craving, enjoyment and satisfaction.[242]

207. As Philip Morris scientists Frank Gullotta explained to the predecessor of Defendants Kraft Heinz, Mondelez, and Post Holding in 1990, the senses of taste, smell and touch don't "matter a didley if you don't have the effects in the brain. [UPF] are only pleasurable because of the consequences" in the brain.[243]

208. UPF engage brain regions related to reward/motivation (e.g., dorsal striatum) in a similar manner as drugs of abuse, and are commonly linked to behavioral features of addiction, such as increased loss of control eating and binging.[244]

[239] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[240] Id.
[241] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021; Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[242] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[243] *Appendix A Chemical Senses Symposium, Meeting Minutes*, Apr. 1990.
[244] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.

209. UPF are designed with combinations of ingredients that create an artificially rewarding eating experience.[245] The high levels of refined ingredients in UPF trigger metabolic signals which send reinforcing signals to the brain that this item is highly rewarding.[246] This potent combination is further amplified by the addition of unnaturally high levels of sodium and other flavor enhancers and preservatives.[247]

210. UPF are designed to optimize not only the magnitude of the reward signal in the brain through high doses of ingredients and additives, but also the speed with which that reward is delivered.[248]

211. One of the most important factors in determining addictive potential is the speed with which a substance is absorbed by the body.[249] Delivery mechanisms that lead to rapid absorption of the addictive ingredient, like smoking a cigarette or snorting cocaine, all increase addictive potential.[250]

212. In contrast, slowing the absorption rate of an addictive substance can transform an addictive drug into a therapeutic medication, as is the case for slow-release nicotine patches that aid attempts to quit smoking and slow-release stimulant medication used to treat ADHD.[251]

213. In parallel, the creation of UPF often includes the removal of ingredients such as fiber, water, or protein that slow the rate of absorption of rewarding ingredients and the addition of ingredients (like texturizers) that increase how quickly the food can be consumed.[252]

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[245] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023.
[246] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[247] Id.
[248] Id.
[249] Id.
[250] Id.
[251] Id.
[252] Id.

214. This allows ultra-processed foods to be consumed more rapidly and increases the speed with which highly rewarding ingredients are absorbed into the system.[253]

215. Thus, as with other addictive substances, the speed with which rewarding ingredients are delivered and impact the body is increased in UPF.[254]

216. The combinations found in UPF do not occur in nature; as a result, UPF excessively activate brain reward neurocircuitry, evade systems designed to signal sufficient or excess caloric intake, and thereby facilitate excess caloric intake.[255]

217. Repeated consumption of UPF over time can result in dysregulation of food reinforcement processes, leaving individuals highly motivated to seek out and consume UPF.[256] These consequences are similar to other substances of abuse, including nicotine.[257]

218. Consuming addictive drugs is not essential for survival—if one never consumes an addictive drug, survival would be possible.[258] The reinforcing and compulsive nature of addictive drugs comes from their ability to activate to an unnaturally high degree the reward/motivation, memory, and habit systems that were optimized to enhance human survival.[259]

219. Like other addictive substances, UPF do not exist in nature and are not necessary for survival.[260] Humans survived and thrived for thousands of years prior to the invention of

[253] Id.
[254] Id.
[255] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023; Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[256] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023.
[257] Id.
[258] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[259] Id.
[260] Id.

UPF. Prior to the last the last few generations, all of human existence occurred without the presence of these substances. Every human civilization was built without UPF.

220. UPF are created by combining processed ingredients and additives into novel products with unnaturally high levels or rewarding ingredients.[261]

221. The ability of addictive drugs to potently activate neurocircuitry can shift attention away from life-sustaining behaviors and instead drive forward compulsive drug-seeking and drug-taking behavior that is detrimental to health and survival.[262]

222. As with addictive drugs, excess consumption can be marked by compulsive UPF-seeking and taking behavior that results in poor health and preventable death.[263]

223. And like other addictive substances, UPF are evolutionarily novel products made possible through modern technology that provide refined and rapidly delivered primary reinforcers that tap into reward and motivation systems.[264]

224. Individual risk factors interact with the addictive potential of a substance to determine the likelihood that a specific individual will become addicted.[265]

225. Individual risk factors that increase a propensity for addiction include a family history of addiction, cognitive control difficulties, trauma exposure, and depression.[266]

226. These same risk factors also increase the likelihood of excessive UPF intake.[267]

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[261] Id.
[262] Id.
[263] Id.
[264] Ashley N. Gearhardt & Alexandra G. DiFeliceantonio, *Highly processed foods can be considered addictive substances based on established scientific criteria*, Addiction, Nov. 2022.
[265] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[266] Id.
[267] Id.

227. Given that the individual risk profile for addiction does not change quickly on a population level, increases in substance use disorders are primarily attributable to the addictive potency of the substance and accessibility within the surrounding environment.[268]

228. For the same reasons, addiction epidemics are driven not by drastic changes in individual risk factors but by changes in the environment.[269]

229. Addiction epidemics occur because a novel and potent addictive substance is created, but its addictive potential is undetected or underestimated.[270] The environment changes in a manner that makes the addictive substance more accessible.[271]

230. When addictive substances become cheap, easily accessible, heavily marketed and socially acceptable to use, the prevalence of addictive responses to that substance will increase.[272]

231. It is clear that the same environmental factors that drive addictive drug epidemics are also contributing to excessive intake of ultra-processed foods, including low cost, high availability, and frequent marketing.[273]

232. There was not a massive, population-level failure of personal responsibility beginning in the 1980s.

233. Similarly, the human genome did not undergo a radical transformation beginning in the 1980s.

[268] Erica M. LaFata & Ashley N. Gearhardt, *Ultra-Processed Food Addiction: An Epidemic?*, Psychother Psychosom., Nov. 2022.
[269] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[270] Erica M. LaFata & Ashley N. Gearhardt, *Ultra-Processed Food Addiction: An Epidemic?*, Psychother Psychosom., Nov. 2022.
[271] Id.
[272] Id.
[273] Id.

234. Instead, beginning in the 1980's, Big Tobacco and the Defendants took over the U.S. food environment and filled it with UPF.

235. Recent systematic reviews estimate that 14-20% of adults and 12-15% of children are addicted to UPF.[274]

236. The rate of UPF addiction in adults is highly similar to the rate of addiction in users of other addictive substances.[275] For example, while 90% of people consume alcohol over their lifetime, only 14% develop an alcohol use disorder.[276] Similarly only 18% of tobacco users develop a tobacco-use disorder, and only 20.9% of cocaine users become addicted.[277]

237. However, the prevalence of UPF addiction in children is "striking and unprecedented".[278] Never in American history have so many children been hooked on an addictive substance.

238. And there is a clear reason why: Defendants target children with their harmful UPF.

IV. Preying on the Vulnerable: Defendants Target Children with Marketing for Dangerous UPF

239. Big Tobacco injected its other dark arts into the U.S. food environment. It tapped one of its most ominous, and successful tactics, from the cigarette industry to increase its UPF profits: targeting children.

[274] Erica M. LaFata & Ashley N. Gearhardt, *Ultra-Processed Food Addiction: An Epidemic?*, Psychother Psychosom., Nov. 2022.
[275] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[276] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021.
[277] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021; Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[278] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.

240. Tobacco companies promoted their UPF using integrated marketing strategies that had been originally designed to sell cigarettes, surrounding children with consistent product messages in the home, store, school, sports stadium and theme park.[279]

241. Both RJ Reynolds and Phillip Morris used the techniques they developed in tobacco product development, sales and marketing to develop and market unhealthy UPF products to vulnerable populations in the USA, specifically children and racial and ethnic minority groups.[280]

242. Much as they did with cigarettes, the Big Tobacco companies used cartoon mascots, child sized packaging technologies, and advertising messages found to appeal to children's desire for autonomy, play and novelty to sell their UPF.[281]

243. Tobacco executives transferred their knowledge of marketing to young people to the UPF industry, and expanded product lines using colors and flavors, and marketing strategies originally designed to market cigarettes.[282]

244. Through centralized marketing initiatives, Philip Morris directly transferred knowledge, expertise, personnel, resources and infrastructure from its tobacco to its UPF companies.[283]

245. Phillip Morris' "Corporate Synergy Project" set up committees to identify shared activities across tobacco, alcohol and food subsidiaries to increase sales, consolidate media

[279] Kim H. Nguyen et al., *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.
[280] Tena L. Fazzino, *The Reinforcing Natures of Hyper Palatable Foods: Behavioral Evidence for Their Reinforcing Properties and the Role of the US Food Industry in Promoting Their Availability*, Current Addiction Rprts., May 2022.
[281] Kim H. Nguyen et al., *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.
[282] Id.
[283] Kim H. Nguyen at al., *Transferring Racial, Ethnic Marketing Strategies from Tobacco to Food Corporations: Phillip Morris and Kraft General Foods*, Am J Public Health, Mar. 2020.

purchases, and increase advertising budgets.[284] Marketing and brand management were centralized at the Phillip Morris corporate level.[285]

246. The combined Philip Morris companies used grocery scanners to collect consumer data, including demographics, lifestyle characteristics and purchasing patterns on 199 million people.[286] Demographics, including children's ages and household purchasing patterns, were compiled into a comprehensive consumer database used by all subsidiaries.[287]

247. Big Tobacco's approach to UPF marketing was to maximize sales to children, who are vulnerable and not fully capable of making informed decisions. As Philip Morris' CFO bragged in 1987, "We've decided to focus our marketing on kids, where we know our strength is greatest".[288]

248. After acquiring General Foods and Kraft, Philip Morris slashed UPF ad spending directed at mothers and increased ad spending directed to children by many multiples.[289]

249. For example, in the manner of a few years after acquiring General Foods, Philip Morris boosted children's marketing budget for Kool Aid from $2.8 million to over $45 million, while cutting advertising directed to mothers in half.[290]

250. Likewise, RJ Reynolds transformed Hawaiian Punch from an at-home cocktail mixer for adults to a children's beverage through reformulation, repackaging and kid-targeted marketing.[291]

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[284] Id.
[285] Id.
[286] Id.
[287] Kim H. Nguyen, *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.
[288] Hans Storr, Remarks to First Boston Beverage Tobacco Conference, (April 1, 1987).
[289] Kim H. Nguyen, *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.
[290] Id.
[291] Id.

251. Numerous campaigns were aimed at 6-12 year olds.[292] Kraft maintained a "Kids Task Force" that used integrated marketing campaigns, Disney and Nickelodeon's cartoons, toys, and games to promote UPF.[293]

252. The head of Kraft's "Kids Task Force" bragged in the late 1990s that these promotions "will reach about 95% of the kids in the target 6 to 12 age group in the U.S."[294] Philip Morris collaborated with Mattel and Nintendo to issue UPF branded toys, including Barbie and Hot Wheels.[295] Philip Morris collaborated with Marvel to issue UPF branded comic book series.[296]

253. Philip Morris created kid-focused UPF loyalty programs, such as the Kool-Aid "Wacky Warehouse", which the director of Philip Morris' beverage division described as "our version of the Marlboro Country Store".[297] A Philip Morris analysis called the Kool Aid Wacky Warehouse "the most effective kid's marketing vehicle known".[298]

254. Philip Morris directed integrated UPF marketing campaigns to children to create a "fully integrated event across all the touch-points in a kid's world".[299]

255. Philip Morris' Kraft and Burger King united in multi-million dollar integrated co-promotions on Nickelodeon in joint efforts "ratcheting up" promotion of UPF to children through TV ads, toys and cartoons.[300]

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[292] Id.
[293] Duncan Hood, *Kraft to untwist toons on ABC Disney block*, Kidscreen, Jan. 1, 1999.
[294] Id.
[295] Kim H. Nguyen, *Tobacco Industry Involvement in Children's Sugary Drinks Market*, BMJ, Mar. 2019.
[296] Id.
[297] Id.
[298] Id.
[299] Id.
[300] Corporate Affairs, *Today's Topics*, Philip Morris Companies, Inc., Jun. 1998.

256. Included in these efforts were racial/ethnic minority-targeted UPF marketing programs modeled on successful cigarette programs.[301] These programs specifically targeted children in Black and Hispanic communities.[302]

257. By 1989, KGF had been integrated with Phillip Morris Tobacco's contracts with Black and Hispanic television, print and other media.[303] In 1990, KGF pledged $7 million to Hispanic media and $2 million to Black media.[304] Kraft maintained a database of millions of Black consumers and another database of Hispanic-dominant stores serving 1 million households.[305]

258. Big Tobacco's marketing tactics targeting children and minorities were broadly applied in Philip Morris' UPF division, which later became Defendants Kraft Heinz, Mondelez and Post Holdings.

259. In a highly confidential 1999 memo, Kraft admitted that its foods were being attacked as a major cause of disease, and that "critics are calling for remedies focusing entirely on food, including taxes on 'bad' foods to control consumption and regulations to control marketing to kids".[306]

260. Despite this, and in the very same memo, Kraft committed to "expand KFNA's One Company multi-brand scale events, such as this year's partnerships with Nickelodeon and Disney's ABC network to promote Kraft's portfolio of Kids products" and that "Post will

[301] Kim H. Nguyen at al., *Transferring Racial, Ethnic Marketing Strategies from Tobacco to Food Corporations: Phillip Morris and Kraft General Foods*, Am J Public Health, Mar. 2020.
[302] Id.
[303] Id.
[304] Id.
[305] Id.
[306] *Confidential Strategic Plan*, Kraft, 1999.

strengthen its established Kids portfolio…via an integrated Post Kids scale initiative including dedicated advertising, logos and packaging graphics".[307]

261. The direct descendants of Philip Morris, Defendants Kraft Heinz, Mondelez and Post Holdings, continue to engage in these marketing strategies directing unhealthy UPF at children and minorities. These companies continue to spend millions of dollars every year marketing UPF to children and minorities.[308]

262. For example, Kraft Heinz targets children with UPF marketing including PAW Patrol games, television ads, integrated campaigns with popular children's television and movie characters, and co-branding on children's media such as Nick Jr.[309]

[307] Id.
[308] Jennifer L. Harris et al., *Rudd Report: Targeted Food and Beverage Advertising to Black and Hispanic Consumers: 2022 Update*, Rudd Center for Food Policy, Nov. 2022.
[309] See e.g., Nick Jr., *PAW Patrol: Mission Mac & Cheese Shapes #1 w/ Kraft! | Nick Jr.*, (Youtube Dec. 5, 2020), https://www.youtube.com/watch?v=x8E58eLWr6Q; Nick Jr., *PAW Patrol: Mission Mac & Cheese Shapes #2 w/ Kraft! | Nick Jr.*, (Youtube Dec. 12, 2020), https://www.youtube.com/watch?v=LqhFcFuUHFA; Nick Jr., *PAW Patrol: Mission Mac & Cheese Shapes #3 w/ Kraft! | Nick Jr.*, (Youtube Dec. 19, 2020), https://www.youtube.com/watch?v=FFYsf2T5e0U; Lunchables, *Lunchables TV Spot, 'Mixed Up Alert: Minions'*, (iSpot Jan. 28, 2019), https://www.ispot.tv/ad/ITcX/lunchables-mixed-up-alert-minions.

263. Mondelez targets children with UPF using Super Mario characters, television ads, interactive websites, and co-branding with children's movie characters.[310]

[310] See e.g., OREO Cookie, *Super Mario x OREO Limited Edition Cookies*, (Youtube Jun. 26, 2023), https://www.youtube.com/watch?v=VJrFh8rZ9pU; OREO Cookie, *Unlock your Imagination with OREO x #ifmovie*, (Youtube May 9, 2024), https://www.youtube.com/watch?v=n_Pdpeq5qvA.

264. Post Holdings airs television ads encouraging children to eat its UPF, use its UPF packaging as toys, and incorporate UPF into their science projects, as well as integrated campaigns with popular children's television and movie characters, and co-branding on children's media.[311]

[311] See e.g., Pebbles Cereal, *Let's Do This!*, (Youtube Nov. 30, 2021), https://www.youtube.com/watch?v=5rXzi7LHYwY; Honey-Comb, *Honey-Comb TV Spot, 'Made With Nickelodeon: Spongebob'*, (iSpot Jun. 5, 2019), https://www.ispot.tv/ad/ooOe/honey-comb-made-with-nickelodeon-spongebob; Honey-Comb, *Honey-Comb TV Spot, 'Cannonball'*, (iSpot Oct. 2, 2017), https://www.ispot.tv/ad/wKMv/honey-comb-cannonball.

265. These are but examples of the intensive and integrated strategies Kraft, Mondelez, and Post Holdings use to target children with UPF marketing and promotions. Additional details will be uncovered through discovery and presented at trial.

266. The other Defendants aggressively target children with UPF marketing as well. As discussed above, smaller companies within an industry observe and model themselves on the larger ones.[312] The UPF Industry is no exception.

