

Industry Influence on Occupational and Environmental Public Health

JAMES HUFF, PHD

Traditional covert influence of industry on occupational and environmental health (OEH) policies has turned brazenly overt in the last several years. More than ever before the OEH community is witnessing the perverse influence and increasing control by industry interests. Government has failed to support independent, public health-oriented practitioners and their organizations, instead joining many corporate endeavors to discourage efforts to protect the health of workers and the community. Scientists and clinicians must unite scientifically, politically, and practically for the betterment of public health and common good. Working together is the only way public health professionals can withstand the power and pressure of industry. Until public health is removed from politics and the influence of corporate money, real progress will be difficult to achieve and past achievements will be lost. *Key words:* industry influence; government policy; worker health; science and politics; science manipulation.

INT J OCCUP ENVIRON HEALTH 2007;13:107-117

Currently, governmental health agencies charged with protecting workers and the environment appear to have changed course and now work with and condone unhealthy worker and environmental practices. Health agencies should not consort with purveyors of environmental damage and occupational health hazards. Government's role has changed insidiously over the years from that of watchdog and protector. This leaves environmental scientists in a terribly difficult position. In a landmark special issue of this journal, Egilman and Rankin Bohme pointed out that corporate-funded science is increasingly common and is accompanied by a "substantial tradition of manipulation of evidence, data, and analysis, ultimately designed to maintain favorable conditions for industry, at both the material and ideological levels."¹ Industry's wealth and limitless global reach now extends into all aspects of academia, government, and industry-fronted non-governmental organizations. There is little satisfaction

to be found with the science of occupational and environmental medicine, toxicology, and epidemiology so long as much of it is funded and manipulated by industry sponsors and published in journals that do not require disclosures of conflicts of interest.² Additionally, government-appointed panels are often replete with scientists and physicians having clear conflicts of interest to the issue being evaluated. This is especially damaging on panels convened to advise the FDA on new drug therapies or to evaluate untoward effects of drugs, and those industry-laden panels of EPA for establishing environmental health rules. Many researchers are intimidated to report study results antithetical to the interests of major corporations.³⁻⁵

There is no professional organization or governmental agency with any significant record of defending the heroic doctors and scientists who speak out against this growing problem. In fact, many of the professional organizations that once championed environmental and worker health have been implicated in industry funding, manipulation of science, and fraudulent reporting in scientific journals. A recent example of this problem is that of the Finnish Institute of Occupational Health (FIOH), which receives grants from the World Health Organization (WHO) and the International Labor Office (ILO) to publish the FIOH *African Newsletter on Occupational Health and Safety*. The December 2005 issue of the *African Newsletter* contains an article by Mutetwa et al. entitled "Chrysotile fibre levels in asbestos-cement manufacturing in Zimbabwe."⁶ Judging from the study design and findings, and from the few cited references, the article appears to have been written by those who espouse the views of the Chrysotile Institute (formerly Asbestos Institute), the International Chrysotile Association (until last year the Asbestos International Association), or some other representative of the chrysotile asbestos industry. The apparent propaganda in the article follows from the low recorded exposures. There is no excuse for such a misleading article if proper, or even cursory, editorial review is taking place. The Finnish editors must have been aware of the value this publication would have for industry, as well as the increased health hazards it might create for workers, and should have ensured that the article was rigorously refereed.⁷

Address correspondence and reprint requests to: James Huff, PhD, National Institute of Environmental Health Sciences, Research Triangle Park, NC 27709, USA; e-mail: <huff1@niehs.nih.gov>.

William Wiist, at the University of Massachusetts, Amherst, contends that institutions and informal networks have formed a movement that is challenging the growing power and pervasive influence of large corporations. The movement's analyses show that the historical development and current function of the corporate entity require production of sizeable profits regardless of consequences to worker safety, health, society, or the environment. As a result, public health professionals frequently address health problems related to products, services, or practices of corporations.⁸

Sheldon Samuels sees a far more complex problem.⁹ He counters that corporations are creatures of government. Even when their capital is privately controlled, their behavior is not. Their failures are collapses of governance, including the governance of individual behavior, or what he calls "the acceptances" and their consequences. He gives some compelling examples:

- Tort litigation and civil penalties, when successful, typically tax workers and stockholders with no monetary or career effect on the executives and directors who consciously exchange money for death and disease.

- "Market" strategies are essentially unchallenged in public health policy exchanges, e.g., that pollution 'credits' and similar devices result in unnecessary pollution and in averaging, not decreasing, unnecessary death and disease. The perpetrators receive as rewards full professorships in our leading schools of public health, instead of prison terms.

- "Ethicists" rationalize the use of children, the impoverished, and the homeless in unnecessary drug, pesticide, and chemical experimentation, and government committees propose in the *Federal Register* protocols for such use. The moral sense of a normal person identifies conspiracy and acts of homicide. Schools of public health make their textbooks required reading.

- Public health practitioners focus on the morally empty structure and inadequate rules of subject consent, but not the moral mission of NIH requirements for their grants, placing their own financial well being above human life.

- Public health professionals debate the glorification of their toxicological and epidemiologic disciplines, as merits of "precautionary principles," but ignore implementation through the distributive injustice of fallacious methods of cost-benefit analysis.

There is no body of systematic criminal environmental law to deal effectively with systemic environmental criminality, not in the United States or in any country. And that, not the enhancement of hazy anti-corporation movements, should be the focus of our attention.⁹

Daniel Teitelbaum thinks that rhetoric is of little value¹⁰:

I have in the past three or four years taken upon myself the burden of appearing on a pro bono basis

as an expert witness for the prosecution in a series of criminal prosecutions by various State and Federal Agencies of corporations or corporate executives who have been charged with environmental and occupational crimes including corporate manslaughter. In each case, the corporate defendants have relied upon "noted experts" from the academic and industrial communities to give defense testimony that juries have rejected. Large fines and prison sentences have been levied against the defendants when the juries have found them guilty. The issue isn't more talk. It isn't an anti-corporate movement. It is the activation of responsible and competent scientists to help drive the enforcement of those laws on the books that protect workers and the environment from rapacious attack by corporate executives and boards.

While whistle blowers within Government have been deprived of protection by the Supreme Court, the local law enforcement agencies are far more responsive to the fact that what are often called accidents (Sago Mine, refinery explosions, etc.) are actually incidents. These incidents are fully preventable. They are often the result of what may well be the criminal negligence of corporate officials. We should turn to the local law enforcement agencies and blow the whistle on every case we see of death and injury to workers that is preventable and demand grand jury investigations and indictments for the crimes they are, rather than allow OSHA, MSHA, State regulatory bodies, and other limp agencies to fine faceless companies with meaningless fines which mostly are never paid.¹⁰

Calls for radical reform are not to be lightly dismissed, given the troubled nature of the current practice of occupational and environmental medicine. In a series of three articles, LaDou has presented the problems with the workers' compensation model of occupational and environmental medicine in the United States.^{2,11,12} He contends that the seriously flawed workers' compensation system should be converted to a public health model to remove the influence of industry and insurers on the practice of medicine. Occupational and environmental medicine, as a part of the public health infrastructure, could play a much more substantive part in bringing about a national program to deal with occupational and environmental health. Occupational health and safety professionals trained in public health can and should participate in these activities, but not when they are in the employ of industry or insurers. To preserve and promote healthy environments, including improving deteriorating workplaces, responsible scientists, physicians, and other health and safety professionals must more forcibly speak out about the wrongs being perpetuated by industry and industry apologists. This need especially exists in governmental health institutes and regulatory agencies.

