

April 7, 2023

Comments on the Request for Nominations for the Science Advisory Committee on Chemicals

Comments submitted via regulations.gov to the docket ID EPA-HQ-OPPT-2022-0843-0002

The following comments are being submitted by the University of California, San Francisco (UCSF) Program on Reproductive Health and the Environment (PRHE). We have no direct or indirect financial or fiduciary interest in the manufacture or sale of any chemical that would be the subject of the deliberations of this Committee.

We appreciate the opportunity to support qualified candidates to serve as members of the Science Advisory Committee on Chemicals (SACC), pursuant to section 2625(o) of the Frank R. Lautenberg Chemical Safety for the 21st Century Act. This panel will “provide independent advice and expert consultation, at the request of the Administrator, with respect to the scientific and technical aspects of issues relating to the implementation of this title” and will include “representatives of such science, government, labor, public health, public interest, animal protection, industry, and other groups as the Administrator determines to be advisable, including representatives that have specific scientific expertise in the relationship of chemical exposures to women, children, and other potentially exposed or susceptible subpopulations.” We submit these comments on the candidates for selection as participants on the SACC responsible for reviewing several EPA documents including EPA’s risk evaluations for the Next 20 High-Priority Chemicals under TSCA, EPA’s Draft Proposed Principles of Cumulative Risk Assessment under the Toxic Substances Control Act and Draft Proposed Approach for Cumulative Risk Assessment of High-Priority Phthalates and a Manufacturer-Requested Phthalate.

We encourage EPA to consider the following when finalizing nominations:

- **The role of reviewers and the SACC in supporting the mission of EPA in protecting human health and the environment.** EPA has a professional and legal duty to select committee members who will provide credible and independent scientific analysis and advice free from financial conflicts of interest (COI) or a strong bias toward the perspective of regulated industries that may have a vested interest in minimizing EPA’s regulation of hazardous materials and products. In the Federal Register notice for this panel, the selection criteria for panel membership include “the breadth of collective experience needed to address EPA’s charge to the SACC , as well as ... **Absence of financial conflicts of interest or the appearance of a loss of impartiality.**”¹ (emphasis ours)

It has been established that there is an association between financial COI and recommendations from clinical guidelines and expert reviews which favors the interests of the industry providing financial support.^{2,3} It is likely then that allowing committee members on the SACC with financial ties to regulated chemical companies would risk biasing the SACC’s recommendations towards the industry interests. Of further concern, is the potential “megaphone effect” that multiple

¹ US EPA. (2022). Science Advisory Committee on Chemicals (SACC); Request for Nominations. Available: <https://www.regulations.gov/document/EPA-HQ-OPPT-2022-0843-0001>

² Nejtgaard CH, Bero L, Hróbjartsson A, et al. Association between conflicts of interest and favourable recommendations in clinical guidelines, advisory committee reports, opinion pieces, and narrative reviews: systematic review. *BMJ*2020;371:m4234.pmid:33298430

³ Coyne DW. Influence of industry on renal guideline development. *Clin J Am Soc Nephrol*2007;2:3-7, discussion 13-4. doi:10.2215/CJN.02170606 pmid:17699377

SACC members with financial conflicts of interest are likely to bring as their influence and recommendations will be in the same direction, thus creating a systemic bias.⁴

- **The need for transparent and effective financial disclosure policies that are strictly enforced.** It is critical that EPA publicly disclose all financial relationships of all nominees with regulated industries, particularly industries with a specific financial interest in the activities of the SACC. While some of this information can be found in some published papers, not all funding arrangements can be identified through publications in the public domain. Disclosure and COI policies play an essential role in protecting EPA and committee work products from the possibility of biased scientific conclusions and must be strictly enforced and routinely addressed to ensure the quality of SACC reviews and other work products.

Further, although disclosing COI was previously seen as sufficient to manage committee members' interests, research has shown that paradoxically those members who disclose COI provide more biased advice due to the belief that they have adequately warned recipients of the information they have provided or to compensate for the fact that their advice will be disregarded.^{5,6} Systematic reviews have established that disclosed financial conflicts are associated with research outcomes biased towards the sponsor and therefore demonstrate why disclosure is not a solution to reducing bias in guideline committees.⁷

We want to emphasize that the burden of vetting COI should not fall on the public but rather should be integrated into the initial evaluation and review of SACC nominations by the Agency.