267. Defendants all use integrated marketing campaigns to pervasively target children with UPF marketing.

268. By 2006, UPF companies spent over $1.6 billion a year on advertising directed towards children.[313] Of this, approximately $870 million was spent on marketing directed to children under 12.[314]

269. To this day, the UPF industry continues to spend over $2 billion on advertising UPF to children each year.[315] In addition to TV ads, the industry annually puts more than 3 billion ads on popular children's websites promoting UPF.[316] Defendants also pervasively market UPF to children through social media.[317]

[312] Kim H. Nguyen at al., *Transferring Racial, Ethnic Marketing Strategies from Tobacco to Food Corporations: Phillip Morris and Kraft General Foods*, Am J Public Health, Mar. 2020; Neil Fligstein, *The Transformation of Corporate Control*, Theory and Society, Feb. 1993; Heather A. Haveman, *Follow the leader: mimetic isomorphism and entry into new markets*, Adm. Sci. Q., Dec. 1993.
[313] Sarah Botha et al., *Marketing Food To Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*, U.S Federal Trade Commission Report To Congress, Jul. 2008.
[314] Id.
[315] Brett Wilkins, *NEWS: Sanders and Booker Take on Food and Beverage Industry with Legislation to Address Childhood Diabetes and Obesity Epidemics*, U.S. Senate Committee on Health, Education, Labor & Pensions, April 19, 2024; *Blumenthal, DeLauro & Booker Introduce Bicameral Bill to Curb Unhealthy Food & Beverage Marketing Targeting Kids*, U.S. Senate Office of Richard Blumenthal, Nov. 15, 2022.
[316] A E Ustjanauskas et al., *Food and Beverage Advertising on Children's Web Sites*, Pediatr Obes., Jan. 2013.
[317] Frances Fleming-Milici & Jennifer L. Harris, *Adolescents' engagement with unhealthy food and beverage brands through social media*, Appetite., Mar. 2020.

270. This advertising disproportionately targets Black and Hispanic children, who are targeted with 70% more UPF ads than their White counterparts.[318]

271. Much of this marketing intentionally plays on the addictive nature of UPF. For example numerous cartoon mascots and spokes-characters used to target children have an addictive and unhealthy relationship with the UPF they are promoting.

272. Defendant Coca-Cola specifically set out to grow individual consumption of their products, and aimed to drive individual consumption of Coca-Cola higher than individual consumption of milk and water.[319] As described by Todd Putman, Coca-Cola's former head of US Marketing, the goal was "How can we drive more ounces into more bodies more often?"[320]

273. Kids were a major target of these efforts.[321] According to Putman, "when they would turn twelve, we'd suddenly attack them like a bunch of wolves" with marketing campaigns.[322]

274. Defendant Coca-Cola's rationale was to prey on the vulnerable. As Coca-Cola acknowledged in a 2005 internal report on targeting children, "Teens are at a crucial stage on the learning curve of 'how to be me'".[323] As such, teens are a critical focus of Coca-Cola's child marketing efforts.

275. When Jeffrey Dunn, Coca-Cola President & COO of North & South America, suggested that Coke should stop marketing in public schools, he was called "an embarrassment to the company", and fired shortly thereafter.[324]

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[318] Daniel P. Jones, *Food Advertising Targeted to Hispanic and Black Youth: Contributing to Health Disparities*, University of Connecticut, Rudd Center for Food Policy & Obesity. Aug. 2015.
[319] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at 99, 108-110, (2013).
[320] Id. at 110.
[321] Id. at 110-116.
[322] Id. at 111.
[323] Clinkin Reasearch, *Convenience Teens Building Loyalty with the Next Generation*, Coca Cola Leadership Council, 2005.
[324] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at 116-118, (2013).

276. Defendant PepsiCo also aggressively markets UPF to children, and has increased such advertising since 2010.[325]

277. PepsiCo marketing prominently features young children in its advertisements, includes integrated promotions with popular cartoon characters such as the Minions, contests with prizes including free trips to amusement parks, and spokes-characters such as Chester Cheetah.[326]

[325] *Sugary Drink Targeted Marketing*, Wall Street Journal, https://www.wsj.com/public/resources/documents/Targeted-marketing-sheets-Children-Teens.pdf

[326] See e.g., Nelson Tabolt, *When Pigs Fly - Doritos Crash the Super Bowl 2015 WINNER OFFICAL*, (Youtube Nov. 9, 2014), https://www.youtube.com/watch?v=YQo0TfuueaY; Filmpop, *The New Kid | Doritos Commercial*, (Youtube Nov. 15, 2015), https://www.youtube.com/watch?v=fvyBCesuxMM; Dans Ta Pub, Cheetos Mix Ups and Despicable Me 2, (Youtube Jul. 8, 2013), https://www.youtube.com/watch?v=AhmTMN6WaKQ; Commercials Funny, *Cheetos Commercial 2018 Beluga Whale*, (Youtube Sept. 5, 2018), https://www.youtube.com/watch?v=QwBg9mSe_IY.

278. As of 2013, despite pledges to reduce advertising to children, PepsiCo was increasing its advertising to children, and Coca-Cola had placed 38 million ads for products or promotions on children's websites.[327]

279. Collectively, defendants Coca-Cola and PepsiCo spent more than $1 billion annually marketing UPF to kids.[328] These ads disproportionally target Black and Hispanic children.[329]

280. Defendant Nestle markets to children using cartoon spokes-characters, marketing prominently featuring children, and integrated campaigns across multiple media platforms to target children with UPF marketing.[330]

[327] *Sugary Drink Targeted Marketing*, Wall Street Journal, https://www.wsj.com/public/resources/documents/Targeted-marketing-sheets-Children-Teens.pdf
[328] Aurora Meadows et al., Study: *Big Soda's Ads Target Young People of Color*, EWG, August 4, 2020.
[329] Id.
[330] See e.g. Amazon Fresh, *Nesquik Bunny Ears*, (Youtube Jul. 12, 2013), https://www.youtube.com/watch?v=xmsglZvEBLY; SN ®, *Hot Pockets Commercial 2022 - (USA) • DeliWich | Commercial Break*, (Youtube Aug. 23, 2022), https://www.youtube.com/watch?v=aNVxBTOwIXs; Sar Spary, *Nestle Causes Outrage Over Ads Promoting Unhealthy Eating To Kids*, Buzzfeed News, Dec. 2015, https://www.buzzfeed.com/saraspary/nestle-blasted-for-promoting-unhealthy-eating-to-children; Elizabeth S. Moore, *It's Child's Play: Advergaming and the Online Marketing of Food to Children — Report*, Kaiser Family Foundation 2006, Jul. 2006.

281. Defendant Conagra aired cartoon movies on Nickelodeon to promote children-focused product lines such as "Kid's Cuisine".[331] Conagra's General Manager explained that "integrated promotions are critical for Kid Cuisine to drive kid requests for our meals and strengthen brand equity among children. When Kid Cuisine partners with strong licensed

[331] Conagra News Release, *Conagra Foods' Kid Cuisine® Brand Launches Integrated Marketing Promotion with 'Planet 51(TM') Animated Movie*, Conagra Brands, Nov. 19, 2009

properties, we've seen measurable sales increases".[332] Conagra also uses cartoons, super-hero spokes-characters, and ads prominently featuring young children.[333]

282. Defendant General Mills uses marketing featuring young children, cross promotions with popular children's movie characters, giveaways including free movie tickets to

[332] Id.

[333] See e.g. Kid Cuisine, *Kid Cuisine Earth's Mightiest Popcorn Chicken TV Spot, 'Avengers Assemble'*, (iSpot Feb. 5, 2018), https://www.ispot.tv/ad/walC/kid-cuisine-earths-mightiest-popcorn-chicken-avengers-assemble; Kid Cuisine, *Kid Cuisine Galactic Chicken Breast Nuggets TV Spot, 'Junior Jedi'*, (iSpot Sept. 13, 2016), https://www.ispot.tv/ad/ACef/kid-cuisine-galactic-chicken-breast-nuggets-junior-jedi;

Disney cartoons, multimedia games, online quizzes and cell phone apps to market UPF to children.[334]

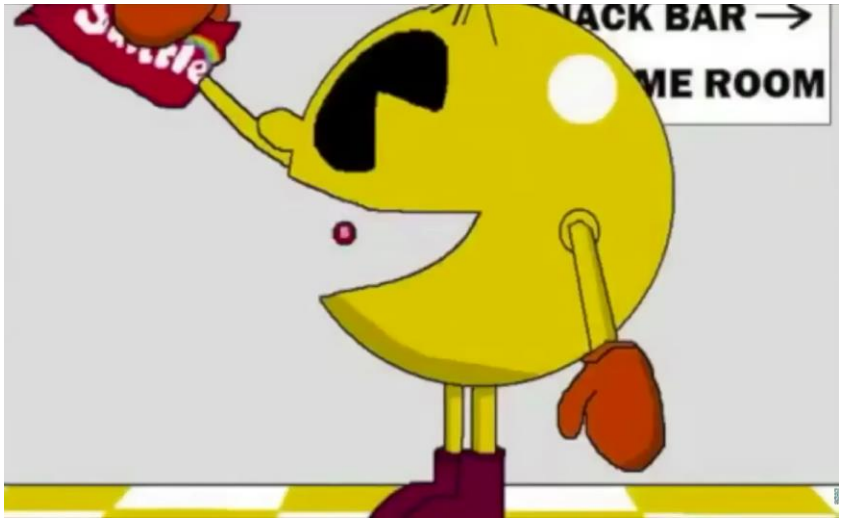
[334] Matt Richtel, *In Online Games, a Path to Young Consumers*, New York Times, Apr. 20, 2011; Anneliese STREBEL, *GoGurt Commercial 2017 Guardians of the Galaxy Vol. 2*, (Youtube Jan. 12, 2018), https://www.youtube.com/watch?v=mcyncuQfFdU; Cheerios, X, (Nov. 16, 2022), https://x.com/cheerios/status/1725222885399130220; Lucky Charms, *Lucky Charms TV Spot, 'Rainbow Unicorn Marshmallows'*, (iSpot Jul. 29, 2019), https://www.ispot.tv/ad/oD5I/lucky-charms-rainbow-unicorn-marshmallows;Go-Gurt, *GoGurt TV Spot, 'Minion Jokes'*, (iSpot Jun. 15, 2015), https://www.ispot.tv/ad/7cQJ/gogurt-minion-jokes.

283. Defendant Kellogg's uses marketing featuring cartoons, spokes-characters, young children, and cross promotions with popular Disney movies to target children with UPF marketing.[335]

[335] See e.g. KelloggsUS, *Disney Frozen 2 - Kellogg's Commercial*, (Youtube Nov. 6, 2019), https://www.youtube.com/watch?v=rB4hIYwJuiY; Rice Krispies, *Rice Krispies Christmas message*, (Mar. 11, 2013), https://www.youtube.com/watch?v=drInTjUw48w&list=PLGP6FBvf5tT6DHLv5NtvXXLTTfeY97ke2&index=145; Froot Loops, *Froot Loops® | Wild Dance*, (Youtube Dec. 5, 2022) https://www.youtube.com/watch?v=6EMTMeumq_4; Rice Krispies, *Rice Krispies Vibin' - Official Lyric Video*, (Youtube Jun. 30, 2021). https://www.youtube.com/watch?v=P-mYetXky_Y&list=PLGP6FBvf5tT6DHLv5NtvXXLTTfeY97ke2&index=162.

284. Defendant Mars uses marketing featuring cartoons, children, popular video game characters, and internet promotions to target children with UPF marketing.[336]

[336] See e.g., Commercial Ads, *Skittles Commercials Compilation Taste The Rainbow Ads*, (Youtube Sept. 30, 2018), https://www.youtube.com/watch?v=GUVkO6ts2pA; Funny Commercials, *All Funniest Starburst Fruit Flavored Juicy Candy Commercials EVER!*, (Youtube Oct. 1, 2020), https://www.youtube.com/watch?v=wqeNn0sQAI4; Juicy Fruit, *Juicy Fruit Starburst TV Spot, 'Teens Use Zippers to Communicate'*, (iSpot Jan 12. 2015), https://www.ispot.tv/ad/7HjH/juicy-fruit-starburst-teens-use-zippers-to-communicate.



285. These are but examples of the intensive and integrated strategies Defendants use to inundate children with UPF marketing. Additional details will be uncovered through discovery and presented at trial.

286. Despite repeated promises to reduce advertising targeting children, Defendants collectively target kids with billions of website advertisements every year.[337]

287. Defendants continue to target children with intensive, integrated marketing campaigns designed to infiltrate multiple touchpoints of children's lives.

288. And while some UPF companies claim that they restrict their child targeting to adolescents, adolescents may be even more vulnerable to UPF's harmful marketing appeals than younger children.[338]

[337] A E Ustjanauskas et al., *Food and Beverage Advertising on Children's Web Sites*, Pediatr Obes., Jan. 2013.
[338] Jennifer L. Harris et al., *Hooked on Junk: Emerging Evidence on How Food Marketing Affects Adolescents' Diets and Long-Term Health*, Curr. Addict. Rep., Nov. 2020.

289. Scientists have determined that UPF promotions "continue to present a risk to young people's heath and raise ethical concerns".[339] UPF companies have "never had so much access to [children] and never been able to bypass parents so successfully".[340]

V. A Banquet of Consequences—UPF Companies have Unleashed Immense Harm on American Children

290. Collectively, the Big Tobacco companies dominated the U.S. food industry from 1985 through 2007. During this time, Big Tobacco's food companies, including Defendants Kraft Heinz, Mondelez, and Post Holdings, selectively disseminated addictive UPF into the U.S. food environment. The other Defendants followed the lead of the Big Tobacco companies, and our food supply has become dominated by UPF.

291. As Oregon State professor Howard Hilleman, PhD recognized in 1958, we are "a captive population with respect to freedom in the selection of food. Such people as we are largely at the mercy of the foods of commerce and those who supply them".[341]

292. Currently about 73% of the food in our food supply is ultra-processed and potentially addictive.[342] Unsurprisingly, these foods compose 67% of our children's diets on average.[343]

293. With Americans' food options so dominated by UPF, the notion of "personal responsibility" is thoroughly undermined. People consume unhealthy UPF because it has

[339] James W. Elsey & Jennifer L. Harris, *Trends in Food and Beverage Television Brand Appearances by Children and Adolescents from 2009 to 2014 in the USA*, Public Health Nutr., Nov. 2015.
[340] Matt Richtel, *In Online Games, a Path to Young Consumers*, New York Times, Apr. 20, 2011.
[341] Howard H. Hilleman, *Chemical Additives in Our Foods*, Natural Foods and Farming, 1958.
[342] Jessica Taylor Price, *Has your food been chemically altered? New database of 50,000 products provides answers,* Northeastern Global News, May 25, 2022.
[343] Lu Wang et al., *Trends in Consumption of Ultraprocessed Foods Among US Youths Aged 2-19 Years, 1999-2018*, JAMA, Aug. 2021.

crowded out other options. This is not a lack of personal responsibility but a deprivation of personal choice—Defendants' unhealthy UPF is ubiquitous.

294. UPF is engineered to hack the physiological structures of our brains.[344] Defendants purposefully sought to introduce addictive qualities into their UPF, using the same experimental psychology research pioneered by the tobacco industry to make cigarettes more addictive.

295. Defendants incorporated colorings, flavorants, and other additives initially created for cigarettes into their products. They selectively manufactured and sold foods that have addictive qualities. And they aggressively marketed their products to children, especially to Black and Hispanic children, using marketing tactics pioneered by the tobacco industry to sell cigarettes to children and these communities.

296. Defendants each used sophisticated brain science to develop products that would be overconsumed, in order to generate excess profits. Each Defendant targeted children with marketing for their dangerous and addictive UPF.

297. In terms of profits, Defendants' efforts have been highly successful. Real food has been displaced by UPF in the American food environment, and Defendants have generated billions of dollars in profits.

298. However, in more important terms—in human terms—Defendants' actions have been disastrous. Defendants got rich by robbing the health of American children.

[344] Robert Lustig, The Hacking of the American Mind, (2017); Chris van Tulleken, Ultra-Processed People: The Science Behind the Food, at 151-171, (2023).

299. The exponential increase of UPF in our food system, beginning in the 1980s, ushered in a multitude of epidemics. Defendants' displacement of real food by UPF has caused social, cultural, economic, political and environmental disruption and crises.[345]

300. Since Big Tobacco spread its knowledge of addiction science and child targeting through our food environment, obesity rates have exploded. Colorectal cancer has doubled in young adults.[346] Type 2 Diabetes rates are soaring.

301. 14-20% of adults and 12-15% of children are addicted to UPF.[347] This rate in adult is highly similar to prior addiction epidemics, including tobacco.[348] However, the prevalence of UPF addiction in children is "striking and unprecedented".[349] Never in American history have so many children been hooked on an addictive substance.

