Tobacco Industry Efforts to Undermine Policy-Relevant Research

Anne Landman, BA, and Stanton A. Glantz, PhD

The tobacco industry, working through third parties to prevent policy-relevant research that adversely affected it between 1988 and 1998, used coordinated, well-funded strategies in repeated attempts to silence tobacco researcher Stanton A. Glantz. Tactics included advertising, litigation, and attempts to have the US Congress cut off the researcher's National Cancer Institute funding. Efforts like these can influence the policymaking process by silencing opposing voices and discouraging other scientists from doing work that may expose them to tobacco industry attacks. The support of highly credible public health organizations and of researchers' employers is crucial to the continued advancement of public health. (Am J Public Health. 2009;99:45-58. doi:10.2105/AJPH.2007. 130740)

Public policy intervention-e.g., aggressive public-education campaigns, mandated smokefree environments, and high cigarette taxes-is the most effective way to reduce tobaccocaused disease. 1,2 The prosperity of the tobacco industry depends on prevention of these policies and maintenance of a supportive policy environment. Among other strategies for safeguarding its interests, 3-10 the tobacco industry attempts to counteract or obstruct the work of researchers whose work may be detrimental to tobacco industry interests. 11,12 To that end, the industry has portrayed targeted researchers as extremist, unqualified, or politically motivated; denigrated researchers to superiors, publishers, and the public; sued researchers; and worked to cut off researchers' funding. The industry pursues these strategies through allied elected officials, front groups, and other third parties. These efforts can influence the policymaking process by silencing voices critical of tobacco industry interests and discouraging other scientists from doing research that may expose them to industry attacks.

The case of tobacco control researcher Stanton Glantz, an author of this paper, illustrates the full range of strategies used by the tobacco industry to attack scientists whose work supports tobacco control. Documentation of these events is based on searches between February and November 2006 of the Legacy Tobacco Documents Library (http://legacy.library.ucsf.edu), which located approximately 500 documents that described tobacco industry activities pertaining to Glantz's research and funding. Initial search terms included "Glantz [including misspellings] and funding" and "Glantz and NCI [National Cancer Institute]," followed by searches for specific individuals and groups. We also examined documents from Glantz's own files pertaining to tobacco industry lawsuits against the University of California, San Francisco (where Glantz is a faculty member), media articles concerning Glantz's tobacco-related research, relevant correspondence, and other pertinent materials.

DEATHS FROM SECONDHAND TOBACCO SMOKE

The tobacco industry's monitoring of Glantz's early tobacco-related research appears in a 1990 dossier prepared by law firm Shook Hardy and Bacon in 1990.13 The dossier describes Glantz's May 21, 1990, presentation of research (with coauthor William Parmley) at the World Conference on Lung Health, which concluded that secondhand tobacco smoke (SHS) caused approximately 53 000 nonsmoker deaths a year, including 37 000 from heart disease.¹⁴ This presentation led to a full-page New York Times story covering the research, 15 which provoked the Tobacco Institute, the tobacco industry's lobbying and public relations arm, to send the New York Times a 2-page letter to the editor that read, in part: "The discussion of Glantz's

theories as if they were accepted scientific thinking is an error that one does not expect from the New York Times.... The reporting was uncritical, unsupportable and unbalanced."16 After the New York Times failed to publish the letter, a number of people wrote letters to the New York Times protesting the paper's failure to publish a response to Glantz and Parmley's conclusions.¹⁷ None of these letter-writers revealed that they were actually members of the Tobacco Institute's secret Scientific Witness Program¹⁸ (Table 1).