- **The need for representation from directly impacted, susceptible, vulnerable, and/or highly exposed populations.** We urge the Agency to both seek representatives that have *specific scientific expertise* in the relationship of chemical exposures to health effects in workers, women, children, and other potentially exposed or susceptible subpopulations, and to incorporate a broader and more inclusive definition to capture representation from individuals with diverse knowledge sources that represent unique perspectives to these critical issues. EPA has historically encouraged "citizen science" only to then erect expertise barriers that can prevent those with lived expertise regarding impacted communities but perhaps without certain advanced degrees (i.e., holding a postgraduate degree) from taking part in critical discussions. There are many examples of successful implementation of such approaches, which have demonstrated that incorporating knowledge resources outside of traditional academic and science fields can greatly enrich the research and policy process.⁸

In summary, our comments address the following main points:

1. Support for the nominations of 16 individuals to the SACC; and

⁴ Ralston R, Hil SE, da Silva Gomes F, Collin J. Towards preventing and managing conflict of interest in nutrition policy? an analysis of submissions to a consultation on a draft WHO tool. *Int J Health Policy Manag*2021;10:255-65.pmid:32610752

⁵ Loewenstein G, Sah S, Cain DM. The unintended consequences of conflict of interest disclosure. *JAMA*2012;307:669-70. doi:10.1001/jama.2012.154. pmid:22337676

⁶ Romain PL. Conflicts of interest in research: looking out for number one means keeping the primary interest front and center. *Curr Rev Musculoskelet Med*. 2015 Jun;8(2):122-7. doi: 10.1007/s12178-015-9270-2. PMID: 25851417; PMCID: PMC4596167.

⁷ Lundh A, Lexchin J, Mintzes B, Schroll JB, Bero L. Industry sponsorship and research outcome. *Cochrane Database Syst Rev*2017;2:MR000033.pmid:28207928

⁸ Anderson, B.E., Naujokas, M.F. and Suk, W.A., 2015. Interweaving knowledge resources to address complex environmental health challenges. *Environmental health perspectives*, 123(11):1095-1099.

2. EPA should strive to eliminate or manage financial conflicts of interest and appearance of a loss of impartiality from selected committee members.

We appreciate the opportunity to provide public input. Please do not hesitate to contact us with any questions regarding these comments.

Sincerely,

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DETAILED COMMENTS

1. Support for 16 individuals nominated to the SACC

In the first 10 TSCA risk evaluations, EPA made a series of implementation mistakes around its risk evaluation process: excluding conditions of use and exposure pathways; not considering aggregate exposure and cumulative risk; not identifying all potentially exposed or susceptible subpopulations, and not quantifying differences in risk for susceptible groups; not addressing data gaps; and using flawed systematic review approaches to identify and evaluate the relevant evidence. These mistakes all disproportionately understated risk to environmental justice communities and

exacerbated the risk of continued adverse outcomes from chemical exposures.⁹ For EPA to meet the statutory mandate to use the “best available science” in its risk evaluations for the Next 20 High Priority Substances and meet the environmental and racial justice goals of the Biden Administration and this current EPA,^{10,11,12,13} it is integral that the Agency select candidates for the SACC who are unbiased and free of financial conflicts of interest, have relevant technical experience qualifying them to review the documents that will come before this committee, and ideally have members who have worked with impacted communities experiencing the burden of cumulative exposures to multiple chemical and nonchemical stressors. There are several nominees we support due to the depth of their expertise, their other professional qualifications, their experience providing guidance to EPA on the implementation of amended TSCA, and their experience working with directly affected communities:

- a. Mr. El’gin Avila
- b. Dr. Andres Cardenas
- c. Dr. Stephanie Eick
- d. Dr. Adam Finkel
- e. Dr. Mary Fox
- f. Dr. Maeve Howett
- g. Dr. Carly Hyland
- h. Dr. David Kriebel
- i. Dr. Juleen Lam
- j. Dr. Keeve Nachman
- k. Dr. Francheska Merced-Nieves
- l. Dr. Rainbow Rubin
- m. Dr. Darius Sivin
- n. Dr. Jessica Trowbridge
- o. Dr. Julia Varshavsky
- p. Mr. Michael Wright