302. A similar level of U.S. children are now obese, a level that has more than tripled since the 1970's.[350] Obesity disproportionately affects Black and Hispanic children—the exact children the UPF industry disproportionately targets with marketing.[351]

303. For the first time in human history, diseases of older alcoholics emerged in children.[352] These diseases, including Type 2 Diabetes and Fatty Liver Disease, are now common in children—and increasing.

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[345] Carlos A. Monteiro et al., *UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing*, Public Health Nutr. Jan. 2018.
[346] Rebecca L. Siegel et al., *Colorectal Cancer Statistics*, CA Cancer J Clin., May 2023, https://health.ucdavis.edu/news/features/colon-and-rectal-cancer-on-the-rise-in-young-adults-/2024/03.
[347] Erica M. LaFata & Ashley N. Gearhardt, *Ultra-Processed Food Addiction: An Epidemic?*, Psychother Psychosom., Nov. 2022.
[348] Ashley N. Gearhardt & Erica M Schulte, *Is Food Addictive?*, Annu Rev Nutr., Oct. 2021; Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[349] Erica M. LaFata, *Ultra-Processed Food Addiction, a Research Update*, Curr Obes Rep., Jun. 2024.
[350] Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, *Obesity*, CDC Healthy Schools, (Last updated Aug. 2022), https://www.cdc.gov/healthyschools/obesity/index.htm.
[351] Id.
[352] Robert H. Lustig, *Ultraprocessed Food: Addictive, Toxic, and Ready for Regulation*, Nutrients., Nov. 2020.

304. Childhood Type 2 Diabetes and Fatty Liver Disease are commerciogenic diseases: diseases which would not exist but for the recklessness of the companies that dominate our commercial food system, including Defendants.

305. Prior to 1985, Type 2 Diabetes ("T2D") was only a disease of older adults.[353] It was alternatively referred to as "adult-onset diabetes" to distinguish between type 1 diabetes, which can present at childhood.

306. But beginning in the late 1980's, doctors began seeing unusual findings in certain minority communities. Children began presenting with all of the clinical features of T2D.

307. These unfortunate children were canaries in the coal mine—the first harbingers of a public health calamity that continues to convulse through American families.

308. Throughout the early 1990's, as clinicians began to observe more pediatric T2D cases, the scientific community remained skeptical about how T2D could even exist in children.[354]

309. However, as rates of childhood obesity and childhood T2D rose throughout the late 1990's and early 2000's, the notion that it was possible for children to get T2D gained broad acceptance.[355]

310. Type 2 Diabetes mellitus is now one of the fastest growing pediatric chronic diseases worldwide, with rates accelerating rapidly throughout the world.[356] In the U.S., the rates of Childhood T2D doubled between 2000 and 2017.[357]

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[353] Heather J. Dean & Elizabeth Sellers, *Children have Type 2 Diabetes too, a historical perspective*, Biochem Cell Biol, Oct. 2015.
[354] Id.
[355] Id.
[356] Id.
[357] Centers for Disease Control and Prevention, *New Research Uncovers Concerning Increases in Youth Living with Diabetes in the U.S.,* (Last updated Aug. 2021).

311. A quarter (25%) of children with T2D are not obese.[358] This indicates that obesity is a marker of T2D in children, but is not the sole cause.

312. The very children targeted by Defendants' marketing have fared the worst. In 2021, the Centers for Disease Control noted that, in particular, the rates of "Type 2 Diabetes skyrocket[ed] in Black and Hispanic youth".[359] Compared to white children, the rates of T2D grew 5 times as fast among Hispanic children, and 9 times as fast among Black children.

313. This is an ongoing, and unmitigated, disaster for American children and families. The prevalence of childhood T2D is currently projected to increase 7-fold by the year 2060 if current trends continue.[360]

314. Other previously unheard of diseases are also ravaging American kids. Non-alcoholic fatty liver disease is the second leading cause of liver transplantation, and results from a buildup of fatty deposits in the liver.[361] As described by neuroendocrinologist Robert Lustig, it is the transformation of the human liver into foie gras.[362]

315. Like Type 2 Diabetes, fatty liver disease was formerly a disease exclusive to the elderly and alcoholics, but it now affects children in ever increasing numbers.[363]

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[358] Milena Cioana et al., *The Prevalence of Obesity Among Children with Type 2 Diabetes, Systematic Review and Meta-Analysis,* JAMA, Dec. 2022.
[359] Centers for Disease Control and Prevention, *New Research Uncovers Concerning Increases in Youth Living with Diabetes in the U.S.,* (Last updated Aug. 2021).
[360] Thaddäus Tonnies et al., *Projections of Diabetes Burden in US Population Aged under 20 years through* 2060, Diabetes Care., 2023.
[361] Haley Bush et al., *Pediatric Non-Alcoholic Fatty Liver Disease*, Children (Basel), Jun. 2017.
[362] Elaine Watson, *'Protect the liver, feed the gut…' Dr. Robert Lustig takes fresh aim at processed food industry: 'We've literally turned ourselves into foie gras'*, Food Navigator USA, May 27, 2021.
[363] Robert H. Lustig, *Ultraprocessed Food: Addictive, Toxic, and Ready for Regulation*, Nutrients., Nov. 2020; Ariana Eunjung Cha, *Fatty liver disease rising in U.S. kids as Ultra-Processed Diets Surge*, Washington Post, Oct. 3, 2023.

316. Before 2000, there were only a handful of documented cases of pediatric fatty liver disease in the medical literature.[364] Today millions of children are affected, with rates nearly tripling between 2017 and 2021.[365]

317. Liver transplants in children have increased by 25% in the past decade.[366] In some cases, children as young as toddlers are showing clinical signs of fatty liver disease.[367]

318. As with childhood Type 2 Diabetes, a sizable fraction of pediatric fatty liver disease cases are non-obese.[368]

319. This is because obesity is not the cause of childhood Type 2 Diabetes or childhood fatty liver disease, obesity is just a marker of these diseases.[369]

320. Obesity existed in children before Defendants' conduct alleged herein, but childhood Type 2 Diabetes or childhood fatty liver disease did not. This makes clear that exposure, rather than individual behavior, is at the root of these epidemics.[370]

321. UPF is the cause of childhood Type 2 Diabetes and childhood fatty liver disease.[371] Defendants' conduct is a direct and substantial cause of these diseases.

322. The emergence of these diseases (and increase in other diseases) is the result of profound corruption in the U.S. food system.

323. Defendants made purposeful decisions to engineer their UPF in ways that make them harmful for human consumption, and to inundate children with marketing to increase child consumption of UPF.

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[364] Id.
[365] Id.
[366] Id.
[367] Id.
[368] Robert Lustig, The Hacking of the American Mind, at 127-128, (2017).
[369] Robert H. Lustig, *Ultraprocessed Food: Addictive, Toxic, and Ready for Regulation*, Nutrients., Nov. 2020.
[370] Id.
[371] Id.

324. There was not a massive, population-level failure of personal responsibility beginning in the 1980's. Similarly, the human genome did not undergo a paradigmatic shift beginning in the 1980's.

325. Instead, what happened in the 1980's was that Big Tobacco, and Defendants, took over the U.S. food environment and filled it with UPF.

326. Defendants targeted children, especially Black and Hispanic children, with marketing. These children now have rising levels of unprecedented diseases that are caused by Defendants' UPF.

327. The ramifications of developing chronic disease during childhood reverberate throughout the rest of that child's life. Children who develop chronic diseases will have diminished life expectancy, reduced social and economic prospects, decreased happiness, greater suffering and greater risks of complications.

328. Children with chronic diseases will live the rest of their lives sick, suffering, and getting sicker.

329. It can be expected that children with T2D will also develop diabetes related micro- and macro-vascular complications, including amputation, blindness, nephropathy and retinopathy.[372] Additional complications include (but are not limited to) diabetic neuropathy, coronary disease, congestive heart failure, stroke, cardiovascular mortality, nerve damage, kidney damage, hearing impairment, Alzheimer's disease, and depression.[373]

[372] George Alberti et al., *Type 2 Diabetes in the Young: The Evolving Epidemic. Consensus Statement of the International Diabetes Federation Consensus Workshop*, Diabetes Care., Jul. 2004.
[373]American Diabetes Association, *Diabetes Complications What you need to know about diabetes complications*, ABOUT DIABETES, (Last viewed July 2024), https://diabetes.org/about-diabetes/complications; Mayo Clinic Staff, *Diabetes Symptoms and Causes*, Mayo Clinic, (Last updated Mar. 2024), https://www.mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444.

330. Canadian researchers conducted a fifteen-year follow-up of children diagnosed with T2D and found an alarming number of these children suffered from blindness, amputation, kidney failure requiring dialysis, pregnancy loss, and death in ***young adulthood***.[374]

331. Children diagnosed with fatty liver disease will develop complications as well, including (but not limited to) hepatitis, fibrosis, cirrhosis, liver failure, liver cancer, hepatocellular carcinoma, cancers outside the liver, heart disease and cardiovascular mortality.[375]

VI. Decades of Warnings Ignored: Defendants had Every Reason to Know that their Conduct Would Gravely Wound America's Children

A. The Risks of Ultra-Processing have long been clear to UPF Manufacturers

332. Defendants had every reason to know that their actions would unleash societal devastation and create public health crises in America's youth.

333. Indeed, Defendants had actual knowledge that these consequences would occur.

334. Yet, Defendants recklessly, and intentionally, sacrificed the health of America's children on the altar of higher profits.

335. Well before Carlos Monteiro developed the NOVA classification system, Dr. W. Coda Martin expounded a similar philosophy of nutrition to the National Dietary Association in a speech titled "When is Food a Poison?". In that speech, Dr. Martin explained "Man is a living, dynamic organism. He is a three-fold being consisting of body, mind and spirit. He is not a mechanical machine. Therefore, scientists cannot produce food for living organism, plants, animals or humans by methods applicable to that used for dead or inanimate machines".[376]

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[374] Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History, Big Tobacco Played Dirty and Millions Died. How Similar is Big Food?*, Milbank Q., Mar. 2009.
[375]Cleveland Clinic, *Steatotic (Fatty) Liver Disease*, Cleveland Clinic, (Last reviewed Sept. 2023), https://my.clevelandclinic.org/health/diseases/15831-fatty-liver-disease.
[376] W. Coda Martin, *When is a Food a Poison? Philosophy of Nutrition*, National Dietary Association, 1957.

336. It has long been clear that ultra-processing serves no purpose other than to increase profits of UPF manufacturers.

337. As far back as 1958, an article in *Prevention* explained that added chemicals in food

> "are there to make greater profit for the food processor. They serve no other purpose. They do not improve the food in any way for the consumer. But the consumer must pay (and how many pay with their lives?) for the extra profit made by using a preservative that prolongs the 'shelf-life' of the product, by using a dye that gives the product brighter color than that of a competitive product, by using a synthetic fat in place of a natural one and thus cutting costs."[377]

338. There have been concerns about ultra-processing since its invention. At the dawn of industrial food processing, reasonable experts expressed grave concern about the public health consequences of introducing laboratory chemicals and novel substances into our food supply. A 1951 report noted that:

> "The number of chemicals entering the food supply of the Nation has increased tremendously in the last decade. The rapidity with which substances heretofore foreign to the body are being introduced in the production, processing, storage, packaging and distribution of food is alarming. Eminent pharmacologists, toxicologists, physiologists, and nutritionists expressed fear that many of the chemicals being added to food today have not been tested sufficiently to establish their nontoxicity and suitability for use in food. These scientists are not so much concerned with the acutely toxic compounds whose harmfulness can readily be detected as they are with the small and insidious toxic effects of substances which may produce harmful effects only after being fed for months or years".[378]

339. Around the same time, an article warned that "hundreds of untested and unproved chemicals, in the hands of irresponsible food manufacturers, are threatening the health, and even the lives, of our families".[379] The article noted that "in general, nutritionists agree that no new

[377] *Cancer and Nutrition*, Prevention, Jan. 1958.
[378] James J. Delany et al., *Delaney Investigation on the Use of Chemicals in Foods*, Union Calendar, Jan. 1951.
[379] James J. Delaney, *Peril on Your Shelf*, American Magazine, Jul. 1951.

chemical should be added, however, unless it is definitely proved safe, serves a useful purpose, and is not a substitution in whole or in part for a natural food element".[380]

340. A Harvard cancer research scientist concurred, stating "It is simply not in the public interest to expose consumers to the unforeseeable risks of a host of biologically foreign food additives that provide eye appeal and advertising value but offer no nutritive benefit".[381]

341. Similarly, in 1957, health advocate Gloria Swanson stated:

> "It is horrifying to know that 99.9% of our citizens (that includes you but not me—because most of my food is organically grown and unsprayed)—that 99.9% are eating more than 276 chemicals (this was the figure in 1952, no doubt its greater now) which have never been pretested for their chronic effect on human body and mind. You may say you feel fit—but remember most of you like me, have come from healthy stock and were raised on unprocessed and unsprayed foods—so our stamina has saved us. I tremble to think what kinds of minds and bodies my grandchildren's children will have if this continues".[382]

342. Swanson's warning was prescient. Three generations later, U.S. children are contracting severe chronic illnesses in unprecedented numbers, and growing sicker each year.

343. There are now more than 10,000 chemicals in our food supply—almost none of which have any published safety information.[383]

344. Almost none of these chemicals have undergone long-term safety testing to determine whether they are safe to be chronically consumed, or whether there are "small and insidious toxic effects of substances which may produce harmful effects only after being fed for months or years". Many of these may exhibit toxicities at exceedingly low levels or are suspected endocrine disruptors.[384]

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[380] Id.
[381] *Doctor Says we may be Eating Cancer*, Citizens Medical Reference Bureau Inc., 1957
[382] Swanson, Remarks at Big Brother Luncheon, Advertising Club, (November 19, 1957).
[383] Maricel V. Maffini et al., *We are what we eat: regulatory gaps in the United States that put our health at risk*, PLoS Biol., Dec. 2017; Olivia Backhaus & Melanie Benesh, *EWG analysis: Almost all new food chemicals greenlighted by industry, not the FDA*, EWG, Apr. 2022.
[384] Maricel V. Maffini et al., *We are what we eat: regulatory gaps in the United States that put our health at risk*, PLoS Biol., Dec. 2017.

345. These and other components of UPF can contribute to endocrine diseases such as diabetes and fatty liver disease. For example, a recent large high-quality epidemiological cohort study revealed "direct associations between the risk of Type 2 Diabetes and exposures to various food additives and emulsifiers widely used in industrial foods".[385]

346. There are no requirements for UPF companies to submit safety information or subject chemicals to independent testing and review before introducing them into our food supply.

347. Neither UPF companies nor federal regulators are required to evaluate whether chronic diseases can be caused by a single chemical additive or combinations of multiple chemical additives.[386] There are no testing requirements to demonstrate the effects of low or cumulative exposures that occur in the diet.[387]

348. UPF companies can introduce new chemicals, or use chemicals in new ways, without disclosing "the identity of the substance, where it was used, how much of it was used, and if it was safe".[388]

349. Under the voluntary chemical registration system, the FDA does not have authority to limit a chemical's use in edible substances, even if there are safety concerns.[389] A chemical can still be marketed as "generally recognized as safe" ("GRAS") even if there are safety concerns, and no one—neither competitors nor consumers—will know that there might be safety concerns.[390]

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[385] Clara Salame et al., *Food Additive Emulsifiers and the Risk of Type 2 Diabetes: Analysis of data from the NutriNet-Sante prospective cohort study*, Lancet Diabetes Endocrinol., May 2024.
[386] Maricel V. Maffini et al., *We are what we eat: regulatory gaps in the United States that put our health at risk*, PLoS Biol., Dec. 2017.
[387] Id.
[388] Id.
[389] Id.
[390] Id.

350. The paucity of safety and testing information disclosed by UPF manufacturers is astonishing.[391]

351. Nevertheless, most consumers assume that if something is on shelves, and available for purchase at grocery stores and restaurants, it is safe, pure and does not contain hidden health harms.

352. Most consumers assume that anything included in a store bought item has been studied, tested, and guaranteed to be safe—especially given the likelihood that children may ingest these items. After all, who would sell untested, harmful, and potentially addictive items to children?

353. Big Tobacco companies took advantage of consumers' reasonable assumptions and dramatically increased the amount of untested chemicals in our food supply.

354. Defendants, who are either direct descendants of Big Tobacco, or have used similar technologies and strategies as Big Tobacco, had every reason to know that creating and selling untested UPF could lead to incurable and life-changing illnesses.

355. Yet, instead of adequately testing the effects of consuming their UPF, Defendants have actively refused to conduct the kind of safety testing needed to ensure their UPF could be consumed without harm.

356. Alternatively, Defendants' internal testing has revealed safety concerns that they have concealed from consumers, regulators, and the public, and Defendants had actual knowledge that their UPF would cause incurable and life-changing illnesses.

[391] Id.