INDUSTRY TACTICS

Differences of opinion about the same scientific data set or about experimental results may be logically strengthening. However industry rarely “bends” in debates as to the best public health course of action, especially when one of their chemicals or products or processes is found to be carcinogenic, mutagenic, teratogenic, or a reproductive hazard. This industry-favored strategy has been gaining momentum over the last 20-plus years and continues unabated with the current administration and houses of Congress. Scores of public health measures long established for protection of workers and the environment have been softened or overturned. Beleaguered public servants likewise are bombarded by non-government organizations that must find the will to fight every pro-industry, [anti-] public health decision.

Industry hires academic experts to support their position, however tenuous and speculative, to endorse their products, and to explain and downplay the risks to government and in public forums. Several recent journal articles document the activities of some of these industry-aligning experts, as a few representative examples, Patricia Buffler, Kenny Crump, Lewis Braverman, Richard Bull,¹³ Kenneth Rothman, Laura Green, David J. Hewitt,¹⁴ Otto Wong, Michael Goodman, David Garabrandt,¹⁵ Dennis Paustenbach, Sverre Langard, Marc Schenker,¹⁶ Ernest McConnell,¹⁷ Coleen Beall, and Elizabeth Delzell.¹⁸ Many more industry experts are listed on the website of the Center for Science in the Public Interest (CSPI), <<http://www.cspinet.org/>>.

Academic credentials often are used to shield industry views and to create the illusion of objectivity. In fact, a person’s professional address or organization does not reflect his or her public health philosophy, nor does the institution necessarily reflect a purity of pursuit. Industry often forms institutes to contradict or cloud damaging findings. One alarming result is that public health officials increasingly accede to or are coerced by industry persuasion.¹⁹ Moreover, governmental Institute “leadership” frequently sides with industry. This is particularly true when anti-environment and pro-business administrations and Congresses are in power. Public health and environmental issues typically take a back seat to money-associated dealings. For example, under industry pressure, the National Toxicology Program (NTP) delayed listing fiberglass insulation in its NTP Report on Carcinogens [RoC] for nearly six years, despite the fact that OSHA mandated labeling fiberglass as a carcinogen.^{20,21} The glass fiber industry has again petitioned the NTP to de-list this material from the RoC. Also in response to industry lobbying, the NTP removed saccharin from the NTP RoC, despite lack of unanimity among staff, the NTP Board of Scientific Counselors, and a panel of experts. Currently the phthalate industry has petitioned NTP to remove from the RoC di-2-ethylhexylphthalate (DEHP). Moreover, John Graham, until recently of the

Office of Management and Budget, has placed increasing restrictions including industry oversight on preparing and compiling the RoC so that NTP was not able to meet its congressional obligations for the twelfth edition (due 2006).

PROFESSIONAL ORGANIZATIONS

Another assault on the environment and worker’s health comes in the form of professional organizations. The Society of Toxicology (SOT) is one of the more blatant examples of a scientific organization that largely represents industry. The Toxicology Forum is even worse with regard to promoting industry propaganda and subservience, as is the America College of Toxicology (ACT). Perhaps this bent is inevitable given that industry dominates the field of toxicology, and ranks of memberships of these societies. Another example is the International Society of Regulatory Toxicology and Pharmacology (ISRTP) and its pro-industry journal under Gio Gori, a long-time paid apologist for the tobacco industry.^{22,23}

The International Commission on Occupational Health (ICOH) is another front for industry and a source of industry-friendly opinions and regulations. Often presented as an organization established to protect workers’ health, ICOH pretends to debate and contemplate and yet typically ends up siding with industry views. Most ICOH members have industry affiliations, even though they seldom admit their conflicts of interest. The ICOH attempts to mask its true purpose by holding a large international meeting every three years, but these infrequent events merely mislead supporters into thinking that progress is being made in international occupational health. Asbestos is but one shameful example of ICOH support of industry, where its officers and members have endorsed and enhanced the mining and manufacture of asbestos products for many decades.^{24–27} Without awareness or approval of its membership, a coterie of Collegium Ramazzini members endorsed a working relationship with ICOH, ostensibly to make positive public health inroads, yet only serving to tarnish the stellar reputation of one of the few organizations devoted to worker health.

The Collegium Ramazzini, without discussing the matter with its membership, accepted NIEHS funding for a meeting held at Mount Sinai in New York. When members learned of this, they pointed out that NIEHS accepts funds from the American Chemistry Council (ACC, formerly the Chemical Manufacturing Association) and other industry groups. Many Collegium members were surprised to learn that industry actually played a part in financing a number of Collegium activities without the members’ being informed, including such corporate players as Wacker Chemie, Johns Manville, Exxon, Montedison, API, Mobil, and Commercial Union. Following requests for clarification, the Secretary General of the Collegium, Morando Soffritti,

replied that, "All the scientific events which have been held in Bologna received some support from private and public contributors." He went on to say that, "I can tell you that the limited support we received from industry for our research never conditioned our freedom or our independence." Many concerned members of the Collegium Ramazzini do not agree with this policy but appear to be in the minority. It is the simple fact that by going to such a meeting, Collegium members tacitly acknowledge some debt to industry.

Two other organizations affiliated with ICOH appear to represent industry while their roles are masked with credentials tying them to the WHO and ILO. ICOH affiliates Medichem and the International Centre for Pesticide Safety (ICPS) also are industry fronts. Their publications do not identify their interests and funding, nor the companies and users with whom they collaborate. Company toxicologists sit on regulatory committees across the world to supply information about their products.^{28,29}

Scientific experts who sit on governmental and international bodies and advisory groups dealing with pesticides and other chemicals represent, reflect, and focus on the dominant toxicology models they advocate. They often emphasize modes of action and demonstrate great confidence in one often self-serving model of toxicity and any presumptive thresholds. The deliberations of such committees are confidential and members may be bound by collective responsibility. Regulatory toxicologists working for governments and international agencies do not have the staff or resources to replicate or to become instant and dominant experts concerning the original research and hence must most often depend on the companies to supply the primary data or synopses so that the regulators can make appropriate decisions about approvals and usage. Further, industry contacts with regulators are innumerable and corporations are relentless in their pursuits to influence any eventual promulgations reflecting on their vested interests.³⁰

The nefarious activities of company experts can be found throughout the world. The U.S. approval of atrazine serves as an example of their influence. Atrazine is a common agricultural herbicide with endocrine-disruptor activity, and there is evidence that it interferes with reproduction and development, and may cause cancer. It is the most heavily used herbicide in the United States, with more than 40 million pounds applied on corn acres in 2005 alone. Although the U.S. Environmental Protection Agency (EPA) approved its continued use in October 2003, that same month the European Union (EU) announced a ban of atrazine because of potential adverse health concerns from ubiquitous and unpreventable water contamination. The manufacturer of atrazine, Syngenta, to influence the U.S. atrazine assessment, submitted flawed scientific data as evidence of no harm, and met repeatedly and privately with the EPA to negotiate the government's regu-

latory approach. Many of the details of these negotiations continue to be withheld from the public, despite EPA regulations and federal open government laws that require such decisions to be made in the open.³¹ In their June 2006 risk assessment of chlorinated triazines, EPA again decided atrazine does not pose any threat to human health or the environment [see PTCN, 26 June 2006, <<http://www.ptcnonline.com/home.asp>>].

GOVERNMENT AND INDUSTRY

The current government's willingness and proclivity to forge partnerships between industry and government rings with sound-good propaganda, e.g., "cooperation, benefit public health, better use of limited resources, generate unassailable findings, partnerships." The National Institute of Environmental Health Sciences (NIEHS), for example, entered into an agreement with the American Chemical Council (ACC) to test hundreds of chemicals for potential environmental endocrine-disrupting activities. Under the bold banner of "NIEHS and ACC" the NIEHS journal *Environmental Health Perspectives* ran this advertisement/announcement in 2001.