2. **EPA should eliminate financial conflicts of interest and appearance of a loss of impartiality from selected committee members.**

In the Federal Register notice for this panel, the selection criteria for panel membership include “the breadth of collective experience needed to address EPA’s charge to the SACC , as well as ... **Absence of financial conflicts of interest or the appearance of a loss of impartiality.**”¹⁴ (emphasis ours) There is well established empirical research supporting these criteria, and EPA must ensure it fully adheres to these standards in selecting panel members.

It has been demonstrated across multiple areas of research, including chemicals, that even when controlling for methodological biases, studies sponsored by industry or that have an author with a

⁹ Toxic Substances Control Act (TSCA) Implementation: How the Amended Law Has Failed to Protect Vulnerable Populations from Toxic Chemicals in the United States. Environ Sci Technol. 2022 09 06; 56(17):11969-11982. Rayasam SDG, Koman PD, Axelrad DA, Woodruff TJ, Chartres N.

¹⁰ U.S. Executive Office of the President. Presidential Memorandum, Modernizing Regulatory Review, § 2(b)(i) , 2021.

¹¹ U.S. Executive Office of the President, Executive Order on Tackling the Climate Crisis at Home and Abroad § 219 , 2021

¹² U.S. Executive Office of the President. Justice40 – A Whole-of-Government Initiative. Available: <https://www.whitehouse.gov/environmentaljustice/justice40/>

¹³ U.S. Executive Office of the President. Executive Order 13985 On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, FR 2021-01753, 2021.

¹⁴ US EPA. (2022). Science Advisory Committee on Chemicals (SACC); Request for Nominations. Available: <https://www.regulations.gov/document/EPA-HQ-OPPT-2022-0843-0001>

financial COI are more likely to have results that favor the sponsor's products than studies with no industry sponsorship or author COI.^{15,16,17,18} The influence of financial ties on research can be traced to a variety of types of biases, and this conflict of interest needs to be distinguished from non-financial interests in the research.¹⁹ Industry sponsorship and authors with a COI can bias research through various mechanisms, including how they design and conduct a study, selectively report the results, code events, analyze the study data, spin conclusions, as well as frame the questions that are asked.

Additionally, COI among committee members is increasingly recognized as contributing to bias in guideline recommendations.^{20,21,22} Several factors influence the extent to which committee members are likely to influence guidelines and recommendations, including the relevance of the topic to the committee members interest and type and magnitude of the relationship comprising the conflict.²³

It has been established that there is an association between financial COI and recommendations from clinical guidelines and expert reviews, meaning that recommendations favor the interests of the industry providing support.^{24,25} It is likely then that allowing committee members on the SACC with financial ties to any of the regulated chemical companies would risk biasing the recommendations they make towards industry interests. Of further concern, is the potential "megaphone effect" that multiple conflicted SACC members are likely to bring as their influence and recommendations will be in the same direction, thus creating a systemic bias.

Therefore, individuals who serve on EPA advisory committees with financial relationships with companies that can benefit from the recommendations of the advisory committee should be excluded

¹⁵ Odierna DH, Forsyth SR, White J, et al. The cycle of bias in health research: a framework and toolbox for critical appraisal training. *Account Res.* 2013;20(2):127-41. 11

¹⁶ Fabbri A, Lai A, Grundy Q, et al. The Influence of Industry Sponsorship on the Research Agenda: A Scoping Review. *Am J Public Health.* 2018;108(11):e9-e16. 12

¹⁷ Psaty BM, Prentice RL. Minimizing bias in randomized trials: the importance of blinding. *JAMA.* 2010;304(7):793-4. 13

¹⁸ Psaty BM, Kronmal RA. Reporting mortality findings in trials of rofecoxib for Alzheimer disease or cognitive impairment: a case study based on documents from rofecoxib litigation. *JAMA.* 2008;299(15):1813-7.

¹⁹ Bero LA, Grundy Q. Why Having a (Nonfinancial) Interest Is Not a Conflict of Interest. *PLoS Biol.* 2016 Dec 21;14(12):e2001221. doi: 10.1371/journal.pbio.2001221. PMID: 28002462; PMCID: PMC5176169.

