

June 1, 2018

Members of the Budget Conference Committee  
California State Legislature  
Sacramento, CA 94814

Dear Conference Committee Member:

The undersigned physicians, scientists and health-based organizations urge your support for funding for the Office of Environmental Health Hazard Assessment (OEHHA) to scientifically evaluate the potential impacts of synthetic food dyes on children.

Synthetic dyes are widely used, especially in foods and drinks marketed to children,<sup>1</sup> and essentially all children consume the most commonly used synthetic dyes.<sup>2</sup> Dyes are unnecessary, but they are frequently used to make soda, sports drinks, candy, and other unhealthy foods attractive to kids.

Moreover, the safety of dyes for children is a concern. Following two large studies funded by the UK government showing that dyes can affect children in the general population,<sup>3</sup> warning labels that state that the dyes “may have an adverse effect on activity and attention in children” are required on most dyed foods in Europe,<sup>4</sup> including foods that contain the three most commonly used dyes in the United States.<sup>5</sup>

Industry cites a review by the U.S. Food and Drug Administration Food Advisory Committee in 2011, but that Committee only considered whether there was enough evidence to *prove* that synthetic food dyes cause adverse behavior for children in the *general* (U.S.) population, and was closely divided 6 to 8, on whether warning labels should be required. The same Committee was not asked if they agreed with FDA’s conclusion that “[f]or certain susceptible children with Attention Deficit/Hyperactivity Disorder and other problem behaviors, [...] the data suggest that their condition may be exacerbated by exposure to a number of substances in food, including, but not limited to, synthetic color additives.”<sup>6</sup>

Since 2011, eight reviews of the scientific evidence, including two new meta-analyses, conclude that excluding synthetic food dyes from the diet reduces adverse behaviors in some children.<sup>7</sup>

While numerous companies including restaurants,<sup>8</sup> manufacturers,<sup>9</sup> and supermarkets<sup>10</sup> are responding to the concerns by offering products free from dyes, others representing the food and chemical industries continue to dispute the evidence of harmfulness, claiming that food dyes are “safe.” Now, paradoxically, they argue that California should not even examine the evidence.<sup>11</sup> They cite FDA’s “extensive premarket approval and market surveillance program” for the use of synthetic food colors. Yet the nine synthetic dyes still permitted in food were approved between 1966 and 1987, and the studies underlying those approvals are decades old and inadequate for detecting the kinds of adverse effects more recently observed in children. We are asking that OEHHA review current scientific knowledge on chemicals that were introduced decades ago

OEHHA is the right agency to conduct an evaluation of the safety of dyes. The mission of OEHHA is to “protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.” OEHHA is widely regarded as a leading scientific organization for evaluating risks to human health and its work is used by scientists and governments worldwide.

We strongly urge California to fund this important review of the research on behalf of California’s children.

Please contact Lisa Lefferts, Senior Scientist at Center for Science in the Public Interest, at [llefferts@earthlink.net/202-777-8317](mailto:llefferts@earthlink.net/202-777-8317) if you would like any additional information.

Sincerely, Organizations

Berkeley Media Studies Group, Berkeley, CA Center for Environmental Health, Oakland, CA

Center for Food Safety (offices in Sacramento, CA, Washington, DC, Portland, OR) Center for

Science in the Public Interest

Children’s Advocacy Institute, Sacramento, CA

Consumer Federation of California Foundation, Sacramento, CA Consumer Federation of America

Consumers Union (offices in San Francisco, CA, Yonkers, NY, Washington, DC, Austin, TX)

Environmental Defense Fund (offices in San Francisco, CA, Sacramento, CA, Washington, DC, New York, NY, Austin, TX, Bentonville, AR, Boston, MA, Boulder, CO, Raleigh, NC, Beijing, China, London, UK)

Environmental Working Group (offices in San Francisco, CA, Sacramento, CA, Washington, DC, Ames, IA)

Feingold Association of the United States Healthy Babies Bright Futures

Healthy School Food Maryland

Natural Resources Defense Council (offices in San Francisco, CA, Santa Monica, CA, New York, NY, Washington, DC, Chicago, IL, Bozeman, MT, Beijing, China)