NIEHS and ACC Establish Grant Program

On 26 July 2001 the NIEHS and the American Chemistry Council (ACC) signed a unique memorandum of understanding that will provide \$4 million over the next two years to conduct multidisciplinary extramural research on potential developmental toxicants. The research will specifically study mechanisms of action, using tools such as DNA microarrays and genetically sensitized animal models to look at cellular networks of responding genes, help define important target molecules and pathways for toxicity investigations, and provide clues to future biomarkers of toxic exposure and effect. Says NIEHS director Kenneth Olden, "This [memorandum of understanding] is a collaboration between government and industry to improve the health of the American people by improving the quantity and quality of the data on potential developmental toxicants that are available for use in the risk assessment process."³²

What is not said here is that NIEHS put up \$3 million [75%] of the mentioned \$4 million while the chemical industry, through the ACC, contributed a comparatively paltry \$1 million and gained substantial influence over these studies. Hence, once again, the citizens of America pay through their taxes for studies of industry chemicals and study design and eventual evaluations influenced by industry. The U.S. EPA and other agencies also have taken this "partnership" path to allow and promote industry control over governmental health initiatives and programs. The GAO came down harshly on these industry-government funding agreements: "the arrangements

raised concerns about the potential for ACC to influence research that could affect the chemical industry.” After evaluating this industry–government arrangement, and overall, “GAO recommends, among other things, that NIH and EPA develop formal policies for evaluating and managing conflicts of interest when entering into research arrangements with nongovernmental partners, particularly those representing a regulated industry, and that NIH revise its gift policy to require conflict of interest evaluations and documentation of decisions.”³³

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC)/WHO

During the last decade industry has had increasing and often decisive influence on IARC’s Monograph Series: Evaluation of Carcinogenic Risks to Humans.^{34–36} IARC consistently “downgraded” [lowered the risk evaluation of] more chemicals than it “upgraded” in the 1990s: acrylonitrile, amitrole, atrazine, di(2-ethylhexyl phthalate)DEHP), ethylenethiourea (ETU), glasswool, insulation [fiberglass], d-limonene, melamine, rock (stone) wool, saccharin and its salts, slagwool, and sulfamethazine as examples. These downgrades were based most often on “modes of action” (a naïve and unproven furtive metaphor for “mechanism”) that IARC (and industry, and all too frequently U.S. regulatory agencies) stated were operative only in animals and were not relevant to humans, and thus a hope-we-are-right leap to “safe for humans.” DEHP [and 1,3-butadiene] is a most egregious example of science manipulation and misrepresentation, and thus perpetuation of harm to humans based on speculative mechanistic behavior.^{37–39}

Industry-friendly scientists spread industry influence to scientific panels in the United States and in other countries, and to the WHO. Fortunately IARC has new leadership for their Monographs, yet we must continue to carefully watch over the IARC Monographs activities and their choices of experts.⁴⁰ The same diligence must be directed towards another WHO program, the International Programme on Chemical Safety (IPCS), that has shown to have been industry-conservative in the past.^{28,41}

INDUSTRY INFLUENCE ON IDENTIFYING AND CLASSIFYING CHEMICAL CARCINOGENS

Nothing since the Food and Drugs Act of 1906 and the Federal Food, Drug, and Cosmetic Act of 1938 has had a greater positive impact on the safety of foods and food products from a carcinogenesis point of view than the Delaney Amendment, promulgated in 1958. This law, named after Congressman James Delaney of New York, forbid the addition to foods of any agent or chemical that was known or shown to cause cancer in humans or animals. That is, “the Secretary [of the Food and Drug Administration] shall not approve for use in food any chemical additive found to induce cancer in

man, or, after tests, found to induce cancer in animals.” Not any. What could be more decent and proper and fair? Industry did not think so, and over the decades since this Law was enacted in 1958, during the Eisenhower administration, fought and cajoled and financed efforts to have Delaney repealed or gutted.

Interestingly, the Delaney Clause applied to pesticides in processed foods only when residues of a cancer-causing pesticide increased during processing; for example, when more of a pesticide was present in ketchup than in the raw tomatoes used to make it. Moreover, Delaney never applied to pesticides in raw foods. In 1988, the EPA eased restrictions on several pesticides that posed a “de minimus” or “purported absence” of risk to humans. This change was challenged successfully by the Natural Resources Defense Council and overturned in 1992 by the Ninth Circuit Court of Appeals. However, pesticide use was removed from the Delaney Clause in 1996 by an amendment to Title IV of the Food Quality Protection Act. This demise of the Delaney Clause was another victory for industry, and a jolting defeat for American public health.

The politically-led FDA has over the years done less and less to promote good health: as one serious example FDA leadership approved aspartame and like artificial sweeteners over staff and advisory council’s advice to the contrary. Soffritti and colleagues, at the Ramazzini Foundation in Bologna, Italy, found that aspartame [“NutraSweet”; “Equal”TM] causes leukemia and cancers of the kidney and brain in laboratory animals, yet aspartame is widely distributed on the world market, with new uses being announced with apparent seamless frequency—now in more than 6,000 products worldwide.⁴² Decades ago NTP wasted a golden opportunity to set straight the debate over the industry’s findings of brain tumors once and perhaps for all. The FDA on several occasions “blocked” the NTP from honoring the nomination of aspartame for full toxicologic testing and evaluation. Perhaps as a cover, the NTP “tested” aspartame in an inadequate transgenic model, and—no carcinogenic response was observed,⁴³ as predicted. The NTP, knowing this model was inappropriate (among other deficiencies, it does not detect “nongenotoxic chemicals or those causing liver tumors”), still went ahead and declared aspartame non-carcinogenic despite these “false-negative” findings.⁴³

NTP staff presented their aspartame study results in a technical report format usually reserved for two-year bioassays that attempted to have their oversight Board of Scientific Counselors endorse the short-term exposure results as a bona fide “negative” outcome. Fortunately, the Board, after much debate, insisted on a more reasonable albeit less-than-scientifically accurate conclusion: “Under the conditions of this 9-month feed study, there was no evidence of carcinogenic activity of aspartame in male or female p53 haplo-insufficient mice exposed to 125 to 50,000 ppm. Because this is a new

model, there is uncertainty whether the study possessed sufficient sensitivity to detect a carcinogenic effect.” More than 25 years have passed without proper attention to the carcinogenicity of aspartame, due largely to a testing veto to the NTP lodged by the FDA.⁴⁴

Important web sites for learning the facts and truth about public health and environmental and occupational health issues are listed in the Appendix. On the other side of the spectrum are many organizations devoted to obfuscation and deceit about environmental issues and public health. These sources of information are largely supported and funded by industry, and often are created by the industries being regulated (as examples, Formaldehyde Institute; Phthalate Institute) to use any means necessary or at their disposal for thwarting and delaying public health efforts to make their products safer.

On February 18, 2004, over 60 leading scientists—Nobel laureates, medical experts, former federal agency directors, and university chairs and presidents—voiced their concern over the misuse of science by the Bush administration.⁴⁵ In their report, the Union of Concerned Scientists (UCS) detailed cases where the administration has manipulated science on environmental and other issues.

On global warming alone, the [Bush] administration belittled, misrepresented, altered or quashed multiple reports suggesting a clear link between greenhouse gas emissions and the burning of fossil fuels like coal and oil. A study detailing the impact of mercury emissions from power plants was sanitized to industry specifications. Another study suggesting that a Congressional clean-air bill would achieve greater pollution reductions than the administration’s own plan, at approximately the same cost, was withheld.