²⁰ Blake P, Durão S, Naude CE, Bero L. An analysis of methods used to synthesize evidence and grade recommendations in food-based dietary guidelines.

²¹ Tabatabavakili S, Khan R, Scaffidi MA, Gimpaya N, Lightfoot D, Grover SC. Financial conflicts of interest in clinical practice guidelines: a systematic review. *Mayo Clin Proc Innov Qual Outcomes*2021;5:466-75. Doi:10.1016/j.mayocpiqo.2020.09.016 pmid:33997642

²² Brems JH, Davis AE, Clayton EW. Analysis of conflict of interest policies among organizations producing clinical practice guidelines. *PLoS One*2021;16:e0249267. doi:10.1371/journal.pone.0249267 pmid:33930893

²³ Parker L, Bero L. Managing risk from conflicts of interest in guideline development committees *BMJ* 2022; 379 :e072252 doi:10.1136/bmj-2022-072252

²⁴ Nejtgaard CH, Bero L, Hróbjartsson A, et al. Association between conflicts of interest and favourable recommendations in clinical guidelines, advisory committee reports, opinion pieces, and narrative reviews: systematic review. *BMJ*2020;371:m4234.pmid:33298430

²⁵ Coyne DW. Influence of industry on renal guideline development. *Clin J Am Soc Nephrol*2007;2:3-7, discussion 13-4. doi:10.2215/CJN.02170606 pmid:17699377

from the committee.^{26,27,28,29} EPA must use predetermined criteria to evaluate and respond to the risk of bias from the interests of prospective SACC members³⁰ (see a modified version of Table 1 below).

Table 1. Risk management model for conflicts of interest in EPA SACC members. Adapted from Parker L, Bero L. Managing risk from conflicts of interest in guideline development committees BMJ 2022; 379 doi: <https://doi.org/10.1136/bmj-2022-072252>

Level of risk	Type of interest	Example	Examples of entity generating secondary interest	Suggested management
High risk	Financial link* with large national or multinational chemical corporation or position of control or decision making within such a corporation	<p>Applicant, partner, or child is one of the following: A company employee, paid adviser or consultant/contractor</p> <p>Recipient of speaker fees</p> <p>Owner of financial holdings in the company (e.g., shares, patents, royalties)</p> <p>Recipient of research grant money from company</p> <p>Recipient of monetary gift (e.g., to cover conference travel, accommodation, registration)</p> <p>Managerial or advisory position, including unpaid (e.g., director, trustee, member of advisory board)</p>	<p>Large international chemical product manufacturers (e.g., Unilever, Procter & Gamble, 3M)</p> <p>Chemical companies providing raw material used in large scale manufacturing and processing (e.g., Monsanto, ExxonMobil DuPont, BASF, Bayer, Dow Chemical, Dupont de Nemours, Syngenta)</p> <p>Trade organizations and other groups that represent chemical company interests (e.g., American Chemistry Council, Treated Wood Council, Fertilizer Institute, Arsenic Science Task Force)</p>	Reject committee membership until 3-5 years have passed since eliminating conflict(s) of interest (e.g., by divesting financial links, resigning from position, or rejecting speaker fees)

²⁶ Bero L, Anglemyer A, Vesterinen H, Krauth D. The relationship between study sponsorship, risks of bias, and research outcomes in atrazine exposure studies conducted in non-human animals: Systematic review and meta-analysis. *Environment International*. 2016;92-93:597-604

²⁷ Yank V, Rennie D, Bero LA. Financial ties and concordance between results and conclusions in meta-analyses: Retrospective cohort study. *British Medical Journal*. 2007;335(7631):1202-5.

²⁸ Mandrioli D, Kearns CE, Bero LA. Relationship between Research Outcomes and Risk of Bias, Study Sponsorship, and Author Financial Conflicts of Interest in Reviews of the Effects of Artificially Sweetened Beverages on Weight Outcomes: A Systematic Review of Reviews. *PLoS One*. 2016;11(9):e0162198.

²⁹ Lundh A, Lexchin J, Mintzes B, Schroll JB, Bero L. Industry sponsorship and research outcome. *The Cochrane database of systematic reviews*. 2017;2:MR000033-MR.