B. The Predatory Nature of UPF Marketing Has Been Clear from the Start

357. The predatory nature of targeting children with UPF advertisements has been clear for decades. As the creator of Sesame Street observed in the 1970s, advertising UPF to children is 'like shooting fish in a barrel…grotesquely unfair'".[392]

358. Around that time, the President of the Council on Children, Media and Merchandising explained:

> "Advertising to children much resembles a tug of war between 200-pound men and 60-pound youngsters…Any communication that has a $1000-per-commercial scriptwriter, actors, lighting technicians, sound effects specialists, electronic editors, psychological analysts, focus groups and motivational researchers with a $50,000 budget on one end and the 8-year-old mind (curious, spongelike, eager, gullible) with 50 cents on the other inherently represents an unfair contest"[393]

359. In an extensive 1978 report, the U.S. Federal Trade Commission ("FTC") stated that children are too naïve to "perceive the selling purpose of television advertising or otherwise comprehend or evaluate it and tend…to view commercials simply as a form of informational programming".[394]

360. A British Parliamentary report at the time stated, "children are inclined to believe that what they are told in a television programme is not only true, but the whole truth…that is why the majority of us believe that children should not be exposed to the blandishments and subtle persuasiveness of advertisements".[395]

361. The FTC report commented on this U.K. Parliamentary finding, noting "That view has widespread support throughout the world".[396]

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[392] Ellis M. Ratner et al., *FTC Staff Television Advertising to Children*, Feb. 1978.
[393] Id.
[394] Id.
[395] Id.
[396] Id.

362. An advertising executive explained that the goal of marketing to kids is to take advantage of their ability to be "very successful naggers", explaining that "'When you sell a woman on a product and she goes into the store and finds your brand isn't in stock, she'll probably forget about it. But when you sell a kid on your product, if he can't get it he will throw himself on the floor, stamp his feet and cry. You can't get a reaction like that out of an adult'".[397]

363. Thus, as described by Dr. Frances Horwich, a psychologist and director of children's television programming, "the child is unwittingly turned into an assistant salesman. He sells, he nags, until he breaks down the sales resistance of his parent".[398]

364. The FTC noted that "this takes a toll on the parent-child relationship".[399]

365. The President of the American Academy of Child Psychiatry stated that the Academy is "deeply concerned with the exploitation of children for advertising purposes because it encourages confrontation and alienation on the part of children toward their parents and undermines the parents' child rearing responsibilities".[400]

366. Along the same lines, when asked why parents don't shield their children from televised food advertising, NYU psychology professor Dr. Sherryl Graves said that "the matter is not so simple" and that "the unwillingness of parents to intervene often stems from profound feelings of helplessness, and from fear that if they deny their children so pervasive a childhood experience as children's program, the children will become social outcasts or social isolates".[401]

367. The FTC found that "whatever the dynamics of the matter may be, it does appear that there are substantial numbers of parents who object to the advertising being addressed to

[397] Id.
[398] Id.
[399] Id.
[400] Id.
[401] Id.

children on television, but who are unwilling or unable to take the drastic step of shutting that advertising out of the home by forbidding their children to watch".[402]

368. The FTC report warned that television advertising of foods to children does not "impress on them the risks they take by eating the advertised products", and may pose a threat to their health.[403]

369. The American Medical Association characterized "televised food advertising to children" as 'most distressing' and as 'counter-productive to the encouragement of sound [nutritional] habits'".[404]

370. FTC explained that "a number of prominent nutritionists, educators, other public health professionals, and parents have expressed concern that televised food advertising addressed to children is distorting nutritional habits, negating what little nutrition education takes place in the schools, and undermining the authority of parents in their own homes on matters of nutrition".[405]

371. The FTC concluded that "advertisements for sugared products, like those for cigarettes, involve inducements to children to gamble with their health" and that

> "such advertising causes substantial injury to children to the extent that it induces them to consume products which pose health risks and interferes with their education on matters of nutrition. It injures the parent-child relationship in that it puts parents in the hard choice of allowing their children to take those health risks or enduring the strife that can accompany denial of requests induced by television advertising".[406]

372. The FTC further found that "The advertising at issue is deceptive in that it fails to state facts which are material, either in light of the claims made in the advertising, or in light of

[402] Id.
[403] Id.
[404] Id.
[405] Id.
[406] Id.

the customary or recommended use of the advertised products…The material but unrevealed fact is that the products can also pose health risks".[407]

373. All of this was before tobacco companies super-charged child advertising budgets for their food companies in the late 1980s and early 1990s, and set in motion a model that the UPF industry has followed ever since.

374. Despite clear warnings about the harms likely to result from targeting kids for marketing UPF, and the fundamental unfairness of targeting children with UPF marketing, Defendants have purposefully inundated America's children with UPF ads for decades.

375. Defendants' conduct in this regard directly degraded the health of America's youth.

376. By 2006, the Institutes of Medicine ("IoM") found that "The dramatic rise in the number of U.S. children and youth who are obese, have Type 2 Diabetes, and are at increased risk for developing obesity and related chronic diseases in adulthood, is a matter of national concern".[408]

377. The IoM found that "the prevailing pattern of food and beverage marketing to children in America represents…a direct threat to the health of the next generation. Dietary patterns that begin in childhood give shape to the health profiles of Americans at all ages".[409]

378. The IoM report noted

> "Children and youth represent a primary focus of food and beverage marketing initiatives. Between 1994 and 2004, the rate of increase in the introduction of new food and beverage products targeted to children and youth substantially outpaced the rate for those targeting the total market. An estimated more than $10 billion per year is spent for all types of food and beverage marketing to children and youth in America".[410]

[407] Id.
[408] J. Michael McGinnis et al., *Food Marketing to Children and Youth: Threat or Opportunity*, (2006).
[409] Id.
[410] Id.

379. Among the IoM's Key Findings were that "food and beverage marketing influences the preferences and purchase requests of children, influences consumption…is a likely contributor to less healthful diets and may contribute to negative diet-related health outcomes and risks among children and youth".[411]

380. Based on their systematic review, the IoM stated "it can be concluded that television advertising influences children to prefer and request high-calorie and low-nutrient foods and beverages".[412] The IoM further found that "food and beverage marketing practices geared to children and youth are out of balance with healthful diets and contribute to an environment that puts their health at risk".[413]

381. While the 2006 IoM Report recommended changes that UPF manufacturers could take to improve their child marketing behaviors, a 2013 follow-up found that only limited progress had been made, and that "there has been a proliferation of new venues and new vehicles, particularly the rise of digital media".[414]

382. UPF industry groups and some (but not all) Defendants have claimed to take voluntary action to "self-regulate" the ways in which they target children with marketing for UPF. However, the IoM found in 2013 that "Despite the lip service paid to children, actions do not match words…Children are society's most vulnerable population, and those who care the most about them need to be mobilized".[415]

383. Similarly, the FTC found in 2012 that

> "The overall picture of how marketers reach children…did not significantly change. Companies continue to use a wide variety of techniques to reach young people, and marketing campaigns are heavily integrated, combining traditional media, Internet, digital

[411] Id.
[412] Id.
[413] Id.
[414] Institute of Medicine at al., *Challenges & Opportunities for Change in Food Marketing to Children & Youth*, (2013).
[415] Id.

> marketing, packaging, and often using cross-promotions with popular movies or TV characters across all of these. Those techniques are highly effective. Consumer research submitted by the reporting companies confirms the "pester power" phenomenon—child-directed marketing and promotional activities drive children's food requests. Children, in turn, play an important role in which products their parents purchase at the store, and which restaurants they frequent".[416]

384. The FTC noted that new media marketing was increasing, and that "viral marketing and word-of-mouth activities were increasingly used by food marketers to reach children and especially teens and were often closely integrated with Internet marketing…Food marketers also used word-of-mouth techniques—recruiting consumers as 'ambassadors' of the brand".[417]

385. Internal company research indicated that the use of athletes and other superstar celebrities produced pronounced effects in children[418] Spokes-characters, including third-party characters from popular TV shows or movies were also revealed to be effective methods of targeting children.[419]

386. FTC also found that "contests and promotions are another common marketing technique used to target youth".[420]

387. Defendants' child targeting efforts are highly sophisticated, and highly effective. According to FTC,

> "one company's research indicated that a child seeing an ad for a food product or seeing the product on the shelf was a key factor in purchase and that 75% of the purchasers surveyed bought the product for the first time because their child requested it…Another company submitted research showing that in-store advertising programs using child-targeted character-based themes outperformed those using mom-targeted campaigns. Yet another company found that children are most influential in the purchase decisions for

[416] Sarah Botha et al., *A Review of Food Marketing to Children and Adolescents*, U.S. Federal Trade Commission Follow-Up Report, Dec. 2012.
[417] Id.
[418] Id.
[419] Id.
[420] Id.

snacks. These findings are relevant in light of other research submitted showing that for children, good commercials and websites are the key drivers of food appeal".[421]

388. In 2012, a group of 300 retired U.S. admirals and generals declared that in-school marketing of UPF "is not just a national health issue. It is a national security issue", and jeopardizing our ability to field an adequate military.[422]

389. The group found that UPF marketing in schools was degrading America's armed forces, and that 1 in 4 potential recruits could not meet military fitness standards.[423]

390. UPF was found to cause military challenges even for youth who could join, because they "become too heavy once they are in the military, or have weak muscles or bones from poor nutrition" that can lead to excess sprains or stress fractures.[424]

391. Despite these clear warnings, and knowledge that their conduct represented "a direct threat to the health of the next generation", the Defendants' conduct did not improve over the ensuing decade.

392. The numerous examples described herein further bolster these conclusions, and demonstrate that Defendants continue to aggressively target children with pervasive and integrated promotional campaigns.

393. The American Heart Association ("AHA") recently declared the UPF industry's attempts at self-regulating to be inadequate, finding "There are still companies that do not participate and many of the foods allowed to be marketed to children under these voluntary standards are still unhealthy".[425]

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[421] Id.
[422] William Christeson et al., *Still Too Fat to Fight*, Mission: Readiness Report, Sept. 2012.
[423] Id.
[424] Id.
[425] American Heart Association, *Unhealthy and Unregulated: Food Advertising and Marketing to Children*, (Last updated Apr. 2019).

394. Despite these voluntary standards, AHA found that children were still "regularly exposed to advertising and marketing through television, the internet, social media, magazines, schools, product placements, video games, cell phones, and other means…Young children are especially vulnerable to these marketing and advertising strategies because they are developmentally less able to comprehend their intent".[426]

395. The AHA found that "Unhealthy food marketing aimed at children and teens is a significant contributor to poor diet quality and diet-related diseases worldwide" and concluded that "the American Heart Association sees no ethical, political, scientific, or social justification for marketing low-nutrient, high-calorie foods to children".[427]

396. A 2019 review by the Center for Science in the Public Interest ("CSPI") found that ads marketing unhealthy UPF at children were growing, and that more and more ads targeting children failed to comply with the UPF industry's voluntary guidelines.[428]

397. CSPI found that UPF marketing "plays a key role" in poor health outcomes in children, and described the environment American children live in:

> "In addition to television advertisements, children are exposed to food and beverage marketing in schools, retail stores, restaurants and movie theaters and through radio, print, websites, mobile devices, contests, events, and sponsorships. The ubiquitous, unavoidable chorus of food messaging shapes social norms, children's food preferences, and, ultimately, their health".[429]

398. CSPI found that UPF ads "undermine parents' ability to guide their children's food and beverage choice, as parents have to counter the sophisticated psychological research and marketing techniques used by food and beverage companies. Marketing aimed at children

[426] Id.
[427] Id.
[428] Amanda Reat et al., *Changing the Channels: How Big Media Helps Big Food Target Kids (and What to Do about it)*, Center for Science in the Public Interest, Nov. 2019.
[429] Id.

can strain parent-child relationships as they repeatedly put parents in a position of negotiating over food".[430]

399. A more recent review similarly found that "industry self-regulations contain numerous loopholes and have not demonstrably reduced most types of food marketing directed to children, nor substantially improved the nutrition of marketed products".[431]

400. Despite warning after warning, unfair UPF marketing to children remains widespread.

401. Defendants have known for decades that targeting children with unhealthy UPF was fundamentally unfair, "a direct threat to the health" of children, and would lead to disastrous health outcomes. Nevertheless, they continue to inundate American children with unfair and deceptive marketing.

402. Defendants continue to target children with UPF marketing for the same reason Big Tobacco targeted children with cigarette marketing: UPF companies "view young people as potential lifelong loyal customers. Marketing to hook young people on their products represents a highly profitable investment, while potential regulation of food marketing to adolescents presents a significant business risk".[432]

VII. The International Consensus: UPF are Uniquely Harmful, Require Warnings, and Should Not be Marketed to Children

403. While the explosion of UPF occurred first in the US, the UPF industry eventually reached a saturation point that limited the potential for further profit growth within the United States.

[430] Id.
[431] Jennifer L. Harris et al., *Hooked on Junk: Emerging Evidence on How Food Marketing Affects Adolescents' Diets and Long-Term Health*, Curr. Addict. Rep., Nov. 2020.
[432] Id.

404. As such, the UPF industry, and Defendants specifically, began to use the same playbook described above in country after country throughout the globe.

405. The invariable result: unprecedented increases in noncommunicable diseases including diabetes, fatty liver disease, and numerous others in populations across the world.

406. An international consensus has emerged that UPF is uniquely harmful, that UPF manufacturers have caused massive increases in chronic diseases and human suffering, that UPF requires warnings, and that marketing UPF to children is inherently unfair.

407. Public Health Agencies and Governmental Agencies throughout the world have endorsed the appropriateness of the NOVA System, the UPF Categorization, and recognize the massive societal harms caused by Defendants, and UPF generally.

408. For example, the Public Health Association of Australia ("PHAA") found that "Action is needed across all levels of government, food industry, and the public domain to reduce the production, consumption and consequential impact of ultra-processed foods on population and planetary health".[433]

409. PHAA explained that:

> "Evidence from over 500 studies across more than 14 countries and summarized in 23 systematic reviews published to date, shows consumption of ultra-processed foods is a major contributor to global burden of disease.
>
> Large-scale population and experimental studies demonstrate a direct association between ultra-processed food consumption, poor quality eating patterns and negative health outcomes such as weigh gain, non-communicable diseases (e.g., Type 2 Diabetes, cardiovascular disease, and impaired mental and cognitive health and increased mortality…
>
> Poor health outcomes associated with ultra-processed food consumption result from both: a) nutrient profile of ultra-processed foods which typically include added sugars, salt and industrial fats; and b) non-nutrient mediated mechanisms such as deconstruction of the

[433] Public Health Association Australia, *Ultra-Processed Foods: Policy Position Statement*, PHAA, Jun. 2019.

food matrix of the presence of cosmetic additives and contaminants that may impair endocrine function and gut-satiety signaling".[434]

410. PHAA recommended that restrictions on marketing UPF to children should be enacted, as well as food labeling requirements to identify the level of processing, and "fiscal policies to disincentivize the production and consumption" of UPF.[435]

411. The World Health Organization and the Food and Agriculture Organization of the United Nations issued a joint statement that "A large and growing body of evidence suggests that consumption of highly processed foods described as "ultra-processed" foods (UPF) by the NOVA classification scheme…is associated with negative health outcomes. These include risk of premature mortality, cancer, cardiovascular diseases, overweight, obesity, and type 2 diabetes, as well as impaired mental, respiratory and gastrointestinal health".[436] The joint statement found that the "evidence suggests that the associations with negative health effects go beyond their fat, sodium, and sugar content".[437]

412. The Consumer Federation of America ("CFA") states that "an increasing body of evidence fingers UPFs as a key culprit behind our dietary woes".[438] The CFA explains that UPF "may effectively 'hijack' the brain and override satiety signals that prevent us from overeating less processed foods…certain chemicals in UPFs may affect us in more complex and nefarious ways as well, degrading the gut microbiome, disrupting the endocrine system, and even stymying healthy brain development".[439]

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[434] Id.
[435] Id.
[436] Food & Agriculture Organization of the United Nations and World Health Organization. *What are healthy diets? Joint Statement by the Food and Agriculture Organization of the United Nations and the World Health Organization*, 2024.
[437] Id.
[438] Consumer Federation of America, *Why they Matter and What to Do About It.* CFA, 2024
[439] Id.