The figure of 37 000 cardiac deaths per year from SHS was featured prominently in a US Environmental Protection Agency (EPA) technical compendium 69 on SHS published as a supplement to an EPA risk assessment of passive smoking, lung cancer, and respiratory disease.⁷⁰ When a draft of the compendium was released 5 months after the New York Times story, tobacco companies raised a furor 11,71 and the EPA distanced itself from the figures. 72,73 On June 6, 1990, tobacco industry ally Representative Thomas Bliley (R, VA) wrote the following to the administrator of the EPA: "Stanton Glantz . . . advanced the outlandish claim, which is plainly unsupported by credible scientific evidence, that 30000 non-smoking Americans die of heart disease each year as a result of exposure to ETS [environmental tobacco smoke, the industry's term for secondhand smoke]. Such activity makes a mockery of EPA's procedures."⁷¹ Bliley subsequently helped implement political and administrative tactics designed by tobacco company Philip Morris USA-its "sand in the gears" strategy^{11,74(p6011)}-that delayed EPA's risk assessment for 2.5 years, until December 1992.11 The EPA never published the technical compendium.

In January 1991, Glantz and Parmley published the research they presented at the 1990 Conference on Lung Health in the journal Circulation.14 The article generated another wave of news coverage⁷⁵ and provoked another round of industry damage control. Initially,

TABLE 1—Known Tobacco Industry Consultants and Associates Who Publicly Criticized Glantz and His Tobacco-Related Work, 1990–1997

Name	Field of Expertise	Affiliation	Relationship With Tobacco Industry and Criticism of Glantz
Decker, Walter J.	Toxicology	Toxicology Consultant Services, El Paso, TX, a subcontractor to Holcomb Environmental Services	Worked for Holcomb Environmental Services (Tobacco Institute consultant and contractor); wrote letter to the editor of <i>Circulation</i> criticizing Glantz and Parmley in 1990. 19,20
DiLorenzo, Thomas	Economics	University of Tennessee, Chattanooga, later of Loyola College, Baltimore, MD	Produced books funded by RJ Reynolds ^{21,22} that supported industry goal of reducing the influence of health charities; joined in attack on Glantz on 1995 TV show <i>Technopolitics</i> . ²³
Ecobichon, Donald	Toxicology	McGill University, Quebec, QC	Tobacco Institute scientific witness and consultant; wrote letter to the editor of the New York Times criticizing Glantz and Parmley in 1990. ²⁰
Evans, K. Michael	Economics	Evans, Carroll & Associates (formerly Evans Economics), Boca Raton, FL; Northwestern University, Evanston, IL	Research subcontractor for National Smokers Alliance ²⁴ ; produced the 1997 "Evans Report" criticizing Glantz and Smith's 1994 study of economic effects of smoking restrictions. ²⁵
Flamm, Gary	Toxicology	Science Regulatory Services International, Washington, DC	Tobacco Institute scientific witness and consultant; wrote letter to the <i>New York Time</i> criticizing coverage of Glantz and Parmley's research on SHS and cardiac disease in 1990 ²⁶ ; contributed to Tobacco Institute comments submitted to EPA opposing Glantz and Parmley's chapter of the EPA's technical compendium on SHS. ²⁷
Fleiss, Joseph	Biostatistics	Columbia University, New York, NY	Tobacco Institute scientific witness and consultant; sent editorial to the <i>New York</i> Times criticizing Glantz and Parmley in 1990. ²⁰
Gori, Gio Batta	Toxicology, epidemiology	Health Policy Center, Bethesda, MD	Tobacco Institute SHS consultant; wrote letter to the editor of the <i>New York Times</i> criticizing Glantz and Parmley in 1990. ²⁰
Handman, Steven	Unknown	American Smokers Alliance 130/10 Club, Holland, KY	Ran American Smokers Alliance 1988-1999, ^{28,29} a smokers'-rights group organized and supported by Philip Morris; organized 130/10 Club (a subset of American Smokers Alliance) that took out ad against Glantz in the <i>Washington Times</i> , 1995.
Holcomb, Larry	Zoology	Holcomb Environmental Services, Olivet, MI	Tobacco Institute scientific witness, consultant, and contractor; wrote letter to editor of <i>Circulation</i> criticizing Glantz and Parmley in 1990; subcontracted critiques from Pedelty & Decker in 1991. ³⁰
Huber, Gary L.	Pulmonology	Harvard Medical School, Boston, MA, later University of Texas Health Sciences Center, Tyler, TX	Tobacco industry consultant ^{31(pp320-321)} ; performed paid research for the industry ³²⁻³⁴ ; published a letter critiquing Glantz and Parmley in <i>Circulation</i> in 1991. ³⁵
Hull, Sally	Unknown	Missouri Department of Agriculture, Jefferson City, MO	Described as a tobacco industry "grower ally" by Philip Morris ^{36,37} ; researcher for American Smokers Alliance, 1995. ³⁸
Humber, Thomas	Public Relations	Brown & Williamson, 1981–1986; Philip Morris 1990; senior VP Burson Marsteller 1991–1993; president and CEO National Smokers Alliance, 1993–1997, Alexandria, VA	President and CEO of National Smokers Alliance 1993–1997, a grassroots lobbying group established by public-relations firm Burson Marstellar and financed by Philip Morris ³⁹⁻⁴² ; wrote letters to UCSF, OSHA, and periodicals criticizing Glantz ^{40,43-45} ; organized lawsuit against Glantz and UCSF by Californians for Scientific Integrity in 1997. ⁴⁶
Kilpatrick, James	Biostatistics	Medical College of Virginia, Richmond, VA	Tobacco Institute scientific witness and consultant; wrote letter to editor of the New York Times criticizing Glantz and Parmley in 1990. ²⁶
Lee, Peter N.	Statistics, epidemiology	Peter Lee Statistics and Computing, Surrey, England	Tobacco Institute statistical consultant; prepared and submitted letters critical of Glantz's work to <i>Journal of Clinical Epidemiology</i> . 47-51
Mantel, Nathan	Mathematics, statistics	American University, Bethesda, MD	Tobacco Institute statistical consultant ^{31(pp413-416),52,53} ; published article in Journal of Clinical Epidemiology criticizing Glantz and Parmley. ⁵⁴
Pedelty, Joe	Chemistry, biology	Holcomb Environmental Services, Olivet, MI	Worked for Holcomb Environmental Services (Tobacco Institute consultant and contractor); wrote letter to editor of Ft Worth, TX, <i>Star-Telegram</i> criticizing Glantz and Parmley. ^{30,55}