³⁰ Parker L, Bero L. Managing risk from conflicts of interest in guideline development committees *BMJ* 2022; 379 :e072252 doi:10.1136/bmj-2022-072252

Level of risk	Type of interest	Example	Examples of entity generating secondary interest	Suggested management
	Position of control or decision making over small industry company	Applicant, partner, or child is owner of small company	Local manufacturers such as boutique personal care product maker, small business, Small scale manufacturing business	
Medium risk	Financial link* with chemical industry, with no decision making or control over corporation	Applicant, partner, or child is a small chemical company employee	Local manufacturers such as boutique personal care product maker, small business, Small scale manufacturing business	Individual cannot chair and may have only restricted participation in guideline committee until 3-5 years have passed since eliminating conflict(s) of interest
	Financial link* with government-chemical industry partnership	Applicant, partner, or child receives grant funding for research from formal partnership between government department and multinational chemical company	Grant from government health department-multinational chemical company partnership to study health effects	
	Personal financial gain from chemical related work	Applicant, partner, or child is paid for self-employed work related to chemicals (e.g., book, consulting)	Not applicable	
Low risk	Professional interests of prospective member	<p>Author of empirical studies, systematic reviews (where the research and researchers are not funded by industry or other chemical sector business)</p> <p>Recipient of research grant from non-industry sources (e.g., government)</p> <p>Member of previous guidelines committee</p> <p>Key opinion leader—e.g., author of opinion based</p>	Not applicable	Full participation

Level of risk	Type of interest	Example	Examples of entity generating secondary interest	Suggested management
		<p>articles, advocacy (not funded by industry or other chemical sector business)</p> <p>Member of a professional society that is not industry funded</p> <p>Working as a health professional in a public health/environmental health/medical related field (e.g., toxicologist, medical doctor)</p>		
Minimal or no risk	Personal experiences, values, or lifestyle habits of prospective member	<p>Political and economic views</p> <p>Spiritual or religious affiliation</p> <p>Cultural practices, upbringing, ethnicity</p> <p>Professional and personal experiences</p> <p>Lifestyle habits and preferences, including dietary patterns</p> <p>Health problems, including dietary allergies and intolerances and those with recommended dietary restrictions</p> <p>Social relationships, including professional interest group membership, friendly or hostile connections with others</p>	Not applicable	Full participation

Level of risk	Type of interest	Example	Examples of entity generating secondary interest	Suggested management
* Financial link for any amount of money, of any duration, and occurring concurrently, recently (e.g., last 3-5 years), or in future (e.g., next 2 years)				

For example, any SACC member that has financial ties with a chemical company (a company employee, paid adviser, contractor, or consultant, recipient of speaker fees, owner of financial holdings in the company (e.g., shares, patents, royalties), recipient of research grant money from company, recipient of monetary gift (e.g., to cover conference travel, accommodation, registration), managerial or advisory position, including unpaid) or position of control or decision making within such a chemical corporation, EPA should reject committee membership until 3-5 years have passed since eliminating conflict(s) of interest.

Federal ethics regulations require EPA to “[a]ssure that the interests and affiliations of advisory committee members are reviewed for conformance with applicable conflict of interest statutes”.³¹ Therefore, before finalizing the selection of individual advisory members the vetting process of conflicts of interest should include: publicly identifying and disclosing any conflicts that include financial ties with industry; determining whether a conflict of interest exists with the committee member; and finally implementing the necessary procedures to manage any conflicts of interest. Policies around declarations of financial conflicts of interest apply to entities who have a possibility of financial gain from the outcome of the SACC’s activities, as such, consulting or working in support of community organizations or NGOs should not be interpreted as a financial conflict of interest. We have made these comments and more in our recommendations to EPA regarding conflicts of interest in our recent publication in *Environmental Health*.³² We encourage EPA to ensure the composition of the SACC cumulative risk panel cover a wide breadth of knowledge and experience from various relevant sectors who do not have a financial COI.