It is a common Administration practice to engage in “suppressing inconvenient facts that might force Mr. Bush’s friends in the oil, gas and coal industries to spend more on pollution control.” The UCS report points to “similar shenanigans involving other agencies, including Agriculture, Interior and even, on reproductive health issues, the Centers for Disease Control.” The UCS report “also criticizes the administration for stacking advisory committees with industry representatives” and removing standing members or blocking nominees who might not blindly adhere to the administration’s political–environmental viewpoints.

Many in the government—particularly the U.S. Public Health Service and the U.S. EPA—continue to be dangerously credulous in their dealings with vested industries, conflicted scientists, and misguided industry-manipulated congressmen/senators.³³ These health and environmental setbacks will not be overcome or even neutralized for many years, largely because programs and congressional promulgations set in place are

not easily overturned or made right. This is especially true for public and occupational health regulations. Even with a new administration’s appointments to health agencies, considerable time goes by before any positive environmental and workplace impact can be felt. The International Agency for Research on Cancer and the World Health Organization, after some unfortunate years of excessive industry influence, are beginning to regroup and return to their objective scientific and world public health roots and to the esteemed international status they previously held.⁴¹ If only we could say the same about agencies in the United States charged with dealing with and protecting health concerns and issues in the workplace and the environment.

CONCLUSIONS

We need to do our immediate best to overcome negative public health trends and continue to fight prevalent and pervasive industry influence. Wrong-headed industry-posed deceptions and fabrications must be counteracted with scientific truth regarding the real hazards of chemicals and industry practices. The task is significant; while support to continue this minority discourse is virtually absent. For better public and general environmental health we must not take the easy route of going along or compromising our scientific convictions. We need not give up the code that brought us into this field of endeavor. We need to make even bigger demands for better health and safety, without which habitable environment, life-sustainable public health, and safe workplaces will be unrealized or remote. Our credo should be that there is no compromise for these human and humanistic goals.

References

1. Egilman DS, Rankin Bohme S. Over a barrel: corporate corruption of science and its effects on workers and the environment. *Int J Occup Environ Health*. 2005;11:331-7. <www.ijoh.com>.
2. LaDou J. Occupational medicine in the United States: a proposal to abolish workers’ compensation and reestablish the public health model. *Int J Occup Environ Health*. 2006;12:154-68.
3. Sass JB, Castleman B, Wallinga D. Vinyl chloride: a case study of data suppression and misrepresentation. *Environ Health Perspect*. 2005;113:809-12.
4. Richter E, Soskolne CL, LaDou J: Efforts to stop repression bias by protecting whistleblowers. *Int J Occup Environ Health*. 2001;7:68-71.
5. Kuehn RR. Suppression of environmental science. *Am J Law & Med*. 2004;30:333-69.
6. Mutetwa B, Chikonyora M, Dozva R, Mazibuko D. Chrysotile fibre levels in asbestos-cement manufacturing in Zimbabwe. *African Newsletter on Occupational Health and Safety*. 2005;15:66-68. <http://www.ttl.fi/AfricanNewsletter> or <http://www.ttl.fi/NR/rdonlyres/39784837-0345-4122-974D-822B6CEC29CA/0/african_newsletter305.pdf>.
7. Bailar JC 3rd, Ballal SG, Boback M, et al. FIOH-sponsored Newsletter misrepresents asbestos hazards in Zimbabwe. *Int J Occup Environ Health*. 2006;12:254-8.
8. Wiist WH. Public health and the anticorporate movement: rationale and recommendations. *Am J Public Health*. 2006; 96:1370-5.

9. Samuels SW. Time to consider real environmental criminal laws? July 31, 2006. Internet message to LaDou J.
10. Teitelbaum D. Internet message to Sheldon Samuels, July 31, 2006.
11. LaDou J. The rise and fall of occupational medicine in the United States. *Am J Prev Med.* 2002;22:285-95.
12. LaDou J. Occupational medicine: the case for reform. *Am J Prev Med.* 2005;28:396-402.
13. Sass J. Lockheed Martin and the White House working Together to weaken regulation of chemicals leaching from military superfund sites. *Int J Occup Environ Health.* 2004;10:330-4.
14. Breilh J, Branco JC, Castleman BI, et al. Texaco and its consultants [letter]. *Int J Occup Environ Health.* 2005;11:217-20.
15. Egilman DS, Billings MA. Abuse of epidemiology: automobile manufacturers manufacture a defense to asbestos liability. *Int J Occup Environ Health.* 2005;11:360-71.
16. Egilman DS, Scout. Corporate corruption of science: the case of chromium (VI). *Int J Occup Environ Health.* 2006;12:169-76.
17. Scout, Egilman D. The case of chromium (VI). *Int J Occup Environ Health.* 2006;12:426-8.
18. Bailar JC 3rd, Ciccolella A, Harrison RJ, et al. IBM, Elsevier Science, and academic freedom. *Am J Ind Med.* 2007; in press.
19. Melnick RL. Suppression of crucial information in the IARC evaluation of DEHP. *Int J Occup Environ Health.* 2003;9:84-5; discussion 89.
20. Infante PF, Schuman LD, Dement J, Huff J. Fibrous glass and cancer. *Am J Ind Med.* 1994;26:559-84.
21. Infante PF, Schuman LD, Huff J. Fibrous glass insulation and cancer: response and rebuttal. *Am J Ind Med.* 1996;30:113-20.
22. Axelson O, Balbus JM, Cohen G, et al. Re: Regulatory toxicology and pharmacology. *Int J Occup Environ Health.* 2003;9:386-9; author reply 389-90.
23. Jacobson MF, Sharpe VA, Angell M, et al. Editorial policies on financial disclosure. *Nat Neurosci.* 2003;6:1001.
24. Ashford NA, Castleman B, Frank AL, et al. The International Commission on Occupational Health (ICOH) and its influence on international organizations. *Int J Occup Environ Health.* 2002;8:156-62.
25. Richter ED, Berman T. Seattle and the ICOH: the view from the other side of the globe [editorial]. *Int J Occup Environ Health.* 2000;6:161-3.
26. Watterson A. ICOH and the pesticide industry [editorial]. *Int J Occup Environ Health.* 2000;6:73-6.
27. LaDou J. The asbestos cancer epidemic. *Environ Health Perspect.* 2004;112:285-90.
28. Castleman B, Lemen R. The manipulation of international scientific organizations. *Int J Occup Environ Health.* 1998;4:53-5.
29. Castleman B. Global corporate policies and international "double standards" in occupational and environmental health. *Int J Occup Environ Health.* 1999;6:61-4.
30. Watterson A. Pesticide health and safety and the work and impact of international agencies: partial successes and major failures. *Int J Occup Environ Health.* 2001;7:339-47 [the case study is largely drawn from this reference].
31. Sass JB, Colangelo A. European Union bans atrazine, while the United States negotiates continued use. *Int J Occup Environ Health.* 2006;12:260-7.
32. NIEHS and ACC establish grant program. *Environ Health Perspect.* 2001;109:12.
33. GAO. NIH and EPA need to improve conflict of interest reviews for research arrangements with private sector entities. U.S. Governmental Accountability Office. GAO-05-191, February 2005.
34. Tomatis L. The IARC monographs program: changing attitudes towards public health. *Int J Occup Environ Health.* 2002;8:144-52.
35. Huff J. IARC monographs, industry influence, and upgrading, downgrading, and under-grading chemicals: a personal point of view. International Agency for Research on Cancer. *Int J Occup Environ Health.* 2002;8:249-70.
36. Melnick RL, Brody C, DiGiangi J, Huff J. The IARC evaluation of DEHP excludes key papers demonstrating carcinogenic effects. *Int J Occup Environ Health.* 2003;9:400-2.
37. Klaunig JE, Babich MA, Baetcke KP, et al. PPARalpha agonist-induced rodent tumors: modes of action and human relevance. *Crit Rev Toxicol.* 2003;33:655-780.
38. Melnick RL, Kamel F, Huff J. Declaring chemicals "not carcinogenic to humans" requires validation, not speculation. *Environ Health Perspect.* 2003;111:A203-4.
39. Mirer FE. Comment from the union participant in the IARC Working Group that downgraded DEHP. *Int J Occup Environ Health.* 2003;9:85-7.
40. Needleman H, Huff J. The International Agency for Research on Cancer and obligate transparency. *Lancet Oncol.* 2005;6:920-1.
41. Abrams H, Anderson H, Anderson J, et al. Business interests influence IPCS/WHO. *Arch Environ Health.* 1996;51:338-40.
42. Soffritti M, Belpoggi F, Degli Esposti D, Lambertini L, Tibaldi E, Rigano A. First experimental demonstration of the multipotential carcinogenic effects of aspartame administered in the feed to Sprague-Dawley rats. *Environ Health Perspect.* 2006;114:379-85.
43. NTP. Toxicology Studies of Aspartame (CAS No. 22839-47-0) in Genetically Modified (FVB Tg.AC Hemizygous) and B6.129-Cdkn2atm1Rdp (N2) Deficient Mice and Carcinogenicity Studies of Aspartame in Genetically Modified [B6.129-Trp53tm1Brd (N5) Haplo-insufficient] Mice (Feed Studies). GMM-1. National Toxicology Program, Research Triangle Park, NC, October 2005; 1-222.
44. Gordon G. FDA resisted proposals to test aspartame for years. *Star Tribune.* November 22, 1996. <<http://www.mindfully.org/Food/Aspartame-FDA-Resisted22nov96.htm>>.
45. UCS. Restoring Scientific Integrity in Policymaking. An Investigation into the Bush Administration's Misuse of Science. Union of Concerned Scientists. 46 pages, 18 Feb 2004. <<http://www.ucsusa.org/>>.