413. The Brazilian Health Ministry counsels people to "avoid ultra-processed foods", explaining that "as a result of their formulation and presentation, they tend to be consumed in excess, and displace natural or minimally processed foods. Their means of production, distribution, marketing, and consumption damage culture, social life, and the environment".[440]

414. The Dietary Guidelines for Brazilians emphasize that UPF

> "are now often reformulated and advertised as if they are healthy, being labelled as for example 'light' or 'diet', or low in fat or sugar, or free from trans fats, or high in fibre or vitamins and minerals. These adjustments may improve the products which however remain ultra-processed and unhealthy".[441]

415. Ministry of Health Brazil explains that UPF "disturb mechanisms located in the digestive system and the brain that ensure that the intake and expenditure of dietary energy is balanced. These mechanisms tend to underestimate the energy contained in ultra-processed foods" and lead to "excess consumption".[442]

416. The Brazilian Health Ministry found that UPF "are promoted and advertised incessantly on television and radio, newspapers and magazines, the internet, social media, at point of sale, and on packaging, and with discounts and giveaways. Much of this propaganda is aimed at children and young people".[443]

417. According to the Brazilian Health Ministry, UPF advertising "often conveys incorrect or incomplete information about diet and health and mainly affects children and youngsters".[444]

418. The "Dietary Guidelines for Indians" states that UPFs are "known to increase the risk of non-communicable diseases like diabetes, hypertension, cardiovascular diseases, etc." and

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[440] Ministry of Health Brazil, *Dietary Guidelines for the Brazilian Population*, Secretariat of Health Care. Primary Health Care Department., 2015.
[441] Id.
[442] Id.
[443] Id.
[444] Id.

that UPFs should be avoided or restricted.[445] The Indian guidelines also emphasize that "enriching and fortifying UPFs with nutrients does not make them wholesome or healthy".[446]

419. France's Public Health Agency recommends "avoiding the consumption of ultra-processed products".[447]

420. The French National Assembly's Parliamentary Office for Scientific and Technological Assessment stated:

> "a number of consistent studies have found a significant association between consumption of ultra-processed foods and the risk of excess weight and obesity, Type 2 Diabetes, cardiovascular disease and associated mortality, hypertension, depression and overall mortality…the accumulation of epidemiological studies with identical results, as well as the plausibility of the biological mechanisms detailed below, provide **strong arguments for causality**".[448] (emp. orig.)

421. Among those biological mechanisms, the French Parliamentary Office explained that the modification of the food matrix, intensified by the use of flavourings "override the homeostatic control of food intake" and alter "our ability to assess the energy content of foods".[449] The Parliamentary Office continued "ultra-processed foods encourage **excessive energy intake** and are even associated with "**food addiction**".[450] (emp. orig.)

422. The French Parliamentary Office further explained,

> "the poor nutritional composition of ultra-processed foods and their possible over-consumption are not sufficient to explain their effect on health. The associations identified by most of the above-mentioned epidemiological studies remain despite statistical adjustments to energy intake and the nutritional quality of the diet. It would therefore seem that other mechanisms are involved, which justifies the relevance and usefulness of this new type of classification.

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[445] ICMR-NIN Expert Committee, *National Institute of Nutrition: Dietary Guidelines for Indians—2024*, ICMR-National Institute of Nutrition, (Revised May 2024).
[446] Id.
[447] Sante Publique France, *Recommendations Concerning Diet, Physical Activity and Sedentary Behaviour for Adults,* PNNS, Aug. 2019.
[448] Parliamentary Office for Scientific and Technological Assessment, *Briefing 35: Ultra-Processed Foods*, National Assembly of France, Jan. 2023.
[449] Id.
[450] Id.

> In addition to the physical impacts on food texture, transformations in the food matrix are likely to affect the digestibility and bioavailability of ingested nutrients and the possible synergies that may exist between different compounds.
>
> Moreover, ultra-processed foods generally contain various additives (emulsifiers, colourings, flavour enhancers, sweeteners, etc.) whose impact on health may be detrimental in the long term. Studies suggest that some additives may disrupt the gut microbiota or the endocrine system, or have carcinogenic or inflammatory effects…
>
> In addition to these additives, which are included in the list of ingredients, other potentially harmful compounds may be food in ultra-processed foods, which may contribute to their harmful nature. During processing, especially intense processing, some molecules may be broken down to form new compounds. Heat treatments are known to generate numerous molecules (acrylamide, acrolein, etc.) with carcinogenic, cardiometabolic and diabetogenic effects. Substances contained in food packaging (such as bisphenol A and phthalates) can also contaminate these foods...These various molecules increase the risk of a cocktail effect, i.e. the effect of the interacting substances is greater than the sum of the individual effects.[451]

423. The French Parliamentary Office concluded that "current knowledge already calls for the implementation of measures to **reduce the consumption** of these foods, an objective set by the National Nutrition and Health Programme".[452] (emp. orig.)

424. The French Parliamentary Office also concluded that "the abolition of commercial advertising during youth programmes broadcast on French public television must be extended to all programmes, as children are exposed to advertising at all hours".[453]

425. The Heart and Stroke Foundation of Canada advises people to "avoid ultra-processed foods".[454]

426. The Israeli Ministry of Health counsels that "it is important to reduce the consumption of ultra-processed foods as much as possible since they come with a substantial

[451] Id.
[452] Id.
[453] Id.
[454] JC Moubarac, *Ultra-processed foods in Canada: consumption, impact on diet quality and policy implications*, 2017, Montréal: TRANSNUT, University of Montreal, Dec. 2017.

health cost. In recent years studies have been confirming an association between the degree of food processing and health effects".[455]

427. In the Israeli Nutrition Recommendations, the Israeli Ministry of Health[456] stated that "the health implication of the consumption of ultra-processed food include: an increase in the risk of diabetes, cardiovascular disease, obesity, fatty liver, certain types of cancer, damage to the microbiome, an increase in the risk of mental illness and more".[457]

428. The Israeli Health Ministry explained UPF encourage "subconscious eating" and "as a result of their composition and method of marketing we tend to consume exaggerated amounts of them".[458]

429. The Israeli Health Ministry stated that while chemical additives in UPF undergo an approval process, "the effect of their long term consumption and also the cumulative effect of the consumption together is not known".[459]

430. The Israeli Ministry of Health concluded that UPF's "manufacture, distribution, marketing and consumption are injurious to health, culture, social life and the environment" and that marketing of UPF to children should be restricted.[460]

431. The Peruvian Ministry of Health advises people to "protect your health by avoiding ultra-processed food consumption" and that people should avoid "ultra-processed foods to prevent disease".[461]

[455] State of Israel Ministry of Health, *Processed Food*, Ministry of Health, (Last updated 2024).
[456] Israeli Ministry of Health, *Nutritional Recommendations*, Ministry of Health, 2019
[457] Id.
[458] Id.
[459] Id.
[460] Id.
[461] Mirko Luis Lázaro Serrano & César Hugo Domínguez Curi, *Guías alimentarias para la población Peruana*, Ministerio de Salud. Instituto Nacional de Salud, 2019, (translation to English).

432. The Uruguayan Ministry of Health explains that "ultra-processed products 'cheat' the mechanisms that regulate appetite. They have certain characteristics that make the brain and digestive system underestimate the calories we eat".[462]

433. Uruguay's Ministry of Health advises people to "avoid the consumption of ultra-processed products".[463]

434. The Malaysian Ministry of Health advises people to "limit intake of ultra-processed foods" and to "be aware that advertising of ultra-processed products dominates commercial advertising of food; it often conveys incorrect or incomplete information about diet and health".[464]

435. The European Association for Study of the Liver ("EASL") found that "alcohol and ultra-processed foods represent key health challenges in the 21st century" and that UPF consumption is a "major driver of liver-related morbidity and mortality".[465]

436. EASL reported that "many European countries have seen a striking increase in the consumption of ultra-processed foods" and that "children in Europe are regularly exposed to marketing that promotes ultra-processed foods…Such targeting of children and adolescents by food and beverage commercials, in particular those embedded in children's TV programmes, electronic media (e.g., video games and DVDs), and social media, has been shown to drive consumption".[466]

[462] Miniterio de Salud de Uruguay, *Guía alimentaria para la población Uruguaya: para una alimentación saludable, compartida y placentera*, Área Progamática de Nutrición, (Last updated 2019), (translation to English).
[463] Id.
[464] Minsitry of Health of Malaysia, *Malaysian dietary guidelines 2020*, NCCFN, 2021.
[465] Tom H. Karlsen et al., *The EASL-Lancet Liver Commission, protecting the next generation against liver disease complications and premature mortality*, The Lancet Commissions, Jan. 2022.
[466] Id.

437. As a result, EASL found that "sugar-sweetened beverage consumption is now one of the leading causes of childhood and adult obesity and associated NAFLD".[467]

438. EASL concluded that given the harms caused by marketing UPF to children, "we call for attention to unregulated narrowcasting of marketing messages to mobile phones by digital and social media; experience from the tobacco industry has shown that the only effective means to protect children is through a complete ban".[468]

439. EASL also called for "the implementation of a European-wide, mandatory, government-led, simple, informative, and uniform front-of-pack labelling approach based on the latest scientific research and guidelines" to "help encourage consumers to reduce their intake of ultra-processed foods".[469]

440. The Ecuadorian Ministry of Public Health advises people to "avoid the consumption of ultra-processed foods", noting that many health problems, including obesity, diabetes, hypertension, metabolic syndrome, gastric and colorectal cancer, are related to UPF consumption.[470]

441. In discussing this conclusion, the Ecuadorian Ministry of Public Health reported major increases in the sales of UPF were accompanied by significant increases in body mass, and that "One of the determinants that explain these trends is the aggressive marketing strategy used by the processed foods and sugary drinks industry, which is mainly directed at children and adolescents".[471]

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[467] Id.
[468] Id.
[469] Id.
[470] Ministerio de Salud del Ecuador & Organización de las Naciones Unidas para la Alimentación y la Agricultura, *Guías alimentarias basadas en alimentos del Ecuador*, GABA, Febr. 2021, (translation to English)
[471] Id.

442. Similarly, the Maldives Ministry of Health recommends people limit the intake of UPF.[472]

443. The Food and Agriculture Organization of the United Nations ("FAO") found that "the significance of food processing, and in particular of ultra-processed food, is now generally recognized".[473] In discussing the scientific evidence of UPF's harms, FAO found that the scientific studies "show plausible, significant and graded associations between the dietary share of ultra-processed foods and the occurrence or incidence of several non-communicable diseases, including obesity and obesity-related outcomes, cardiovascular and metabolic diseases, breast and all cancers, depression, gastrointestinal disorders, frailty in the elderly, and also premature mortality".[474]

444. Francis Collins, director of the United States National Institutes of Health ("NIH") recommended that Americans should "work to eliminate or at least reduce ultra-processed foods in your diet".[475]

445. On December 5, 2024, Dr. Robert Califf, the Commissioner of the United States Food and Drugs Administration, testified that ultra-processed food "is probably addictive".[476] Commissioner Califf explained that "the food industry has figured out that there is a combination of sweet, carbohydrate, and salt that goes to our brains and I think its addictive, that's my opinion. And I think it's the same neural circuits that are involved in opioid addiction and other kinds of addiction that we have. And they've studied this, again, we don't have access to their

[472] Ministry of Health, Republic of Maldives. Food Based Dietary Guidelines for Maldives, 2019.
[473] Carlos A. Monterio et al., *Ultra-processed foods, diet quality, and health using the NOVA classification system*, Food and Agriculture Organization of the United Nations, 2019.
[474] Id.
[475] Id.
[476] United States Senate Committee on Health, Education, Labor & Pensions. Testimony of FDA Commissioner Dr. Robert Califf, December 5, 2024.

research data like we do in the human medical products arena…There are actually three or four pathways involved here".[477]

VIII. The Meeting in Minneapolis: Defendants' Conspiracy Against American Children

446. Behind closed doors, Defendants acknowledge that the international consensus is true. And for decades, Defendants have understood the consequences of their actions.

447. On April 8, 1999, the CEOs of America's largest food companies met in Minneapolis.[478] The leaders of Nestle, Kraft, Nabisco, General Mills, Procter & Gamble, Coca-Cola, Mars, Pillsbury, Cargill and Tate & Lyle were in attendance.[479] Executives from Defendants Kraft Heinz, Mondelez, Post Holdings, General Mills, Coca-Cola, Mars, or their predecessors, were in attendance.

448. James Behnke, CTO of Pillsbury (which was subsequently acquired by General Mills), and Michael Mudd, VP of Kraft, called the meeting to warn the CEOs that their companies had gone too far in marketing their products, and engineering UPF to maximize their consumption.[480]

449. In the months prior, they had been engaged with a group of food science experts who were painting an increasingly grim picture of the public's ability to cope with the industry's formulations.[481] The scientific presentations, from the body's fragile controls on overeating to the hidden power of UPF to make people feel hungrier still, convinced Behnke & Mudd that intervention was necessary.[482]

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[477] Id.
[478] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at xi, (2013).
[479] Id. at xii.
[480] Id. at xiv-xv.
[481] Id. at xiv.
[482] Id. at xiv-xv.

450. Behnke & Mudd convened the unusual meeting of their competitors' CEOs to address these findings.

451. Mudd led the initial presentation by saying:

> "I very much appreciate this opportunity to talk to you about childhood obesity and the growing challenge it presents for us all.
>
> Let me say right away at the start, this is not an easy subject. There are no easy answers—for what the public health community must do to bring this problem under control, or for what industry should do as others seek to hold it accountable for what has happened.
>
> But this much is clear: For those of us who've looked hard at this issue, whether they're public health officials or staff specialists in your own companies, we feel sure that the one thing we shouldn't do is nothing.
>
> Each of us who knows the issue might have our own thoughts on timing, or the scope of our response, or the specific tactics. But we all agree that "no action" is ultimately a path to more public health and public relations problems."[483] (emp. orig.)

452. Mudd then explained, "in a nutshell, the food industry is being portrayed as a major cause of an epidemic of obesity and all its disease-related effects. The proposed remedies are troubling—taxes to control consumption and regulations to restrict marketing and advertising, especially to kids".[484]

453. The presentation noted that "some of the voices are traditional critics of the food industry", including "industry's old friend, former FDA Commissioner David Kessler", but that

> "more important, we're also hearing sincere concerns about obesity from many of industry's traditional allies, experts whose points of view industry has shared and respected, and who have acted as spokespeople on behalf of industry's own organizations. Among all these voices there is near unanimous agreement—and great frustration, I might add—that obesity is rising to epidemic proportions, with devastating public health consequences".[485]

[483] Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).
[484] Id.
[485] Id.

454. Among the "devastating public health consequences" were a then doubling in childhood obesity rates, "massive social costs they estimate at anywhere from $40 to $100 billion a year", and an estimated 300,000 deaths a year.[486]

455. The presentation noted that obesity "changed dramatically in the late 1980s and early 1990s when obesity took a big jump upwards. And this trend appears to be continuing".[487]

456. Mudd then explained that "experts are really worried" about children, noting that "we have the fattest and most unfit generation of children ever and it's hard to imagine that this will not translate into a generation of obese adults", and that these children would be "at a higher risk of developing chronic diseases such as diabetes, heart disease, hypertension and cancer".[488]

457. Mudd explained that "the increase in obesity can't be caused by genetics, because genes just don't change that much in a 10 or 20 year period".

458. Mudd then flashed a slide stating, "What's driving the increase? Ubiquity of inexpensive, good-tasting, super-sized, energy-dense foods" that were manufactured by the companies in attendance.[489]

459. A quote by a public health official followed: "As a culture, we have become upset by the tobacco companies advertising to children, but we sit idly by while the food companies do the very same thing. And we could make a claim that the toll taken on the public health by a poor diet rivals that taken by tobacco".[490]

[486] Id.
[487] Id.
[488] Id.
[489] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at xvii-xviii, (2013).
[490] Id. at xviii.

460. Mudd then asked "With all this, can the trial lawyers be far behind?", predicting a wave of mass litigation against food industries on similar public health grounds to the recent tobacco litigation.[491]

461. He continued "If anyone in the food industry ever doubted there was a slippery slope out there, I imagine they are beginning to experience a distinct sliding sensation right now".[492]

462. Mudd warned that the food industry may be approaching the same moment the tobacco industry encountered in 1964 with the release of the 1964 U.S. Surgeon General Report, and implored his fellow executives that "we cannot pretend food isn't part of the obesity problem…if you mapped categories of food advertising, especially advertising to kids, against the Food Guide Pyramid, it would turn the Pyramid on its head".[493]

463. Mudd then urged the companies to create a coalition to implement a national program focused on prevention of obesity, "focused specifically on kids".[494] Mudd concluded his remarks by emphasizing: "we have the luxury of doing something before the problem becomes a crisis for us".[495]

464. The presentation landed with a thud.

465. When Mudd concluded, Stephen Sanger, CEO of General Mills, rose to speak, denigrating the fickleness of consumers' health concerns and those of their "ivory tower" advocates.[496]

[491] Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).
[492] Id.
[493] Id.
[494] Id.
[495] Id.
[496] Michael Moss, Salt Sugar Fat: How the Food Giants Hooked Us, at xx, (2013).

466. Sanger stated that industry always weathered these squalls, that General Mills would not pull back, that he would push his people onward, and that his peers should do the same: "Look we're not going to screw around with the company jewels here and change the formulations because a bunch of guys in white coats are worried".[497]

467. No one spoke to counter Sanger's response—it effectively ended the meeting, and the presentation was a failure.[498] All of the UPF companies present spurned the idea.[499] Nothing was done, and the UPF industry continued headlong despite having express knowledge of the consequences of their actions.