Regarding financial conflicts of interest, we have concerns about the following nominees:

1. Gerald Bachler, PhD

Dr. Bachler works for DuPont de Nemours Chemical, which has a particular financial interest in the outcome of the SACC’s activities, as they manufacture two chemicals that will come under consideration by the SACC (Dibutyl phthalate, Formaldehyde) and was previously a part of Dow Chemical which manufactures (formaldehyde and 1,2-dichloropropane) and release three others (1,3-butadiene, 1,2-dichloroethane, and 1,1,2-trichloroethane).³³ His biosketch states he has previously worked for Shell International (manufactures 1,3-Butadiene) and International Flavors and Fragrances (manufactures HHCB). As Dr. Bachler’s employer DuPont de Nemours Corporation is subject to fees under the TSCA

³¹ 41 C.F.R. § 102-3.105(h)

³² Woodruff TJ, Rayasam SDG, Axelrad DA, Koman PD, Chartres N, Bennett DH, Birnbaum LS, Brown P, Carignan CC, Cooper C, Cranor CF, Diamond ML, Franjevic S, Gartner EC, Hattis D, Hauser R, Heiger-Bernays W, Joglekar R, Lam J, Levy JI, MacRoy PM, Maffini MV, Marquez EC, Morello-Frosch R, Nachman KE, Nielsen GH, Oksas C, Abrahamsson DP, Patisaul HB, Patton S, Robinson JF, Rodgers KM, Rossi MS, Rudel RA, Sass JB, Sathyanarayana S, Schettler T, Shaffer RM, Shamasunder B, Shepard PM, Shrader-Frechette K, Solomon GM, Subra WA, Vandenberg LN, Varshavsky JR, White RF, Zarker K, Zeise L. A science-based agenda for health-protective chemical assessments and decisions: overview and consensus statement. *Environ Health*. 2023 Jan 12;21(Suppl 1):132. doi: 10.1186/s12940-022-00930-3. PMID: 36635734; PMCID: PMC9835243.

³³ Zhongyu (June) Yan, Michael Bartels, Bhaskar Gollapudi, Jeffrey Driver, Matthew Himmelstein, Sean Gehen, Daland Juberg, Ian van Wesenbeeck, Claire Terry & Reza Rasoulpour (2020) Weight of evidence analysis of the tumorigenic potential of 1,3-dichloropropane supports a threshold-based risk assessment, *Critical Reviews in Toxicology*, 50:10, 836-860, DOI: 10.1080/10408444.2020.1845119

program, he has a clear financial conflict of interest which impedes her ability to participate in an “independent scientific and technical peer review” and thus should be excluded from the panel.

2. Cynthia Graham, PhD

Dr. Graham, as stated in her profile, is partially funded by the Huntsman Corporation, a chemical company that manufactures several chemicals that will be under the consideration by the SACC, such as phthalic anhydride, Phosphoric acid triphenyl ester, Di-ethylhexyl phthalate, Dicyclohexyl phthalate, Butyl benzyl phthalate, trans-1,2-Dichloroethylene. As Dr. Graham’s employer Huntsman Corporation is subject to fees under the TSCA program, she has a clear financial conflict of interest which impedes her ability to participate in an “independent scientific and technical peer review” and thus she should be excluded from the panel.

3. Allison F. Jenkins, MPH

Ms. Jenkins is currently employed at the Texas Commission on Environmental Quality (TCEQ), and as her biosketch states, her major activities within TCEQ are around air pollution. Although employed at a state agency, Ms. Jenkins has a long history of collaboration with the chemical industry, participating in her official capacity in the industry workshop report “Beyond Science and Decisions” alongside ExxonMobil, Dow Chemical, American Chemistry Council and Gradient.³⁴ Additionally, Ms. Jenkins was an author of the TCEQ report on Ethylene Oxide³⁵ that inappropriately discounted the breast cancer risk and drastically underestimate the potential risks of Ethylene Oxide to women^{36,37,38} and was ultimately rejected by EPA in 2022.³⁹ Additionally TCEQ collaborates extensively with Toxicology Excellence for Risk Assessment (TERA), a consulting firm with close ties to chemical manufacturers, tobacco companies, and other industries, on its scientific assessments.⁴⁰ Considering Ms. Jenkins’s involvement in TCEQ’s activities around Ethylene Oxide which significantly underestimated risks to the general population and particularly to a potentially exposed or susceptible subpopulation (i.e., women)⁴¹, she does not represent a person with the ability to participate in an “independent scientific and technical peer review” and should be excluded from the panel.