Continued

Perske, Martha	Illustrator	American Smokers Alliance, Nashville, TN	Representative of and researcher for American Smokers Alliance ⁵⁶ ; took media training at RJ Reynolds ⁵⁷ ; wrote letter to <i>Journal of Clinical Epidemiology</i>
			defending Mantel's critique of Glantz, 1993 ⁵⁸ ; communicated with RJ Reynolds
			scientists 1995-1996 ^{59,60} ; forwarded Ronhovdee report critical of Glantz to industry
			public-relations contractor and field organizer S. Caldeira in 1995^{61} ; wrote letter critical of Glantz to <i>JAMA</i> , $1996.^{62}$
Sepp, Pete	Unknown	National Taxpayers Union, Alexandria, VA	Spokesman for National Taxpayers Union, which was a recipient of Philip Morris funding ⁶³ and was listed as a Philip Morris ally ⁶⁴ ; criticized NCI funding of Glantz in a 1995 the <i>Washington Times</i> article. ⁶⁵
Thompson, Carl	Unknown	Ferret Research, Auburn, CA	Disseminated report in 1994 accusing Glantz of false and misleading research; issued 1994 press release accusing Glantz of misusing taxpayer funds. ^{66,67}
Will, James A.	Veterinary medicine	University of Wisconsin, Madison, WI	Contributed to Tobacco Institute comments submitted to EPA criticizing Glantz and Parmley's chapter of EPA's technical compendium on SHS, 1990. ²⁷
Wexler, Lawrence M.	Epidemiology	New York Medical College, Valhalla, NY	Contributed to Tobacco Institute comments submitted to EPA criticizing Glantz and Parmley's chapter of EPA's technical compendium on SHS, 1990. ^{27,68}
Wu, Joseph M.	Biochemistry, molecular biology	New York Medical College, Valhalla, NY	Tobacco Institute consultant and scientific witness; wrote letter to editor of the <i>New York Times</i> criticizing Glantz and Parmley, 1990. ²⁰