Additional Reading

- Abraham J. Pharmaceuticals, the state and the global harmonisation process. *Aust Health Rev.* 2004 Nov 8;28:150-60.
- Abraham J, Reed T. Reshaping the carcinogenic risk assessment of medicines: international harmonisation for drug safety, industry/regulator efficiency or both? *Soc Sci Med.* 2003;57:195-204.
- Abraham J. The science and politics of medicines control. *Drug Saf.* 2003;26:135-43.
- Abraham J. The pharmaceutical industry as a political player. *Lancet.* 2002;360(9344):1498-502.
- Abraham J. Transnational industrial power, the medical profession and the regulatory state: adverse drug reactions and the crisis over the safety of Halcion in the Netherlands and the UK. *Soc Sci Med.* 2002;55:1671-90.
- Anon. Politics trumps science at the FDA. *Lancet.* 2005;366(9500):1827.
- Ashford NA. Implementing the precautionary principle: incorporating science, technology, fairness, and accountability in environmental, health, and safety decisions. *Int J Occup Med Environ Health.* 2004;17:59-67.
- Ashford NA, Zwetsloot G. Encouraging inherently safer production in European firms: a report from the field. *J Hazard Mater.* 2000 Nov 3;78(1-3):123-44.
- Axelson O. Negative and non-positive epidemiological studies. *Int J Occup Med Environ Health.* 2004;17:115-21.
- Axelson O. Ethylene oxide and cancer. *Occup Environ Med.* 2004;61:1.
- Axelson O, Castleman B, Epstein S, et al. Re: Implementation of WHO guidelines on disclosure of interest by members of WHO expert panels. *Int J Occup Environ Health.* 2002;8:271-3.
- Baba A, Cook DM, McGarity TO, Bero LA. Legislating "sound science": the role of the tobacco industry. *Am J Public Health.* 2005; 95 suppl 1:S20-7.
- Bailar JC 3rd, Greenberg M, Harrison R, LaDou J, Richter E, Watterson A; Trades Union Congress. Santa Clara County Center for Occupational Safety and Health and Silicon Valley Toxics Coalition. Cancer risk in the semiconductor industry: a call for action. *Int J Occup Environ Health.* 2002;8:163-8.
- Bell W, Clapp R, Davis D, et al. Carcinogenicity of saccharin in laboratory animals and humans: letter to Dr. Harry Conacher of Health Canada. *Int J Occup Environ Health.* 2002;8:387-93.
- Bohme SR, Zorabedian J, Egilman DS. Maximizing profit and endangering health: corporate strategies to avoid litigation and regulation. *Int J Occup Environ Health.* 2005;11:338-48.
- Boseley S. Political context of the World Health Organization: sugar industry threatens to scupper the WHO. *Int J Health Serv.* 2003; 33:831-3.
- Brown P. Republicans accused of witch-hunt against climate-change scientists. *Int J Health Serv.* 2006;36:417-9.