4. Silvia I. Maberti, PhD

Dr. Maberti is employed by ExxonMobil, which is a company with a vested financial interest in the outcome of the risk evaluation process as it manufactures several chemicals that will come under the purview of the SACC, such as di-isononyl phthalate, diisodecyl phthalate, 1,3-butadiene, and phthalic anhydride and releases two others formaldehyde, ethylene dibromide. Dr. Maberti has been an active voice on behalf of ExxonMobil during the implementation of TSCA and thus does not represent a person

³⁴ Alliance for Risk Assessment. (2012) Beyond Science and Decisions: From Problem Formulation to Dose-Response Assessment: From Problem Formulation to Dose-Response Report from Workshop IV. Available:

https://tera.org/Alliance%20for%20Risk/Workshop/WS4/Workshop_4_Meeting_Report.pdf

³⁵ Texas Commission on Environmental Quality. (2020) Ethylene Oxide (EtO) Development Support Document (DSD). Available: <https://www.tceq.texas.gov/toxicology/ethylene-oxide>

³⁶ US Environmental Protection Agency. (2021). Comment submitted by Veena Singla, Associate Director, Program on Reproductive Health and the Environment, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco (UCSF) et al. Available: <https://www.regulations.gov/comment/EPA-HQ-OPP-2013-0244-0039>

³⁷ US Environmental Protection Agency. (2022) Comment submitted by University of California, San Francisco (UCSF), Program on Reproductive Health and the Environment (PRHE) et al. Available: <https://www.regulations.gov/comment/EPA-HQ-OAR-2018-0746-0308>

³⁸ UCSF Program on Reproductive Health and the Environment Blog. Search: TCEQ. Available: <https://prheucsf.blog/?s=TCEQ>

³⁹ Hogue, C. (2022). EPA affirms ethylene oxide’s health hazards. *Chemical & Engineering News*. Available: <https://cen.acs.org/environment/pollution/EPA-affirms-ethylene-oxides-health/100/web/2022/12>

⁴⁰ Song, L and Adams, R. (2014). One-stop science shop has become a favorite of industry—and Texas. *The Center for Public Integrity*. Available: <https://publicintegrity.org/environment/one-stop-science-shop-has-become-a-favorite-of-industry-and-texas/>

⁴¹ Ahmed, A. (2019). TCEQ Report Could Pave the Way for Chemical Plants to Emit More Hazardous Air Pollutants. *Texas Observer*. Available: <https://www.texasobserver.org/tceq-report-could-pave-the-way-for-chemical-plants-to-emit-more-hazardous-air-pollutants/>

with the ability to participate in an “independent scientific and technical peer review” and should be excluded from the panel.

5. Julia E. Rager, PhD MSEE

Dr. Rager was previously employed by ToxStrategies, which works with corporate clients and publishes research funded by industries, such as ExxonMobil, Dow Chemical and American Chemistry Council (ACC). She authored papers downplaying hexavalent chromium risks funded by the ACC⁴² and papers downplaying PFAS risks funded by PFAS manufacturers.⁴³ Due to Dr. Rager’s previous employer she has a clear financial conflict of interest which impedes her ability to participate in an “independent scientific and technical peer review” and thus she should be excluded from the panel.

⁴² Rager JE, Ring CL, Fry RC, Suh M, Proctor DM, Haws LC, Harris MA, Thompson CM. High-Throughput Screening Data Interpretation in the Context of In Vivo Transcriptomic Responses to Oral Cr(VI) Exposure. *Toxicol Sci.* 2017 Jul 1;158(1):199-212. doi: 10.1093/toxsci/kfx085. PMID: 28472532; PMCID: PMC5837509.

⁴³ Borghoff, S. J., Fitch, S., Rager, J. E., & Huggett, D. (2018). A hypothesis-driven weight-of-evidence analysis to evaluate potential endocrine activity of perfluorohexanoic acid. *Regulatory Toxicology and Pharmacology*, 99, 168–181. <https://doi.org/10.1016/j.yrtph.2018.09.001>