Note. SHS=secondhand smoke. EPA=US Environmental Protection Agency. UCSF=University of California, San Francisco. OSHA=US Occupational Safety and Health Administration. NCI=National Cancer Institute.

industry spokespeople openly challenged Glantz and Parmley in the popular press. 76,77 The director of smoking and health for tobacco company RJ Reynolds sent a letter to the editor of many newspapers⁷⁸ calling Glantz a "back door prohibitionist" who was "scaring the American public with outlandish claims that are simply not supported by scientific fact." (RJ Reynolds' public relations agency, Hill & Knowlton, had found the "back door prohibition" message to be most effective with the public.⁷⁹) After 1991, the industry moved from direct criticism to using third parties (Table 1).

Tobacco Institute consultant Joseph Wu, PhD, a professor of biochemistry and molecular biology at New York Medical College, drafted 3 versions of a letter to submit to Circulation that were critical of Glantz's work and faxed them to tobacco industry law firm Covington & Burling, seeking suggestions. $^{80-84}$ Wu submitted his letter to Circulation without disclosing his role as a tobacco industry consultant, 85 and even though Circulation rejected Wu's letter, the Institute still paid him \$3867 for writing it 86 (out of \$20000 the Institute had budgeted to pay Wu in 1991 to criticize Glantz's work⁸⁷). The Institute continued to pay consulting fees to Wu, including \$72 275 during the 1995–1996 fiscal year⁸⁸

(the only year for which a record of Wu's total payments were available).

Consultant Larry Holcomb, PhD, billed the Institute \$3825 (\$225 per hour) to produce a response to the *Circulation* paper.³⁰ Holcomb argued that Glantz and Parmley drew stronger conclusions than were warranted and that the studies failed to control for confounding variables like diet. Another Institute consultant, Walter Decker, PhD, wrote Circulation a letter arguing that the studies Glantz and Parmley examined were methodologically flawed, and he criticized Glantz and Parmley for including studies published in foreign languages. Decker billed Holcomb \$175 per hour for writing his letter, 89 which Holcomb then billed to the Tobacco Institute.⁸⁹ (Chemist and biologist Joe Pedelty, MSc, also billed Holcomb \$2975 for writing a letter, although we could not determine whether that letter was submitted to Circulation.) In all, 3 letters 19,90,91 appeared in Circulation criticizing Glantz and Parmley's work. All 3 were generated by the tobacco industry, but only 1 disclosed that fact. 91

In August 1992, American University biostatistician Nathan Mantel, PhD, published an article in the Journal of Clinical Epidemiology⁵⁴ that criticized the Circulation paper. (The editor of the Journal of Clinical Epidemiology, Alvan Feinstein, MD, was a long-time recipient of tobacco industry

funds through its secret lawyer-managed "special accounts."31[p330],92) In 1991, Mantel invoiced Philip Morris \$135 065 for work on SHS. A Philip Morris attorney later reported to Philip Morris' Scientific Affairs Department that "Mantel offered [to write] a response to Glantz and Parmley for approximately \$60000. We have declined the offer for budgetary reasons."93

The industry also funded statistical consultant Peter Lee, 94 MA, to criticize published studies linking smoking, SHS, and disease. 31,95 Over the years, Lee wrote editorials, articles, and letters to the editor criticizing Glantz and other researchers who published epidemiological studies on the health effects of SHS. 48,50,51,96,97 Lee billed Covington & Burling from \$750 to \$4000 per piece for criticizing Glantz's work, 50,51,97 and he made at least \$7750 between 1992 and 1993 doing so.