Orange County Food Access Coalition, Santa Ana, CA Public Health Institute, Oakland, CA

Prevention Institute, Oakland, CA Real Food for Kids

Real Food for Kids - Montgomery

Science and Environmental Health Network

Individual Physicians, Scientists, Researchers (Affiliations for Identification Purposes Only)

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cc: The Honorable Bob Wiecekowski

\* Authors of key, published research studies on, or scientific reviews of, synthetic food dyes, including:

**Arnold LE** et al. Attention-deficit/hyperactivity disorder: dietary and nutritional treatments. *Child Adolesc Psychiatr Clin N Am.* 2013; 22(3): 381–402.

**Arnold LE** et al. Artificial food colors and attention-deficit/hyperactivity symptoms: conclusions to dye for. *Neurotherapeutics* 2012 Jul;9(3):599-609.

**Batada A, Jacobson MF.** Prevalence of artificial food colors in grocery store products marketed to children. *Clin Pediatr.* 2016; 55(12):1113-9.

**Faraone SV, Antshel KM.** Towards an evidence-based taxonomy of nonpharmacologic treatments for ADHD. *Child Adolesc Psychiatr Clin N Am.* 2014; 23(4):965–972.

**Kobylewski S, Jacobson MF.** Toxicology of food dyes. *Int J Occup Environ Health* 2012 Jul-Sep; 18(3): 220-46.

**Schab DW, Trinh NH.** Do artificial food colorings promote hyperactivity in children with hyperactive syndromes? A meta-analysis of double-blind placebo-controlled trials. *J Dev Behav Pediatr.* 2004; 25(6):423-34.

**Stevens LJ** et al [including **Arnold LE**]. Dietary sensitivities and ADHD symptoms: thirty-five years of research. *Clin Pediatr (Phila).* 2011; 50(4):279-93.

**Stevens L et al.** Amounts of artificial food dyes and added sugars in foods and sweets commonly consumed by children. *Clin Pediatr (Phila).* 2015; 54(4):309-21.

**Stevens L et al.** Amounts of artificial food colors in commonly consumed beverages and potential behavioral implications for consumption in children: revisited. *Clin Pediatr (Phila).* 2015; 54(12):1228-30. **Stevenson J et al.**

Research review: The role of diet in the treatment of attention-deficit/hyperactivity disorder—an appraisal of the evidence on efficacy and recommendations on the design of future studies. *J Child Psychol Psychiatry.* 2014; 55(5):416-27.

**McCann D et al.**[including **Stevenson J**]. Food additives and hyperactive behaviour in 3-year-old and 8/9- year-old children in the community: a randomised, double-blinded, placebo-controlled trial. *Lancet* 2007 Nov 3; 370(9598):1560-7.

**Bateman B et al.**[including **Stevenson J**] The effects of a double blind, placebo controlled, artificial food colourings and benzoate preservative challenge on hyperactivity in a general population sample of preschool children. *Arch Dis Child.* 2004; 89(6):506-11.

## Notes

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<sup>1</sup> Batada A, Jacobson MF. Prevalence of artificial food colors in grocery store products marketed to children. *Clin Pediatr.* 55(12):1113-9, 2016. <https://www.ncbi.nlm.nih.gov/pubmed/?term=27270961>. <sup>2</sup> Doell DL, Folmer DE, Lee HS et al. Exposure estimate for FD&C colour additives for the US population. *Food Additi Contam: Part A*, 33:5, 782-797, 2016, DOI: [10.1080/19440049.2016.1179536](https://doi.org/10.1080/19440049.2016.1179536)

<sup>3</sup> Bateman B, Warner JO, Hutchinson E, et al. The effects of a double blind, placebo controlled, artificial food colourings and benzoate preservative challenge on hyperactivity in a general population sample of preschool children. *Arch Dis Child.* 2004;89(6):506-11; and McCann D, Barrett A, Cooper A, et al. Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomised, double-blinded, placebo-controlled trial. *Lancet* 2007 Nov 3;370(9598):15607.

<sup>4</sup> European Union. Regulation (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives. Available online.