468. Despite having actual knowledge of the harm they are inflicting on America's children, Defendants and the UPF industry have not changed their ways. Defendants have spent the last 25 years inundating children with targeted marketing for their UPF.

469. Meanwhile, America's kids get sicker and sicker.

470. Instead of improving their conduct, "the industry has responded with a ferocious campaign against regulation".[500]

471. UPF companies spent $106 million on political lobbying in the United States in 2023—almost twice as much as the tobacco and alcohol industries combined.[501]

472. Commentors have noted that "there are striking similarities" in the way that the UPF and "tobacco industries have responded to public mistrust, damning scientific evidence, and calls for legal and legislative actions".[502]

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[497] Id. at xx-xxi.
[498] Id. at xx.
[499] Id. at xxi.
[500] Madeleine Speed et al., *Deny, Denounce, Delay: the battle over the risk of ultra-processed foods*, Financial Times, May 22, 2024.
[501] Id.
[502] Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History, Big Tobacco Played Dirty and Millions Died. How Similar is Big Food?*, Milbank Q., Mar. 2009.

473. Like Big Tobacco, the UPF industry "seduces children…infiltrates schools, buys loyalty from scientists, and pressures administration officials into accepting weak and ineffective nutrition policies".[503]

474. The UPF industry is "organized and politically powerful".[504] It is "represented by lobbyists, lawyers and trade organizations" employed to protect it from changing its ways.[505]

475. Like the tobacco industry before it, the UPF industry uses the same master playbook to deflect criticism of its actions.[506] Their strategy: "deny, denounce, delay".[507]

476. The UPF industry's tactics include a focus on personal responsibility, vilification of critics, criticizing studies that hurt industry as "junk science", arguing that there are no good or bad foods and that no foods should be targeted for change, and the vast sowing of doubt.[508]

477. The personal responsibility strategy "was first deployed by tobacco companies in 1962 as a reason to keep on smoking".[509] It has been widely used by the UPF industry as well to deflect blame and suggest that people should keep consuming UPF.

478. Another Big Tobacco strategy utilized by the UPF industry is to bias research findings.[510] Research publications sponsored by the UPF industry "showed systemic bias from industry funding".[511] Articles sponsored exclusively by UPF companies are "four-times to eight

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[503] Id.
[504] Id.
[505] Id.
[506] Id.
[507] Madeleine Speed et al., *Deny, Denounce, Delay: the battle over the risk of ultra-processed foods*, Financial Times, May 22, 2024.
[508] Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History, Big Tobacco Played Dirty and Millions Died. How Similar is Big Food?*, Milbank Q., Mar. 2009.
[509] Robert H. Lustig, *Ultraprocessed Food: Addictive, Toxic, and Ready for Regulation*, Nutrients., November 2020
[510] Rob Moodie et al., *Profits and Pandemics: Prevention of Harmful Effects of Tobacco, Alcohol, and Ultra-Processed Food and Drink Industries*, Lancet., Feb. 2013.
[511] Id.

times more likely to have conclusions favorable to the financial interests of the sponsoring company than those that were not sponsored" by UPF companies.[512]

479. The UPF industry spends millions of dollars misinforming the public and policymakers by generating outcome driven "research" studies that undermine evidence of harm.

480. The UPF industry also distributes millions of dollars each year to policy makers through direct and indirect contributions and gifts.[513] For example, approximately 2/3 of the members of the U.S. Congress declare funding received from the food industry.[514]

481. Hired industry experts and front groups pressure policy makers across a number of different avenues.[515] These "industry actors market and generate doubt" in efforts to delay any proposed regulations or taxation.[516]

482. The UPF industry also affirmatively sought to rig the legal system in ways that would keep them from having to answer for the harms they were knowingly creating.

483. For example, within a few years of Michael Mudd's presentation, Defendants utilized a front group named the American Legislative Exchange Council ("ALEC") to lobby Federal and State legislative bodies to pass laws to eliminate the rights of victims to sue UPF companies for their conduct.[517]

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[512] Id.
[513] Simon Capewell & Ffion Lloyd-Williams, *The Role of the Food Industry in Healthy, Lessons from Tobacco?*, Br. Med Bull., Mar. 2018.
[514] Id.
[515] Id.
[516] Id.
[517] SOURCEWATCH, *ALEC Corporations*, CMD, (Revised Oct. 2023), https://www.sourcewatch.org/index.php?title=ALEC_Corporations; ALEC Board of Directors, *Common Sense Consumption Act*, ALEC, (Revised Sept. 2017), https://alec.org/model-policy/commonsense-consumption-act/.

484. The UPF industry seeks to "co-opt policy makers and health professionals" and to substitute "ineffective interventions such as education or 'individual choice', self-regulation or voluntary agreements".[518]

485. Such voluntary actions are counterfeit progress: their purpose is not to cause effective change but to prevent it. These strategies also have roots "in the tobacco arena when voluntary actions by industry appeared helpful but were not and served to stall government action for many years".[519]

486. Like the tobacco industry, the UPF industry exploits "the concept of inequities to defend themselves against public health policies, such as increasing taxes on harmful products or regulating their marketing. They do this by claiming that such policies would harm the poorest the most".[520]

487. In reality, the UPF industry causes disproportionate harm in poorer communities by inundating these more vulnerable populations with marketing.

488. As the Director-General of the World Health Organization explained, the tactics used by the UPF industry to prevent change are identical to those used by the Tobacco industry:

> "Efforts to prevent noncommunicable diseases go against the business interests of powerful economic operators…It is not just Big Tobacco anymore. Public health must also contend with Big Food, Big Soda, and Big Alcohol. All of these industries fear regulation, and protect themselves using the same tactics.
>
> Research has documented these tactics well. They include front groups, lobbies, promises of self-regulation, lawsuits, and industry funded research that confuses the evidence and keeps the public in doubt.

[518] Rob Moodie et al., *Profits and Pandemics: Prevention of Harmful Effects of Tobacco, Alcohol, and Ultra-Processed Food and Drink Industries*, Lancet., Feb. 2013; Simon Capewell & Ffion Lloyd-Williams, *The Role of the Food Industry in Healthy, Lessons from Tobacco?*, Br. Med Bull., Mar. 2018.
[519] Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History, Big Tobacco Played Dirty and Millions Died. How Similar is Big Food?*, Milbank Q., Mar. 2009.
[520] WHO Regional Office for Europe, *Commercial Determinants of Noncommunicable Diseases in the WHO European Region*, SNI, Jun. 2024.

> Tactics also include gifts, grants, and contributions to worthy causes that cast these industries as respectable corporate citizens in the eyes of politicians and the public. They include arguments that place the responsibility for harm to health on individuals, and portray government actions as interference in personal liberties and free choice.
>
> This is a formidable opposition. Market power readily translates into political power. Few governments prioritize health over big business. As we learned from experience with the tobacco industry, a powerful corporation can sell the public just about anything.
>
> Let me remind you. Not one single country has managed to turn around its obesity epidemic in all age groups. This is not a failure of individual will-power. This is a failure of political will to take on big business".[521]

489. The parallel strategies used by the Tobacco and UPF industries, and the tenacity with which they are used, "are unsurprising in view of the flow of people, funds and activities across these industries, which also have histories of joint ownership".[522]

490. Meanwhile, Defendants callously cause America's children to get sicker and sicker.

491. Several commenters have noted that "the state of the food environment for US consumers bears a striking resemblance to the US environment in the 1950s during the tobacco epidemic, before the US federal government regulated the availability of tobacco products".[523]

492. Kelly Brownell, the Director of the World Food Policy Center noted that "in December 1953, the CEOs of the Major Tobacco companies met secretly in New York City. Their purpose was to counter the damage from studies linking smoking to lung cancer".[524] What followed "were decades of deceit and actions that cost millions of lives".[525]

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[521] Margaret Chan, *WHO Director-General addresses health promotion conference: Opening address at the 8th Global Conference on Health Promotion*, WHO, Jun. 10, 2013.
[522] Rob Moodie et al., *Profits and Pandemics: Prevention of Harmful Effects of Tobacco, Alcohol, and Ultra-Processed Food and Drink Industries*, Lancet., Feb. 2013.
[523] Terra L. Fazzino, US Tobacco Companies Selectively Disseminated Hyper-Palatable Foods into the US Food System: Empirical evidence and current implications, Addiction, Sept. 2023.
[524] Kelly D. Brownell & Kenneth E. Warner, *The Perils of Ignoring History, Big Tobacco Played Dirty and Millions Died. How Similar is Big Food?*, Milbank Q., Mar. 2009.
[525] Id.

493. Brownell compared Big Food to Big Tobacco, explaining that there are "significant similarities in the action that these industries have taken in response to concern that their products cause harm…the world cannot afford a repeat of the tobacco history, in which industry talks about the moral high ground but does not occupy it".[526]

494. Unfortunately that is exactly what has occurred.

495. Almost 15 years after his failed presentation to major UPF company CEOs, Michael Mudd wrote "I left the industry when I finally had to acknowledge that reform would never come from within. I could no longer accept a business model that puts profits over public health—and no one else should have to, either".[527]

496. Mudd continued,

> "as more is revealed about their deliberate indifference, food companies must be made to change their worst practices. After years of foot dragging and hundreds of millions of dollars in lobbying fees, it's obvious the industry won't change on its own. Quite simply, change will have to be forced—by public pressure, media attention, and litigation".[528]

497. Defendants, and the UPF industry, had a momentous opportunity to change their ways in 1999. CEOs from the largest UPF companies met secretly, sat together in the same room, and looked squarely at the consequences of their actions.

498. They were told that their conduct was directly causing "devastating public health consequences" to America's children. They knew that their actions had caused "the fattest and most unfit generation of children ever" and were killing hundreds of thousands of Americans.[529]

[526] Id.
[527] Michael Mudd, *How to Force Ethics on the Food Industry*, The New York Times, Mar. 16, 2013.
[528] Id.
[529] Michael Mudd, Remarks for ILSI CEO Dinner, (Draft April 2, 1999).

499. These CEOs understood that their actions were unconscionable, and that they should expect to be sued for their conduct. They were asked rhetorically, "with all this, can the trial lawyers be far behind?"[530]

500. These CEOs knew that they had "the luxury of doing something" before the problem became a crisis.[531]

501. But instead, Defendants turned their back on America's children and spent the next 25 years callously grasping at profits, despite having actual knowledge of the public health crises they were causing.

502. Like the Tobacco industry before them, defendants knowingly disregarded unspeakable suffering they were inflicting on millions of Americans, and engaged in decades of deceit.

IX. Plaintiff Specific Allegations

503. Plaintiff is a victim of Defendants' predatory profiteering.

504. Plaintiff Bryce Martinez was diagnosed with Type 2 Diabetes and Non-Alcoholic Fatty Liver Disease at age 16. These diseases did not exist in children prior to Defendants' conduct. Plaintiff is reasonably likely to develop sequalae and other complications of these diseases.

505. Defendants marketing targeted children, including Plaintiff, with unfair and deceptive messages regarding their UPF.

506. Defendants also failed to warn children, including Plaintiff, that their UPF was harmful and could lead to the injuries suffered by Plaintiff. Defendants did not disclose that they had not tested the safety of chronic exposures to their UPF, that their UPF causes unique health

[530] Id.
[531] Id.

risks independent of macronutrient content, that their UPF are potentially addictive substances, or that their UPF are engineered to be overconsumed.

507. As a result of Defendants' conduct, Plaintiff was chronically exposed to harmful levels of Defendants' UPF.

508. For example, prior to Plaintiff's diagnosis, Plaintiff regularly ingested:

a. UPF from Defendant Kraft Heinz, including but not limited to those bearing the brand names Kraft, Heinz, Oscar-Meyer, Capri Sun, Jell-O, Philadelphia, Bagel Bites, Cool Whip, Crystal Light, Jet-Puffed, Stove Top, Boca Burger, Corn Nuts and A1;

b. UPF from Defendant Mondelez, including but not limited to those bearing the brand names Nabisco, Oreo, Ritz, Wheat Thins, Chips Ahoy! Sour Patch Kids, Trident, Swedish Fish, Fig Newtons, Nilla Wafers, and Teddy Grahams;

c. UPF from Defendant Post, including but not limited to those bearing the brand names Oreo O's, Honey Bunches of Oats, Honey Comb, Honey Maid, Pebbles, Raisin Bran, Waffle Crisp, and Farina;

d. UPF from Defendant Nestle, including but not limited to those bearing the brand names Stouffer's, Hot Pockets, Toll House, Gerber, Edy's and Kit Kats;

e. UPF from Defendant PepsiCo, including but not limited to those bearing the brand names Pepsi, Starbucks Bottled, Gatorade, Propel, Crush, Jack's Links, Fritos, Lays, Ruffles, Pop Corners, Tostitos, Cracker Jack, Rold Gold, Sun Chips, Cap'n Crunch, Rice-A-Roni, Ocean Spray and Quaker;

f. UPF from Defendant Coca-Cola, including but not limited to those bearing the brand names Coca-Cola, Diet Coke, Barq's, Minute Maid, Vitamin Water, and Body Armor;

g. UPF from Defendant ConAgra, including but not limited to those bearing the brand names Slim Jim, Healthy Choice, Duncan Hines, Hebrew National, Reddi Whip, Orville Redenbacher's, Act II, Chef Boyardee, Manwich, Mrs. Butterworth's, PAM and Wishbone;

h. UPF from Defendant General Mills, including but not limited to those bearing the brand names Betty Crocker, Cheerios, Chex, Chex Mix, Cinnamon Toast Crunch, Cookie Crisp, Golden Grahams, Haagen-Dazs, Lucky Charms, Nature Valley, Old El Paso, Pillsbury, Reese's Puffs, and Yoplait;

i. UPF from Defendant Kellogg's, including but not limited to those bearing the brand names CheezIt, Club Crackers, Graham Crackers, Kellogg's Waffles, NutriGrain, Pop Tarts, Rice Krispies Treats, Froot Loops, Frosted Mini Wheats, Rasin Bran, Corn Flakes, Corn Pops, Apple Jacks, and Krave;

j. UPF from Defendant Mars, including but not limited to those bearing the brand names Kind, M&M's, Skittles, Snickers, Starburst, Twix, and Ben's;

509. Plaintiff's exposure to Defendants' UPF has resulted in severe life-changing physical infirmities. Defendants' conduct caused and/or contributed to the incurable injuries suffered by the Plaintiff.

510. As a result of Defendants' actions, and Plaintiff's resulting ingestion of Defendants' UPF, Plaintiff suffers from severe chronic illness, and will live the rest of his life sick, suffering, and getting sicker.

511. As a further result of Defendants' actions, and Plaintiff's resulting ingestion of Defendants' UPF, Plaintiff has and will suffer from diminished life expectancy, reduced social and economic prospects, decreased happiness, greater suffering and greater risks of complications. These complications may include amputation, blindness, nephropathy and retinopathy, diabetic neuropathy, coronary disease, congestive heart failure, stroke, cardiovascular mortality, nerve damage, kidney damage, hearing impairment, Alzheimer's disease, depression, hepatitis, fibrosis, cirrhosis, liver failure, liver cancer, hepatocellular carcinoma, cancers outside the liver, heart disease and cardiovascular mortality.[532]

COUNT I—NEGLIGENCE

512. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

513. At all relevant times, Defendants had a duty to exercise reasonable care in the manufacturing, designing, researching, testing, producing, supplying, inspecting, marketing, labeling, packaging, selling and distribution of their UPF.

514. Defendants' duty to exercise reasonable care in the advertising and sale of their UPF included a duty to warn Plaintiff and other consumers of the risks and dangers associated with their UPF.

515. At all relevant times, Defendants knew or should have known through the exercise of reasonable care of the dangers associated with the normal and/or intended use of their

[532] Cleveland Clinic, *Steatotic (Fatty) Liver Disease*, Cleveland Clinic, (Last reviewed Sept. 2023), https://my.clevelandclinic.org/health/diseases/15831-fatty-liver-disease.

UPF. In particular, Defendants knew or should have known that their UPF were engineered to be addictive, were engineered to promote overconsumption, contained dangerous and unnatural combinations of nutrients, contained dangerous chemical additives and contaminants, caused unique health hazards independent of nutrient content, that ultra-processing causes human health risks, and that UPF significantly increases the risk of metabolic diseases such as Type 2 Diabetes, Fatty Liver Disease, and other life changing chronic diseases.

516. At all relevant times, Defendants knew, or should have known through the exercise of reasonable care, that ordinary consumers such as Plaintiff would not realize the potential risks and dangers of their UPF.