- Cannon G. Why the Bush administration and the global sugar industry are determined to demolish the 2004 WHO global strategy on diet, physical activity and health. *Public Health Nutr.* 2004;7:369-80.
- Carter GT, Mirken B. Medical marijuana: politics trumps science at the FDA. *MedGenMed.* 2006 May 17;8(2):46.
- Castleman B. Asbestos products, hazards, and regulation. *Int J Health Serv.* 2006;36:295-307.
- Castleman BI. Legacy of corporate influence on threshold limit values and European response. *Re: Am J Ind Med.* 44: 204-213, 2003. *Am J Ind Med.* 2006;4(4):307-9.
- Castleman B. "Controlled use" of asbestos. *Int J Occup Environ Health.* 2003;9:294-8.
- Castleman B. WTO confidential: the case of asbestos. *New Solut.* 2003;13:73-85.
- Castleman BI. Controversies at international organizations over asbestos industry influence. *Int J Health Serv.* 2001;31:193-202.
- Castleman BI, Ziem GE. American Conference of Governmental Industrial Hygienists: low threshold of credibility. *Am J Ind Med.* 1994;26:133-43.
- Cuomo P. Regulation of biotechnology by executive orders: questions about constitutionality, legality and overall fairness to the American public. *J Biolaw Bus.* 2005;8:30-42.
- Davidoff F. Sex, politics, and morality at the FDA: reflections on the Plan B decision. *Hastings Cent Rep.* 2006;36(2):20-5.
- DeAngelis CD. The influence of money on medical science. *JAMA.* 2006;296:996-8.
- Dorfman L, Wallack L, Woodruff K. More than a message: framing public health advocacy to change corporate practices. *Health Educ Behav.* 2005 Jun;32:320-36; discussion 355-62.
- Driscoll T, Nelson DI, Steenland K, et al. The global burden of disease due to occupational carcinogens. *Am J Ind Med.* 2005;48:419-31.
- Egilman DS, Bohme SR. Chevron-Texaco's science. *Int J Occup Environ Health.* 2005;11:456-7.
- Egilman D, Tweedale G, McCulloch J, et al. P.W.J. Bartrip's attack on Irving J. Selikoff. *Am J Ind Med.* 2004;46:151-5.
- Egilman D, Kim J, Biklen M. Proving causation: the use and abuse of medical and scientific evidence inside the courtroom—an epidemiologist's critique of the judicial interpretation of the Daubert ruling. *Food Drug Law J.* 2003;58:223-50.
- Epstein SS, Ashford N, Castleman B, Mazzocchi A, Young QD. The crisis in U.S. and international cancer policy. *Epidemiol Prev.* 2003;27:175-7.
- Ferber D. Science and government. HHS intervenes in choice of study section members. *Science.* 2002;298(5597):1323.
- Ferber D. Environmental health. Critics see a tilt in a CDC science panel. *Science.* 2002;297(5586):1456.
- Ferber D. Environmental science. NIEHS toxicologist receives a 'gag order'. *Science.* 2002;297(5583):915-6.
- Gee D. Late lessons from early warnings: toward realism and precaution with endocrine-disrupting substances. *Environ Health Perspect.* 2006;114 suppl 1:152-60.
- Gee D, Krayner von Krauss MP. Late lessons from early warnings: towards precaution and realism in research and policy. *Water Sci Technol.* 2005;52(6):25-34.
- Gorman T, Watterson A. Confronting the continuing problem of asbestos in Scotland: report on a Scottish public sector initiative for the 21st century. *New Solut.* 2004;14:77-98.
- Gennaro V, Tomatis L. Business bias: how epidemiologic studies may underestimate or fail to detect increased risks of cancer and other diseases. *Int J Occup Environ Health.* 2005;11:356-9.
- Grandjean P. Non-precautionary aspects of toxicology. *Toxicol Appl Pharmacol.* 2005;207 suppl 2652-7.
- Grandjean P, Bailer JC, Gee D, et al. Implications of the precautionary principle in research and policy-making. *Am J Ind Med.* 2004;45:382-5.
- Hadley C. Science policy in the USA. Sweeping changes to government science under the Bush administration may have caused long-term damage, scientists fear. *EMBO Rep.* 2004;5:932-5.
- Hardell L, Walker MJ, Walhjalt B, Friedman LS, Richter ED. Secret ties to industry and conflicting interests in cancer research. *Am J Ind Med.* 2006; [Epub]. DOI: 10.1002/ajim.20357
- Haseman J, Melnick R, Tomatis L, Huff J. Carcinogenesis bioassays: study duration and biological relevance. *Food Chem Toxicol.* 2001;39:739-44.
- Huff J. Bisphenol A and carcinogenesis. *Scientist.* 2005;19(17):8.
- Huff J, Melnick R, Tomatis L, LaDou J, Teitelbaum D. Tri-chloroethylene and cancers in humans. *Toxicology.* 2004;197:185-7.
- Huff J. IARC and the DEHP quagmire. *Int J Occup Environ Health.* 2003;9:402-4.
- Huff J. Does exposure to bisphenol A represent a human health risk? *Regul Toxicol Pharmacol.* 2003;37:407-8; author reply 409-10.
- Huff J. Industry influences IARC carcinogenesis evaluations. *Int J Occup Environ Health.* 2003;9:83-4.
- Huff J. Carcinogenicity of bisphenol A revisited. *Toxicol Sci.* 2002;70:281-3.
- Huff J, Castleman B, LaDou J, et al. Primary prevention of cancer. *Scientist* 2002;16(18):10-1.
- Huff J. Carcinogenicity bioassays of bisphenol A, 4-vinylcyclohexene diepoxide, and 4-vinylcyclohexene. *Toxicol Sci.* 2001;64(2):282-3.
- Huff J. Carcinogenicity of bisphenol-A in Fischer rats and B6C3F1 mice. *Odontology.* 2001;89(1):12-20.
- Huff J. Sawmill chemicals and carcinogenesis. *Environ Health Perspect.* 2001;109:209-12.
- Huff J, Tomatis L. Re: Long-term toxicity and carcinogenicity study of cyclamate in nonhuman primates (Takayama et al. *Toxicol Sci.* 53, 33-39). *Toxicol Sci.* 2000;57:186.
- Huff J. Alpha-2-u-globulin nephropathy, posed mechanisms, and white ravens. *Environ Health Perspect.* 1996;104:1264-1267.
- Huff J. Mechanisms, chemical carcinogenesis, and risk assessment: cell proliferation and cancer. *Am J Ind Med.* 1995;27:293-300.
- Infante PF. The past suppression of industry knowledge of the toxicity of benzene to humans and potential bias in future benzene research. *Int J Occup Environ Health.* 2006;12:268-72.
- Infante PF. Safeguarding scientific evaluations by governmental agencies: case study of OSHA and the 1,3-butadiene classification. *Int J Occup Environ Health.* 2005;11:372-7.
- Infante PF, Schuman LD, Huff J. Fibrous glass insulation and cancer: response and rebuttal. *Am J Ind Med.* 1996;30:113-20.
- Infante PF, Schuman LD, Dement J, Huff J. Fibrous glass and cancer. *Am J Ind Med.* 1994;26:559-84.
- Jacobson MF. Editorial on the politics of salt and blood pressure. *Kidney Int.* 2007;71:85-6.
- Jacobson MF. Lifting the veil of secrecy from industry funding of non-profit health organizations. *Int J Occup Environ Health.* 2005;11:349-55.
- Jacobson MF, Clapp R, Legator M, Lijinsky W, Reuber MD. The safety of many significant chemicals to which humans may be exposed. *Int J Occup Environ Health.* 2002;8:279-80.
- Jacobson MF, Farber E, Clapp R. Re: Long-term feeding of sodium saccharin to nonhuman primates: implications for urinary tract cancer. *J Natl Cancer Inst.* 1998;90(12):934-6.
- Johansson M, Partanen T. Role of trade unions in workplace health promotion. *Int J Health Serv.* 2002;32:179-93.
- Johnson FM, Huff J. Bioassay bashing is bad science. *Environ Health Perspect.* 2002;110:A736-7.
- Joshi TK, Bhuvu UB, Katoch P. Asbestos ban in India: challenges ahead. *Ann NY Acad Sci.* 2006;1076:292-308.
- Kennedy D. Back to the people. *Science.* 2006;313(5788):733.
- Kennedy D. Science, law, and the IBM case. *Science.* 2004;305(5682):309.
- Kennedy D. Climate change and climate science. *Science.* 2004;304(5677):1565.
- Kennedy D. Disclosure and disinterest. *Science.* 2004;303(5654):15.
- Kennedy D. An epidemic of politics. *Science.* 2003;299(5607):625.
- Kennedy D. When science and politics don't mix. *Science.* 2002;296(5574):1765.
- Krimsky S. The weight of scientific evidence in policy and law. *Am J Public Health.* 2005;95 suppl 1:S129-36.
- Krimsky S. Introduction to special issue of accountability in research on conflict of interest in science. *Account Res.* 2004;11(2):79-81.
- Krimsky S. Science on trial: conflicts of interest jeopardize scientific integrity and public health. *Genewatch.* 2003;16(5):3-6.
- LaDou J. Printed circuit board industry. *Int J Hyg Environ Health.* 2006;209(3):211-9.
- Landrigan P, Collegium Ramazzini. Dr. T. K. Joshi and asbestos in India: a message from the Collegium Ramazzini. *Am J Ind Med.* 2004; 45:125-8.
- Lawler A, Kaiser J. U.S. science policy. Report accuses Bush administration, again, of 'politicizing' science. *Science* 2004; 305(5682):323-5. Erratum in: *Science* 2004;305(5688):1240.