<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:354:0016:0033:en:PDF>

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<sup>5</sup> Red 40, Yellow 5, and Yellow 6 (called Allura Red, Tartrazine, and Sunset Yellow) together comprise more than 90 percent of the dyes certified for use in food in the United States.

<sup>6</sup> U.S. Food and Drug Administration. Background document for the Food Advisory Committee: Certified color additives in food and possible association with attention deficit hyperactivity disorder in children. March 30-31. <https://wayback.archive-it.org/org-1137/20170406211659/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/FoodAdvisoryCommittee/UCM248549.pdf>

<sup>7</sup> These are summarized [here](#) and include Nigg JT, Lewis K, Edinger T, Falk M. Meta-Analysis of attention-deficit/hyperactivity disorder or attention-deficit/hyperactivity disorder symptoms, restriction diet, and synthetic food color additives. *J Am Acad Child Adolesc Psychiatry* 2012;51(1): 86-97.e8. doi: 10.1016/j.jaac.2011.10.015; Stevens LJ, Kuczek T, Burgess JR, et al. Dietary sensitivities and ADHD symptoms: thirty-five years of research. *Clin Pediatr (Phila)*. 2011;50(4):279-93. doi: 10.1177/0009922810384728; Arnold LE, Lofthouse N, Hurt E. Artificial food colors and attention-deficit/hyperactivity symptoms: conclusions to dye for. *Neurotherapeutics*. 2012 Jul;9(3):599-609. doi: 10.1007/s13311-012-0133-x; Sonuga-Barke EJ, Brandeis D, Cortese S, et al. Nonpharmacological interventions for ADHD: systematic review and metaanalyses of randomized controlled trials of dietary and psychological treatments. *Amer J Psychiatry*. 2013 Mar 1; 170(3):275-89; Arnold LE, Hurt E, Lofthouse N. Attention-deficit/hyperactivity disorder: dietary and nutritional treatments. *Child Adolesc Psychiatr Clin N Am*. 2013; 22(3): 381–402, v. doi: 10.1016/j.chc.2013.03.001; Stevenson J, Buitelaar J, Cortese S et al. Research Review: The role of diet in the treatment of attention-deficit/hyperactivity disorder – an appraisal of the evidence on efficacy and recommendations on the design of future studies. *J Child Psychol Psychiatry*. 2014;55(5):416-27. doi:10.1111/jcpp.12215; Faraone SV, Antshel KM. Towards an evidence-based taxonomy of nonpharmacologic treatments for ADHD. *Child Adolescent Psychiatric Clin N Am*. 2014; 23(4):965–972. doi: 10.1016/j.chc.2014.06.003; Nigg, JT, Holton, K. Restriction and elimination diets in ADHD treatment. *Child Adolesc Psychiatr Clin N Am*. 2014 Oct;23(4):936-53. doi: 10.1016/j.chc.2014.05.010.

<sup>8</sup> For example, Chipotle, Dunkin Donuts, Kentucky Fried Chicken, Noodles & Co., Panera, Papa John's, Pizza Hut, Starbucks, Subway, and Taco Bell have eliminated dyes in at least some of their products.

<sup>9</sup> For example, Campbell Soup Company, Frito-Lay (PepsiCo), General Mills, Kraft Heinz, Kellogg, Nestlé, Mars, and Schwan Food Co. have eliminated dyes in at least some of their products.

<sup>10</sup> Trader Joe's, Whole Foods, and many natural food stores have eliminated synthetic food dyes from all foods they sell. Aldi's has eliminated dyes from most foods it sells. Other supermarkets, such as Food Lion, Giant Food/Stop and Shop, H-E-B, Kroger, Meijer, ShopRite, Supervalu, and Target offer private label products free from dyes.

<sup>11</sup> Letter to Senator Holly Mitchell, Chair, Senate Committee on Budget and Fiscal Review, from the Grocery Manufacturers Association, American Beverage Association, California League of Food Producers, Household & Commercial Products Association, National Confectioners Association, American Chemistry Council, International Food Additives Council, International Association of Color Manufacturers, Council for Responsible Nutrition, California Grocers Association, May 23, 2018.