517. Defendants breached their duty of care by manufacturing, designing, researching, testing, producing, supplying, marketing, selling, and/or distributing their UPF negligently, recklessly, and/or with extreme carelessness and by failing to adequately warn of the risks and dangers of their UPF as described in the allegations above. Such breaches include but are not limited to:

a. Failing to warn Plaintiff and other consumers of the risks and dangers associated with the ingestion of their UPF;

b. Failing to properly test their UPF to determine the increased risk of harm to the endocrine and metabolic systems including Type 2 Diabetes and Fatty Liver Disease caused by the normal and/or intended use of their UPF;

c. Failing to inform Plaintiff that their UPF are potentially addictive substances;

d. Failing to inform Plaintiff that their UPF and are engineered to be overconsumed;

e. Failing to inform Plaintiff that their UPF contain dangerous and unnatural combinations of nutrients;

f. Failing to inform Plaintiff that their UPF contain dangerous chemical additives and contaminants;

g. Failing to inform Plaintiff that their UPF cause unique health risks independent of nutrient content;

h. Failing to inform Plaintiff that ultra-processing causes human health risks;

i. Failing to warn Plaintiff that their UPF significantly increases the risk of Type 2 Diabetes, Fatty Liver Disease, and other life-changing chronic illnesses;

j. Marketing and labeling their UPF as safe when Defendants knew or should have known their UPF were defective and dangerous; and

k. Failing to act like a reasonably prudent company under similar circumstances.

518. Each of these acts and omissions, taken singularly or in combination, were a proximate cause of the injuries and damages sustained by Plaintiff.

519. Defendants knew or should have known that consumers such as Plaintiff would foreseeably suffer injuries as a result of Defendants' failure to exercise ordinary care as described above.

520. Due to Defendants' failure to exercise ordinary care or comply with their duties, Plaintiff was not able to discover the dangers of ingesting Defendants' UPF.

521. Defendants' acts and/or omissions constitute gross negligence because they constitute a total lack of care and an extreme departure from what a reasonably careful company would do in the same situation to prevent foreseeable harm to Plaintiff and other consumers

522. Defendants acted and/or failed to act willfully, and with conscious and reckless disregard for the rights and interests of Plaintiff and other consumers. Defendants' acts and omissions had a great probability of causing significant harm and in fact resulted in such harm to Plaintiff.

523. Based on their strategic and intentional promotion, advertising and marketing history, Defendants reasonably should have foreseen that children would ingest their UPF and suffer lifelong chronic illness. Defendants reasonably should have foreseen the physical and emotional distress this would place on the children and their families.

524. Plaintiff was injured as a direct and proximate result of negligence and/or gross negligence.

525. Defendants' negligence and/or gross negligence was a direct and proximate cause of the injuries, harm, and economic losses that Plaintiff has suffered, and will continue to suffer.

526. Defendants' negligence and/or gross negligence were a substantial factor in causing and/or contributing to Plaintiff's harms.

527. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages and losses for the rest of his life.

528. Defendants' conduct with respect to their design, promotion and sale of their UPF, including their negligent marketing, to Plaintiff and the public, was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT II—FAILURE TO WARN

529. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

530. Defendants were in the business of selling UPF, and Defendants designed, manufactured, marketed and sold UPF that were ingested by Plaintiff.

531. Defendants' UPF were in an unsafe, defective, and unreasonably dangerous condition at the time they left Defendants' possession because they were not accompanied by adequate warnings.

532. In particular, Defendants knew or should have known that their UPF could cause serious injuries, addiction and chronic illness when used in the intended or reasonably foreseeable manner, including but not limited to Type 2 Diabetes and fatty liver disease in children. Defendants failed to give appropriate and adequate warning of such risks. In fact,

Defendants continue to this day to market and sell their products to consumers without adequate warnings of the risks associated with their use.

533. Defendants were aware that UPF posed risks that were known to Defendants and knowable to Defendants in light of scientific and medical knowledge that was generally accepted in the scientific community at the time Defendants designed, manufactured, distributed and sold their UPF.

534. Defendants' UPF are defective because, among other reasons described herein, Defendants failed to warn consumers including Plaintiff, in the labeling, packaging, marketing, promotion and advertising of their UPF that:

a. Their UPF are ultra-processed;

b. Ultra-processing causes human health risks that other foods do not;

c. Their UPF are potentially addictive substances;

d. Their UPF and are engineered to be overconsumed;

e. Their UPF contain dangerous and unnatural combinations of nutrients;

f. Their UPF contain dangerous chemical additives and contaminants;

g. Their UPF cause unique health risks independent of nutrient content; and

h. Their UPF significantly increases the risk of Type 2 Diabetes, Fatty Liver Disease, and other life-changing chronic illnesses.

535. Through aggressive mass marketing campaigns, Defendants targeted children with UPF marketing. The failure of Defendants to adequately warn about its defective UPF and to misleadingly advertise through a variety of marketing campaigns created a danger of injuries that were reasonably foreseeable at the time of labeling, design, manufacture, distribution and sale of their UPF.

536. Ordinary consumers would not have recognized the potential risks of UPF when used in the manner reasonably foreseeable to Defendants.

537. At all relevant times, Defendants could have provided adequate warnings and instructions to prevent the harms and injuries set forth herein, such as providing full and accurate information about the products in advertising, at point of sale, and on the product labels.

538. If Defendants had warned Plaintiff that use of their UPF in an intended or reasonably foreseeable manner would increase their risk of being seriously injured, including but not limited to developing Type 2 Diabetes or fatty liver disease in childhood, Plaintiff would not have ingested their UPF.

539. Defendants caused their UPF to enter the stream of commerce and to be sold to consumers, including Plaintiff, through a variety of channels, including through grocery stores, convenience stores, other retail locations, drive-through locations, and home delivery services.

540. Plaintiff used Defendants' UPF for the purposes and in a manner normally intended, recommended, promoted and marketed by Defendants.

541. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages, and losses for the rest of his life.

542. Defendants' lack of adequate and sufficient warnings and instructions and its inadequate and misleading advertising was a substantial contributing factor in causing the harm to Plaintiff.

543. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT III—BREACH OF IMPLIED WARRANTY

(13 Pa. Stat. Ann. §§2314 et seq.)

544. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

545. Defendants are in the business of manufacturing, supplying, marketing, advertising, warranting, and/or selling UPF.

546. Prior to the time that the Plaintiff purchased and ingested Defendants' UPF, Defendants knew of the uses for which their UPF were intended and impliedly warranted to Plaintiff that their UPF were of merchantable quality and safe and fit for such intended and ordinary uses. Defendants also impliedly warranted to Plaintiff that their UPF were of a certain quality and could be ingested safely.

547. Defendants' warranties included but are not limited to the warranties that their UPF were safe, were not addictive substances, were not engineered to be overconsumed, and did not pose health risks when ingested.

548. Defendants' UPF were neither safe for their intended use nor of merchantable quality, as warranted by Defendants, because their UPF are unreasonably harmful, cause health risks when used as intended, and cause severe injuries to users including Plaintiff.

549. When used as intended or reasonably foreseeable, Defendants' UPF cause increased risks of Type 2 Diabetes, fatty liver disease, and other chronic illnesses.

550. Defendants' UPF were unfit for their ordinary use, were not of merchantable quality, did not conform to the representations made by Defendants, and/or were unfit for their particular purpose when they left Defendants' control.

551. Due to these and other features, Defendants' UPF are not fit for their ordinary, intended use as safe food substances but are instead defective and fail to conform to Defendants' implied warranties.

552. Defendants have breached their implied warranties of merchantability because their UPF were not in merchantable condition when sold, and were defective when sold.

553. Despite having received notice of these defects, Defendants continue to misrepresent the nature of their UPF and breach their implied warranties.

554. At the time Plaintiff purchased and used Defendants' UPF, Defendants knew or should have known that Plaintiff would detrimentally rely on Defendants' misrepresentations regarding safety.

555. Plaintiff purchased or used Defendants' UPF reasonably relying on Defendants' warranties.

556. Plaintiff used Defendants' UPF for the purpose and in the manner intended by Defendants.

557. Plaintiff would not have purchased or ingested Defendants' UPF, or would not have purchased the products on the same terms, had they known the truth about the misrepresentations described above, the facts Defendants failed to disclose, or that Defendants' UPF were unfit for ordinary use or their particular purpose.

558. Defendants' breach of these warranties was a substantial factor in causing Plaintiff's injuries.

559. Plaintiff was injured as a direct and proximate result of Defendants' breach of implied warranties of merchantability. Plaintiff has been harmed by Defendants' failure to deliver merchantable products and have contracted life changing chronic illness as a result. Plaintiff suffered serious injury, harm, damages, economic and non-economic loss, and will continue to suffer such harm, damages, and losses for the rest of his life.

560. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT IV—BREACH OF EXPRESS WARRANTY

(13 Pa. Stat. Ann. §§2313 et seq.)

561. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

562. Defendants are in the business of manufacturing, supplying, marketing, advertising, warranting, and selling UPF.

563. Defendants expressly represented and warranted to Plaintiff, through public statements, press releases, advertising, marketing materials and statements made by Defendants or their authorized agents in direct-to-consumer marketing, advertisements, and labels that their UPF was safe for its reasonably expected and intended use—regular and chronic ingestion.

564. Defendants' warranties included but are not limited to the warranties that their UPF are safe, wholesome, healthy, protective, child-friendly, and/or natural for frequent ingestion.

565. These and other misrepresentations were made directly by Defendants to consumers and end users of Defendants' UPF, constitute express warranties, and became part of the basis of the bargain between the parties and created a collective express warranty that their UPF would conform to Defendants' affirmations and promises.

566. Defendants breached their express warranties about their UPF and their qualities because Defendants' statements about the safety of their UPF were false and their UPF did not conform to those affirmations and promises. Defendants' UPF were not safe, but rather exposed Plaintiff and other consumers to unreasonable risks of adverse health effects including Type 2 Diabetes, fatty liver disease, and other life-changing chronic illnesses.

567. At the time Plaintiff purchased or ingested Defendants' UPF, Defendants knew or should have known that Plaintiff would detrimentally rely on Defendants' misrepresentations regarding safety.

568. Plaintiff used Defendants' UPF for the purpose and in the manner intended by Defendants.

569. Plaintiff could not have discovered the breached warranties or realized the dangers of Defendants' UPF through the use of reasonable care.

570. Plaintiff would not have purchased or ingested Defendants' UPF if they had known the truth about the misrepresentations described above, or that Defendants' UPF were unfit for ordinary use or their particular purpose.

571. The breach of the warranties was a substantial factor in bringing about Plaintiff's injuries.

572. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages, and losses for the rest of his life.

573. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive

damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT V—NEGLIGENT MISREPRESENTATION

574. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

575. At all relevant times, Defendants had a duty to provide Plaintiff and other consumers with true and accurate information about their UPF, including warnings of any risks they knew of or should have known of related to the ingestion of their UPF.

576. Defendants knew or should have known, based on evolving scientific studies and research, of the safety risks associated with their UPF. Defendants knew or should have known that their representations about the safety of their UPF were false, and that they had a duty to both learn and disclose the dangers associated with their UPF.

577. Defendants breached their duty in representing that their UPF have no serious side effects when they knew or should have known that their products did cause serious side effects as described herein.

578. From the time Defendants' UPF were first tested, studied, researched, evaluated, endorsed, manufactured, marketed, and/or distributed, and up to the present, Defendants failed to disclose material facts regarding the health risks of their UPF to Plaintiff or the public.

579. At all relevant times, Defendants conducted sales and marketing campaigns to promote the sale and ingestion of their UPF and willfully deceived Plaintiff and the general public about the health risks and adverse consequences of their UPF.

580. Defendants' misrepresentations included but are not limited to messages in labels and marketing that their UPF are safe, healthy, and should be ingested by children.

581. Defendants failed to exercise ordinary care in their representations concerning their UPF by negligently misrepresenting their UPF's high risk of unreasonable, dangerous, and devastating health conditions, including but not limited to Type 2 Diabetes and Fatty Liver Disease in children.

582. Defendants made such representations and failed to disclose such material facts with the intent to induce consumers, including Plaintiff, into purchasing and ingesting their UPF.

583. Plaintiff and other consumers justifiably relied on Defendants' misrepresentations and nondisclosures to their detriment. Specifically, Plaintiff relied on representations that their UPF were safe to use as expected, when they were not.

584. In reliance on the misrepresentations by the Defendants, Plaintiff was induced to purchase and ingest Defendants' UPF. If Plaintiff had known the true facts and the facts concealed by Defendants, Plaintiff would not have purchased or ingested Defendants' UPF.

585. As a direct and proximate result of the foregoing negligent misrepresentations by Defendants, Plaintiff suffered injuries and damages as alleged herein.

586. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages and losses in the future.

587. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly

negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

588. Due to the above, Defendants are liable to Plaintiff for compensatory and punitive damages to the extent available, in amounts to be proven at trial, together with interest, costs of suit, attorneys' fees and all such other relief as the Court deems proper.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT VI—FRAUDULENT MISREPRESENTATION

589. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

590. Defendants, who engaged in the development, manufacture, marketing, sale and/or distribution of UPF, owed a duty to Plaintiff and other consumers to provide accurate and complete information.

591. Defendants knew or should have known that their UPF significantly increase the risk of Type 2 Diabetes and fatty liver disease in children, along with a range of other life-changing chronic illnesses. These risks were known to Defendants, or should have been known by Defendants, based on several decades of scientific literature and research. Nevertheless, Defendants willfully deceived Plaintiff by concealing these facts from them, which Defendants had a duty to disclose.

592. In addition to monitoring the evolving scientific literature, Defendants were or should have been testing their UPF to ensure they were not harmful to Plaintiff when used in their intended manner.

593. At all relevant times, Defendants conducted sales and marketing campaigns that willfully deceived Plaintiff and other consumers as to the benefits, health risks and consequences of using Defendants' UPF.

594. Defendants fraudulently misrepresented the use of their UPF as safe, healthy, child-friendly, protective, and/or natural, including but not limited to the marketing assertions cited above. Defendants willfully and intentionally failed to disclose and concealed material facts, and made false representations regarding the dangers and safety concerns of the UPF.

595. Defendants concealed and suppressed the true facts concerning their UPF.

596. Defendants knew that these misrepresentations and/or omissions were material, and that they were false, incomplete, misleading, deceptive and/or deceitful when they were made.

597. Defendants made the misrepresentations and/or omissions for the purpose of deceiving and defrauding consumers, including Plaintiff, with the intention of having them act and rely on such misrepresentations and/or omissions.

598. Plaintiff relied, with reasonable justification, on the misrepresentations by Defendants, which induced them to purchase and use Defendants' UPF on a regular and chronic basis. Plaintiff did not know about safety concerns with Defendants' UPF at the time Defendants made their misrepresentations and/or omissions, and Plaintiff did not discover the true facts until after purchasing and using Defendants' UPF, nor could they have done so with reasonable

diligence. Had Plaintiff known the true facts, they would not have purchased or ingested Defendants' UPF.

599. Defendants profited significantly from their unlawful conduct that fraudulently induced Plaintiff and other consumers to purchase dangerous and defective UPF.

600. Consumers, including Plaintiff, required, and should have been provided with, truthful, accurate, and correct information concerning the safety of Defendants' UPF.

601. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages and losses for the rest of his life.

602. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT VII—FRAUDULENT CONCEALMENT

603. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

604. Defendants owed consumers, including Plaintiff, a duty to fully and accurately disclose all material facts regarding their UPF, not to conceal material defects in their UPF, not to place these defective UPF into the stream of commerce, and to fully and accurately label packaging of their UPF. To the contrary, Defendants explicitly and/or implicitly represented that their UPF were safe for chronic ingestion.

605. Defendants fraudulently and deceptively concealed that their UPF were engineered to be addictive, engineered to be over-consumed, and cause increased risks of severe physical injuries in children, such as Type 2 Diabetes and fatty liver disease, in addition to other serious chronic illnesses.

606. Defendants had unique and private access to the ingredients, manufacturing, development, design, production, research and/or testing of their UPF, and thus unique access to material facts regarding the safety of their UPF.

607. Defendants fraudulently and deceptively concealed that they had not adequately researched or tested their UPF to assess their safety before placing their UPF on the market and promoting their UPF to children.

608. At all relevant times, Defendants committed a continuing fraud in obfuscating and failing to disclose such material facts, in whole or in part, to induce consumers, including Plaintiff, to purchase and use Defendants' UPF.

609. Plaintiff did not and could not have discovered with reasonable diligence the true facts relating to the unsafe nature of Defendants' UPF.

610. Plaintiff reasonably relied on the facts revealed and representations made by Defendants, who negligently, recklessly, fraudulently, and/or purposefully concealed material facts about the dangers of their UPF.

611. Defendants made these misrepresentations and/or omissions, including but not limited to those described in this Complaint, for the purpose of deceiving and defrauding Plaintiff with the intention of having Plaintiff act and rely on such misrepresentations and/or omissions.