- Lesser LI, Ebbeling CB, Goozner M, Wypij D, Ludwig DS. Relationship between funding source and conclusion among nutrition-related scientific articles. *PLoS Med.* 2007;4(1):e5. doi: 1371/journal.pmed.0040005
- Mehlman MA. Methyl-tertiary-butyl-ether (MTBE) misclassified. *Am J Ind Med.* 2001;39:505-8.
- Mehlman MA. Misclassification of carcinogenic methyl tertiary butyl ether (MTBE) by the National Toxicology Program Board: smokescreen in, science out? *Arch Environ Health.* 2000;55:73-4.
- Mehlman MA. Cancer risk from exposure to motor fuel containing MTBE: "reasonably anticipated to be a human carcinogen." *Int J Occup Environ Health.* 1999;5:323-4.
- Melnick RL. A Daubert motion: a legal strategy to exclude essential scientific evidence in toxic tort litigation. *Am J Public Health.* 2005;95 suppl 1:S30-4.
- Melnick RL, Huff J. Testing toxic pesticides in humans: health risks with no health benefits. *Environ Health Perspect.* 2004;112:A459-61.
- Melnick RL. Carcinogenicity and mechanistic insights on the behavior of epoxides and epoxide-forming chemicals. *Ann NY Acad Sci.* 2002;982:177-89.
- Melnick RL. The IARC evaluation of di(2-ethylhexyl)phthalate (DEHP): a flawed decision based on an untested hypothesis. *Int J Occup Environ Health.* 2002;8:284-6.
- Melnick RL. Is peroxisome proliferation an obligatory precursor step in the carcinogenicity of di(2-ethylhexyl)phthalate (DEHP)? *Environ Health Perspect.* 2001;109:437-42.
- Melnick RL, Kohn MC, Huff J. Weight of evidence versus weight of speculation to evaluate the alpha2u-globulin hypothesis. *Environ Health Perspect.* 1997;105:904-6.
- Melnick RL, Kohn MC, Portier CJ. Implications for risk assessment of suggested nongenotoxic mechanisms of chemical carcinogenesis. *Environ Health Perspect.* 1996;104 suppl 1:123-34.
- Melnick RL. Critique does not validate assumptions in the model on alpha 2u-globulin and renal carcinogenesis. *Regul Toxicol Pharmacol.* 1993;18:365-8.
- Melnick RL, Huff J. Liver carcinogenesis is not a predicted outcome of chemically induced hepatocyte proliferation. *Toxicol Ind Health.* 1993;9:415-38.
- Melnick RL. An alternative hypothesis on the role of chemically induced protein droplet (alpha 2u-globulin) nephropathy in renal carcinogenesis. *Regul Toxicol Pharmacol.* 1992;16(2):111-25.
- Melnick RL. Does chemically induced hepatocyte proliferation predict liver carcinogenesis? *FASEB J.* 1992;6:2698-706.
- Meyer A. Bringing science back to the people. *Catalyst.* 2004 spring;3:2-4. <<http://www.ucusa.org/publications/catalyst/sp04-catalyst-restoring-scientific-integrity-to-policy-making.html>>.
- Michaels D. Manufactured uncertainty: protecting public health in the age of contested science and product defense. *Ann NY Acad Sci.* 2006;1076:149-62.
- Michaels D, Monforton C, Lurie P. Selected science: an industry campaign to undermine an OSHA hexavalent chromium standard. *Environ Health.* 2006;5:5.
- Michaels D, Wagner W. Science and government. Disclosure in regulatory science. *Science.* 2003;302(5653):2073.
- Michaels D, Bingham E, Boden L, et al. Advice without dissent. *Science.* 2002;298(5594):703.
- Mirer FE. Mortality results for polyurethane manufacture understated. *Occup Environ Med.* 2003;60:459
- Mirer FE. RE: MTBE misclassified. *Am J Ind Med.* 2001;39:509-10.
- Mitis F, Martuzzi M, Biggeri A, Bertollini R, Terracini B. Industrial activities in sites at high environmental risk and their impact on the health of the population. *Int J Occup Environ Health.* 2005;11:88-95.
- Mooney C. *The Republican War on Science.* Basic Books · A Member of the Perseus Books, Cambridge, MA. 2005-2007. 351 pp
- Needleman HL, Reigart JR, Landrigan P, Sass J, Bearer C. Benefits and risks of pesticide testing on humans. *Environ Health Perspect.* 2005;113:A804-5.
- Needleman H. Standing up to the lead industry: an interview with Herbert Needleman. Interview by David Rosner and Gerald Markowitz. *Public Health Rep.* 2005;120:330-7.
- Neff RA, Goldman LR. Regulatory parallels to Daubert: stakeholder influence, "sound science," and the delayed adoption of health-protective standards. *Am J Public Health.* 2005;95 suppl 1:S81-91.
- Oleskey C, Fleischman A, Goldman L, et al. Pesticide testing in humans: ethics and public policy. *Environ Health Perspect.* 2004; 112:914-9.
- Ozonoff D. Legal causation and responsibility for causing harm. *Am J Public Health.* 2005;95 suppl 1:S35-8.
- Parsons SK, Mayer DK. Cancer-related health policy: beyond the smoke and mirrors. *Semin Oncol Nurs.* 2002;18(4):241-51.
- Samuels SW. On an ethic of occupational and environmental medicine: response to doctors Guidotti, Lippin, Key, and anonymous. *J Occup Environ Med.* 2005;47:981-2.
- Samuels SW. Occupational medicine and its moral discontents. *J Occup Environ Med.* 2003;45:1226-33.
- Sass JB, Colangelo A. European Union bans atrazine, while the United States negotiates continued use. *Int J Occup Environ Health.* 2006;12:260-7.
- Sass J. Credibility of scientists: conflict of interest and bias. *Environ Health Perspect.* 2006;114:A147-8.
- Sass J, Solomon G. Inappropriate influence by industry on EHP news article. *Environ Health Perspect.* 2005;113:A87-8.
- Sass J. U.S. Department of Defense and White House working together to avoid cleanup and liability for perchlorate pollution. *Int J Occup Environ Health.* 2004;10:330-4.
- Sass JB, Needleman HL. Human testing: Sass and Needleman respond to industry. *Environ Health Perspect.* 2004;112:A340-1.
- Sass JB, Needleman HL. Industry testing of toxic pesticides on human subjects concluded "no effect," despite the evidence. *Environ Health Perspect.* 2004;112:A150-1
- Sass JB, Devine JP Jr. The Center for Regulatory Effectiveness invokes the Data Quality Act to reject published studies on atrazine toxicity. *Environ Health Perspect.* 2004;112:A18.
- Sass J. Continued insensitivity to conflicts of interest at IARC. *Int J Occup Environ Health.* 2003;9:88-9.
- Sass J. Lead IARC towards compliance with WHO/IARC Declaration of Interests (DOI) policy. *Int J Occup Environ Health.* 2002;8: 277-8.
- Sass JB, Greer L. Re: concern that working group members who will be assessing styrene have financial conflicts of interest. *Int J Occup Environ Health.* 2002;8:153-5.
- Sci Amer Editorial. Bush-League Lysenkoism. The White House bends science to its will. *Sci Amer* 26 April 2004.
- Scout, Egilman D. The case of chromium(VI). *Int J Occup Environ Health.* 2006;12:426-8.
- Shulman S. *Undermining Science: Suppression and Distortion in the Bush Administration.* University of California Press, Berkeley, CA: 2007. 202 pp.
- Silbergeld EK. Commentary: the role of toxicology in prevention and precaution. *Int J Occup Med Environ Health.* 2004;17:91-102.
- Silbergeld EK. Arsenic in food. *Environ Health Perspect.* 2004; 112:A338-9.
- Smith R. Curbing the influence of the drug industry: a British view. *PLoS Med.* 2005;2(9):e241.
- Steinbrook R. Science, politics, and federal advisory committees. *N Engl J Med.* 2004;350:1454-60.
- Soffritti M. Response: Aspartame not linked to cancer. *Environ Health Perspect.* 2007;115:A17.
- Stirling A, Gee D. Science, precaution, and practice. *Public Health Rep.* 2002;117:521-33.
- Terracini B. The scientific basis of a total asbestos ban. *Med Lav.* 2006;97:383-92.
- Terracini B. Carcinogenicity of pesticides: is everything under control? *Int J Occup Environ Health.* 2002;8:73-5.
- Thayer KA, Melnick R, Huff J, Burns K, Davis D. Hormesis: a new religion? *Environ Health Perspect.* 2006;114:A632-3.
- Thayer KA, Melnick R, Burns K, Davis D, Huff J. Fundamental flaws of hormesis for public health decisions. *Environ Health Perspect.* 2005;113:1271-6.
- Tomatis L. Identification of carcinogenic agents and primary prevention of cancer. *Ann NY Acad Sci.* 2006;1076:1-14.
- Tomatis L. Role of experimental and epidemiological evidence of carcinogenicity in the primary prevention of cancer. *Ann Ist Super Sanita.* 2006;42:113-7.
- Tomatis L. Primary prevention of cancer in relation to science, sociocultural trends and economic pressures. *Scand J Work Environ Health.* 2005;31:227-32.
- Tomatis L. [Lucio Luzzato's dismissal from Genoa Cancer Institute: an ignoble farce]. *Epidemiol Prev.* 2004;28(2):71-2. [In Italian]

- Tomatis L, Huff J. Evolution of research on cancer etiology. Chapter 9:189-201. In: Coleman WB, Tsongalis GJ (eds). *The Molecular Basis of Human Cancer: Genomic Instability and Molecular Mutation in Neoplastic Transformation*. Totowa, NJ: Humana Press, 2002.
- Tomatis L, Huff J. Evolution of cancer etiology and primary prevention. *Environ Health Perspect*. 2001;109:A458-60.
- Tomatis L, Melnick RL, Haseman J, Barrett JC, Huff J. Alleged misconceptions distort perceptions of environmental cancer risks. *FASEB J*. 2001;15:195-203.
- Tomatis L. The identification of human carcinogens and primary prevention of cancer. *Mutat Res*. 2000;462:407-21.
- Tomatis L, Huff J. Evidence of carcinogenicity of DDT in nonhuman primates. *J Cancer Res Clin Oncol*. 2000r;126:246.
- Tomatis L, Huff J, Hertz-Picciotto I, et al. Avoided and avoidable risks of cancer. *Carcinogenesis*. 1997;18:97-105.
- Union of Concerned Scientists. Restoring scientific integrity in policymaking. 2004 18 Feb. <<http://www.ucsusa.org/>> Text: <http://www.ucsusa.org/scientific_integrity/interference/scientists_signon-statement.html> Sign statement: <http://www.ucsusa.org/forms/RSI_sciform.html>.
- Wagner W, Steinzor R (eds). *Rescuing Science from Politics: Regulation and the Distortion of Scientific Research*. Cambridge University Press, 2006. (also CRC White Paper #604, Center for Progressive Reform. 2006 Aug;1-10. <http://www.progressivereform.org/issue_science.cfm#rescue>)
- Waldman P. Common Industrial Chemicals in Tiny Doses Raise Health Issue. Advanced Tests Often Detect Subtle Biological Effects; Are Standards Too Lax? Getting in Way of Hormones. *Wall Street Journal*, July 25, 2005
- Watterson A. Regulation of occupational health and safety in the semiconductor industry: enforcement problems and solutions. *Int J Occup Environ Health*. 2006;12:72-80.
- Watterson A, O'Neill R. The decline and imminent fall of U.K. governmental occupational health: a tale of forgotten lessons and missed opportunities. *Int J Occup Environ Health*. 2004;10:340-2.
- Watterson A, LaDou J; Phase Two. Health and safety executive inspection of U.K. semiconductor manufacturers. *Int J Occup Environ Health*. 2003;9:392-5.
- Watterson A. Pesticide health and safety and the work and impact of international agencies: partial successes and major failures. *Int J Occup Environ Health*. 2001;7:339-47.
- Wing S. Objectivity and ethics in environmental health science. *Environ Health Perspect*. 2003;111:1809-18.
- Wing S. Social responsibility and research ethics in community-driven studies of industrialized hog production. *Environ Health Perspect*. 2002;11:437-44.

APPENDIX

Environmental and Watchdog Organizational Web Sites

Air Quality links <http://www.phf.org/EH/outdoor_air_quality.htm>
Alliance for a Healthy Tomorrow: <www.healthytomorrow.org>
Global Environmental Health links <http://www.phf.org/EH/global_environmental_health.htm>
California Environmental Protection Agency (Cal/EPA); Office of Environmental Health Hazard Assessment (OEHHA) <<http://www.oehha.ca.gov/>>; <<http://www.oehha.ca.gov/prop65.html>>
Center for Progressive Regulation: <<http://www.progressiveregulation.org/>>
Center for Science in the Public Interest [CSPI]: <<http://www.cspinet.org/index.html>>
Chemical Injury Information Network (CIIN): <<http://ciin.org/>>
Children's Environmental Health Network: <<http://www.cehn.org/>>
Defending Science: <<http://DefendingScience.org/>>
Environmental Defense: <<http://www.environmentaldefense.org/home.cfm>>
Environmental Health News: <<http://www.environmentalhealthnews.org/>>
Environmental Protection Agency: <<http://www.epa.gov/tri/>>
Environmental Public Health Tracking Program [CDC]: <<http://www.cdc.gov/nceh/tracking/>>
Environmental Working Group [EWG]: <<http://www.ewg.org/>>
Government Accountability Project: <<http://www.whistleblower.org/>>
Healthy People: <<http://www.healthypeople.gov/>>
Healthy People 2010 & Environmental, Health Outdoor Air Quality:
<http://www.phf.org/EH/outdoor_air_quality.htm>
Healthy People 2010 & Environmental, Health Global Environmental Health
<http://www.phf.org/EH/global_environmental_health.htm>
IARC Monographs [International Agency for Research on Cancer]: <<http://193.51.164.11/>>
Integrity in Science [CSPI]: <<http://cspinet.org/integrity/>>
Intergovernmental Forum on Chemical Safety [IFCS/WHO]: <<http://www.who.int/ifcs/>>
National Defense Scorecard: <<http://www.scorecard.org/>>
National Pesticide Information Center: <<http://npic.orst.edu/>>
National Resources Defense Council [NRDC]: <<http://www.nrdc.org/>>
National Toxicology Program: <<http://ntp-server.niehs.nih.gov/>>
National Women's Health Information Center: <<http://www.4woman.gov/>>
NRDC Nature's Voice: <<http://nrdc.org/naturesvoice/>>
NTP Report on Carcinogens: <<http://ntp-server.niehs.nih.gov/NewHomeRoc/AboutRoC.html>>
Occupational Safety and Health, UAW: <<http://www.uaw.org/hs/index.html>>
OMB Watch: <<http://www.ombwatch.org/>>
Pesticide Action Network [PAN]: <<http://www.panna.org/>>
Physicians for Social Responsibility: <<http://www.psr.org/home.cfm?id=home>>
Politics & Science: <<http://www.house.gov/reform/min/politicsandscience/>>
POPs Hot Spots Map: <<http://ipen.ecn.cz/map/>>
Public Citizen: <<http://www.citizen.org/hrg/>>; <<http://www.citizen.org/hrg/>>
Public Health Foundation: <<http://www.phf.org/>>
Public Interest Research Group [PIRG]: <<http://www.pirg.org/>>
Rachel Carson: <<http://www.rachelcarson.org/>>
Rachel Carson Council: <<http://members.aol.com/rccouncil/ourpage/>>
Rachel's Environment Health News, Environmental Research Foundation, New Brunswick, NJ 08903,
<<http://www.rachel.org>>
Science and Environmental Health Network: <<http://www.sehn.org/index.html>>
Silent Spring Institute: <<http://www.silentspring.org/>>
Silicon Valley Toxics Coalition (SVTC): <svtc@svtc.org>
Union of Concerned Scientists [UCS]: <<http://www.ucsusa.org/>>
Washington Toxics Coalition: <<http://www.watoxics.org/pages/root.aspx>>
World Wildlife Fund: <<http://www.worldwildlife.org/>>