612. Defendants knew that their concealments, misrepresentations, and/or omissions were material, and that they were false, incomplete, misleading, deceptive, and deceitful when they were made, and/or made the representations or concealment with such reckless disregard for the truth that knowledge of the falsity can be imputed to them.

613. Defendants profited significantly from their unethical and illegal conduct that caused Plaintiff to purchase and ingest dangerous and defective UPF.

614. Defendants' concealment and misrepresentations, and Plaintiff justifiable reliance thereon, were substantial contributing factors in causing injury and incurrence of substantial damages.

615. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages, and losses for the rest of his life.

616. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly

negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT VIII—VIOLATION OF UNFAIR TRADE PRACTICES & CONSUMER PROTECTION LAW

(73 Pa. Stat. Ann. §§201-1 et seq.)

617. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

618. Defendants engaged in unfair competition or unfair, unconscionable, deceptive or fraudulent acts or practices in violation of 73 Pa. Stat. Ann §§201-1 et seq. when they misled consumers regarding the safety risks associated with use of their UPF. As a direct result of Defendants' deceptive, unfair, unconscionable, and fraudulent conduct, Plaintiff suffered and will continue to suffer economic loss, pecuniary loss, personal injury, loss of companionship and society, mental anguish, and other compensable injuries.

619. Defendants' deceptive, unfair, unlawful, and unconscionable practices included but were not limited to the following practices, done knowingly:

a. representing that goods have characteristics, ingredients, uses or benefits that they do not have;

b. advertising goods with the intent not to sell them as advertised;

c. representing that goods are of a particular standard, quality or grade if they are of another; and

d. engaging in fraudulent or deceptive conduct that creates a likelihood of confusion.

620. Plaintiff was injured by Defendants' unlawful conduct, which was intended to through a pervasive pattern of false and misleading statements and omissions by targeting children and portraying their UPF as cool, fun, and safe food substances while misrepresenting or omitting concerns about their addictiveness, safety, and composition.

621. Defendants have a statutory duty to refrain from fraudulent, unfair, and deceptive acts or trade practices in the design, development, manufacture, promotion and sale of their UPF. Defendants' deceptive, unconscionable, unfair and/or fraudulent representations and material omissions to Plaintiff constituted consumer fraud and/or unfair and deceptive acts and trade practices in violation of consumer protection statutes.

622. Defendants actions and failure to act, including the false and misleading representations and omissions of material facts regarding the safety and potential risks of their UPF and the above described course of fraudulent conduct and fraudulent concealment constitute acts, uses or employment by Defendants of unconscionable commercial practices, deception, fraud, false pretenses, misrepresentations, and the knowing concealment, suppression or omission of material facts with the intent that Plaintiff and other rely upon such concealment, suppression or omission of material facts in connection with the sale of merchandise of Defendants in violation of the consumer protection statutes listed above.

623. Defendants' unfair and deceptive trade practices have caused injuries to consumers, and the public will benefit from a cessation of these unlawful actions through this litigation.

624. Plaintiff purchased and ingested Defendants' UPF and suffered injuries as a result of Defendants actions in violation of these consumer protection laws.

625. Had Defendants not engaged in the deceptive conduct described herein, Plaintiff would not have purchased or ingested Defendants' UPF, and thereby would have avoided the injuries they suffered as a result of ingesting Defendants' UPF.

626. By reason of the unlawful acts engaged in by Defendants, Plaintiff has suffered ascertainable loss and damages.

627. As a direct and proximate result of Plaintiff's reasonably anticipated use of Defendants' UPF as manufactured, designed, sold, supplied, marketed and/or introduced into the stream of commerce by Defendants, Plaintiff suffered serious injury, harm, damages, economic and non-economic loss and will continue to suffer such harm, damages and losses for the rest of his life.

628. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

629. Due to the above, Defendants are liable to Plaintiff for compensatory, as well as exemplary, multiple, and/or punitive damages to the extent available and as applicable, in amounts to be proven at trial, together with interest, costs of suit, attorneys' fees and all such other relief as the Court deems proper.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT IX—UNJUST ENRICHMENT

630. Plaintiff incorporates by reference paragraphs 1 through 511 as if fully set forth herein and further allege as follows.

631. At all relevant times, Defendants designed, manufactured, assembled, inspected, labeled, marketed, advertised, promoted, supplied, distributed, sold, and/or otherwise placed UPF into the stream of commerce, and therefore owed a duty of reasonable care to avoid causing harm to those that consumed it, such as Plaintiff.

632. Defendants created and implemented a plan to create a market for their UPF and substantially increase sales of their UPF through a pervasive pattern of false and misleading statements and omissions. Defendants' plan was intended to portray their UPF as fun, cool and safe ingestible substances, with a particular emphasis on appealing to children, while misrepresenting or omitting key facts concerning the design, addictiveness, and safety of their UPF.

633. Defendants were unjustly enriched as a result of their wrongful conduct, including through the false and misleading marketing, promotions and advertisements that included the following non-exhaustive list of omissions regarding: (i) their UPF are engineered to be overconsumed; (ii) their UPF are engineered to have addictive qualities; (iii) ingesting their UPF

poses unreasonable risks of substantial bodily injury; (iv) their UPF causes health risks independent of their labeled nutrient contents; (v) their UPF contains harmful and/or untested chemical additives and contaminants; (vi) their UPF contain dangerous and unnatural combinations of nutrients; (vii) ultra-processing causes human health risks.

634. Defendants wrongfully obfuscated the harm caused by their conduct. Thus, Plaintiff, who mistakenly enriched Defendants by relying on Defendants' fraudulent representations, could not and did not know the effect that using UPF would have on Plaintiff's health.

635. As an intended and expected result of their conscious wrongdoing as set forth in this Complaint, Defendants have profited and benefitted from payments Plaintiff and other consumers made for their UPF.

636. In exchange for the payments made for Defendants' UPF, at the time payments were made, Plaintiff expected that Defendants' UPF were safe to be ingested in the ways Defendants represented and for the purposes Defendants advertised their UPF. In exchange for their payments, Plaintiff believed they were receiving safe substances that could be ingested without risks of serious adverse health effects.

637. Defendants voluntarily accepted and retained these payments with full knowledge and awareness that, as a result of their wrongdoing, and awareness that, as a result of their wrongdoing, Plaintiff paid for Defendants' UPF when they otherwise would not have done so. The failure of Defendants to provide Plaintiff with the remuneration expected enriched Defendants unjustly.

638. It is unjust to allow Defendants to earn and retain revenues, profits and benefits from their UPF while Plaintiff suffered and are suffering serious illnesses, including but not limited to Type 2 Diabetes, fatty liver disease, and other chronic illnesses.

639. Plaintiff are entitled to equity to seek restitution of Defendants' wrongful revenues, profits and benefits to the extent and in the amount deemed appropriate by the Court, and such other relief as the Court deems just and proper to remedy Defendants' unjust enrichment.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT X—CONSPIRACY

(Against Defendants Kraft Heinz, Mondelez, Post Holdings, General Mills, Coca-Cola, & Mars)

640. Plaintiff incorporates by reference paragraphs 1 through 639 as if fully set forth herein and further allege as follows.

641. This claim is brought by Plaintiff against Defendants Kraft Heinz, Mondelez, Post Holdings, General Mills, Coca-Cola, Mars ("Conspiracy Defendants").

642. All Conspiracy Defendants entered into an agreement and/or combined to advance their financial interests by injuring Plaintiff. Specifically, the Conspiracy Defendants worked in concert to maintain and expand the UPF market and to ensure a steady and growing

customer base. This included protecting and expanding their massive, ill-gotten share of the food market.

643. The Conspiracy Defendants sought to accomplish this objective by (1) engineering UPF that would be overconsumed; (2) engineering UPF that would have addictive qualities; (3) deceptively marketing, advertising, promoting and misbranding their UPF to consumers, including vulnerable children; (4) downplaying scientific and public concern that their UPF were harmful and causing health epidemics affecting Plaintiff and other vulnerable children; and (5) defrauding regulators and the public to advance their interests.

644. Plaintiff's ingestion of UPF was a primary objective of the Conspiracy. Conspiracy Defendants orchestrated efforts with a unity of purpose to drive UPF into children by way of unlawful conduct in marketing, promotion, manufacturing, designing and selling UPF that substantially contributed to the Plaintiff's injuries as alleged herein.

645. Conspiracy Defendants further conspired with one another by setting out to entice and lure children to consume increasing amounts of UPF as a wrongful, unlawful and tortious means to make a profit.

646. Despite having actual and constructive knowledge that their conduct was causing severe and incurable injuries in children, Conspiracy Defendants engaged in this Conspiracy with callous disregard for the health, safety and livelihood of Plaintiff and other children.

647. Despite this actual and constructive knowledge that each of the Conspiracy Defendants' actions were causing severe and incurable injuries in children, each Conspiracy Defendant withheld the truth about the consequences of their and their co-conspirators' actions, and concealed the harms caused by their and their co-conspirators' UPF.

648. Instead, Conspiracy Defendants established an ongoing relationship to actively conceal and obfuscate the truth about their and their co-conspirators' actions by, among other things, denying and denouncing scientific and public concern about the harms of their UPF, delaying appropriate regulatory action to reduce the harms of their UPF, blaming their victims for the harms of their UPF, otherwise deflecting blame for the harms of their UPF, polluting the scientific literature with biased research to confuse the public about the harms of their UPF, utilizing biased experts and industry front groups to generate doubt about the harms of their UPF, seeking to enact laws shielding themselves and their co-conspirators from legal liability for the harms of their UPF, and attempting to fraudulently assuage concerns about their conduct by entering into illusory "self-regulation" or similar arrangements.

649. These and Conspiracy Defendants' other actions constitute a collaborative scheme to defraud and injure. As described above, the Conspiracy Defendants shared and acted on a common purpose of maintaining and expanding the amount of their UPF consumed by children in order to ensure a steady and growing customer base, including by maintaining and expanding Conspiracy Defendants' massive and ill-gotten share of the food market.

650. This conspiracy has been in existence for at least 25 years and continues to operate to this day.

651. During this time period, each Conspiracy Defendant transmitted deceptive, false and misleading marketing, promotions, and advertising to children through numerous channels. Despite having knowledge about deceptive, false and misleading nature of their and their co-conspirators' communications, and the harms caused by their UPF and their co-conspirator's UPF, each Conspiracy Defendant concealed these truths.

652. The Conspiracy Defendants devised and knowingly carried out material schemes and/or artifices to defraud the public, including Plaintiff, and regulators

653. The Conspiracy Defendants intended the public and regulators to rely on these false transmissions and this scheme was therefore reasonably calculated to deceive individuals and deprive them of ordinary prudence and comprehension.

654. Plaintiff was injured by the conspiracy, and their injuries would not have occurred but for the predicate acts of the Conspiracy Defendants. The combined effect of the Conspiracy Defendants' fraudulent acts included inducing Plaintiff to purchase and ingest UPF that they would not have purchased or ingested had they known that these UPF were addictive and toxic. As a result, Plaintiff suffered incurable life-long injuries, have suffered damages, and will continue to suffer damages for their rest of his life.

655. Defendants' conduct was unlawful and was a substantial factor in causing Plaintiff's harms. Plaintiff was injured as a direct and proximate result of Defendants' unlawful conspiracy.

656. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Conspiracy Defendants, in an amount greater than $50,000.00 (exclusive of

fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

COUNT XI—CONCERTED ACTION

(Against Defendants Kraft Heinz, Mondelez, Post Holdings, General Mills, Coca-Cola, & Mars)

657. Plaintiff incorporates by reference paragraphs 1 through 656 as if fully set forth herein and further allege as follows.

658. Conspiracy Defendants had actual and constructive knowledge that each co-conspirator's actions were unlawful, and violated the rights of children, including Plaintiff.

659. Conspiracy Defendants had actual and constructive knowledge that their conduct was causing severe and incurable injuries in children,

660. Nevertheless, each Conspiracy Defendant acted in concert with each other pursuant to a common design to conceal the truth about their and their co-conspirators' actions, and to conceal the harms caused by their and their co-conspirators' UPF.

661. Additionally, each Conspiracy Defendant gave substantial assistance and encouragement to each other co-conspirator's unlawful conduct by, among other things, denying and denouncing scientific and public concern about the harms of their UPF, delaying appropriate regulatory action to reduce the harms of their UPF, blaming their victims for the harms of their UPF, otherwise deflecting blame for the harms of their UPF, polluting the scientific literature with biased research to confuse the public about the harms of their UPF, utilizing biased experts and industry front groups to generate doubt about the harms of their UPF, seeking to enact laws shielding themselves and their co-conspirators from legal liability for the harms of their UPF, and attempting to fraudulently assuage concerns about their conduct by entering into illusory "self-regulation" or similar arrangements.

662. In so doing, Conspiracy Defendants each gave substantial assistance to each other Conspiracy Defendant in order to increase sales and ingestion of UPF by children. Conspiracy Defendants did this despite having actual and constructive knowledge that such sales and exposures would cause serious and incurable injuries to children, including Plaintiff.

663. Plaintiff was injured by these Concerted Actions, and their injuries would not have occurred but for the predicate acts of the Conspiracy Defendants. The combined effect of the Conspiracy Defendants' fraudulent acts included inducing Plaintiff to purchase and ingest UPF that they would not have purchased or ingested had they known that these UPF were addictive and toxic. As a result, Plaintiff suffered incurable life-long injuries, have suffered damages, and will continue to suffer damages for their rest of his life.

664. Defendants' concerted conduct was unlawful and was a substantial factor in causing Plaintiff's harms. Plaintiff was injured as a direct and proximate result of Defendants' unlawful concerted action.

665. Defendants' conduct with respect to their design, promotion and sale of their UPF to Plaintiff and the public was fraudulent, malicious, oppressive, willful, reckless, and/or grossly negligent, and indicates a wanton disregard of the rights of others, justifying an award of punitive or exemplary damages.

WHEREFORE, Plaintiff hereby seeks all damages allowed under the laws of the Commonwealth of Pennsylvania, including compensatory damages, economic damages, punitive damages, statutory damages, fees and costs, interest, and all other relief that this Court deems just and proper, from the Conspiracy Defendants, in an amount greater than $50,000.00 (exclusive of fees and costs), under the applicable statutes of the Commonwealth of Pennsylvania and the Local Rules of Court.

ALLEGATIONS PERTAINING TO PUNITIVE DAMAGES

666. Plaintiff incorporates by reference paragraphs 1 through 665 as if fully set forth herein and further allege as follows.

667. The acts and omissions of Defendants as alleged throughout this Complaint were willful, wanton and malicious. Defendants committed these acts with a conscious disregard for the rights, health and safety of Plaintiff and other consumers/users of Defendants' UPF, for the primary purpose of increasing Defendants' profits from the sale and distribution of their UPF. Defendants' outrageous and unconscionable conduct warrants an award of exemplary and punitive damages against Defendants in an amount appropriate to punish and make an example of Defendants.

668. Defendants' willful, wanton, malicious, and/or reckless acts include the foregoing allegations, including but not limited to:

a. Failing to disclose, or warn of, concealing, and/or suppressing material facts regarding the dangers and serious safety concerns of Defendants' UPF to Plaintiff, consumers, and the public;

b. Making false and deceptive representations that Defendants' UPF could be used safely for their ordinary and intended purposes, including frequent and chronic ingestion by children, for the purpose of deceiving and lulling Plaintiff and other consumers into purchasing and ingesting Defendants' UPF without knowledge of their risks;

c. Falsely representing the qualities and characteristics of Defendants' UPF and their safety to Plaintiff, other consumers, and the public;

d. Knowingly subjecting Plaintiff and all purchasers and users of Defendants' UPF to a substantial and unreasonable risk of serious lifelong illness, for the purpose of enhancing Defendants' profits; and

e. Intentionally targeting children, including black and Hispanic children, with deceptive, unfair, and fraudulent promotion and marketing campaigns to induce them to purchase and ingest their UPF without warning of their dangers;

WHEREFORE, Plaintiff demands judgment against Defendants on each of the above-referenced.

A. Awarding compensatory damages, including, but not limited to pain, suffering, emotional distress, loss of enjoyment of life, and other non-economic damages in an amount to be determined at trial of this action;

B. Awarding economic damages in the form of medical expenses, out of pocket expenses, lost earnings, lost earning capacity and other economic damages in an amount to be determined at trial of this action;

C. Punitive and/or exemplary damages for the wanton, willful, fraudulent, reckless acts of the Defendants who demonstrated a complete disregard and reckless indifference for the safety and welfare of the general public and Plaintiff in an amount sufficient to punish Defendants and deter similar conduct;

D. Statutory damages including treble damages;

E. Pre-judgement interest;

F. Post judgement interest;

G. Awarding Plaintiff reasonable attorney's fees;

H. Awarding Plaintiff the costs of these proceedings; and

I. Such other and further relief as this Court deems just and proper.

FILED: Dated December 10, 2024

Respectfully submitted,

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