THE PHILIP MORRIS PLAN TO ATTACK FUNDING FOR TOBACCO RESEARCH

In 1994, Glantz won a 3-year, \$598686 (total costs) grant from the NCI to evaluate the effects of state and local advocacy on tobaccocontrol policy. 98 Glantz designed these activities to address needs identified in the 1989 US

Surgeon General's report, ⁹⁹ which called for research on tobacco industry lobbying activities and their effects on public health policy. One of the 5 project areas included in this grant involved tracking tobacco industry campaign contributions to state legislators and correlating them with legislators' behavior on tobacco issues.

A Philip Morris plan, written after the NCI grant was awarded, discussed Philip Morris' concern with researchers "who are ... conducting research which is faulty" and who "generate considerable media coverage of these studies."100 It noted that "the lack of rigorous challenge" to this research "creates an on-going problem for PM and the industry," and it stated, "We must change the environment." 100 The plan specifically focused on Glantz (the only researcher mentioned in the plan) and his NCI grant, saying that his grant "does nothing to advance the common goal of finding cures for cancer" and "it is anti-business and anti-jobs." Philip Morris proposed¹⁰⁰ to alter what it perceived as a troublesome scientific environment by "raising the issue of [scientists'] credibility and their integrity." The plan, titled "Action Plan: Scientists," proposed "exposing . . . scientists who engage in shoddy research to their peers and in the media," and it noted that "scientists are very concerned about the opinions their peers hold of them and their research." 100 The plan proposed "elevat[ing] the issue of public funding (primarily federal) to conduct anti-tobacco . . . research" 100 and using third parties to run advertisements attacking scientists:

First, we can take out ads in appropriate scientific journals that point out the flaw(s) in the study in question. While the issue of whose name appears in the ad's disclaimer is a subject for future discussion, there is no doubt that the careful use of these adworld be extremely embarrassing to those scientists whose methodology, data and conclusions are demonstrably wrong. 100 (Emphasis added.)

Philip Morris' action plan also proposed writing to "the [scientists'] appropriate dean or department head raising questions about the validity of a scientists' work." The plan repeatedly emphasized the need to "become more proactive, utilizing credible third parties more effectively ... [and] encourage more participation by credible, third parties.... [W]e must use credible third-parties more effectively and more creatively to help carry our messages." Activities were to be carried out quietly to avoid drawing attention to Philip Morris:

We can and should reach out to our allies on Capitol Hill, particularly those serving on authorizing and appropriations committees. With the Republican takeover of the House and Senate, the message to the [government public health] agencies must be: "funding sloppy tobacco research is no longer 'cost-free." ... Strategically, however, we must always be careful of the danger of raising tobacco's profile on Capitol Hill.¹⁰⁰ (Emphasis added.)

Philip Morris' actions, taken in concert with those of RJ Reynolds and others, indicate that the Philip Morris plan was implemented. Table 2 indicates the correlation between Philip Morris' Action Plan and events that actually occurred.

In February 1995, Marty Ronhovdee, 38 a researcher for the American Smokers Alliance, compiled and circulated a report critical of Glantz and his grant, portraying NCI as misusing taxpayers' money to fund a "witch hunt" and diverting funds away from its "primary obligation" to conduct cancer research. 105 (The American Smokers Alliance was formed when Philip Morris spent \$10000 to bring 40 smokers to an initial meeting in Atlanta, Georgia.²⁸ After the organization was formed, Philip Morris provided it with a 10000-name mailing list¹⁰⁶ and at least \$35,000 in 1994 and 1995 for "grassroots mobilization."107,108) As an example of NCI's socalled misuse of taxpayers' money, Ronhovdee cited Glantz's research on the influence that tobacco industry campaign contributions might have on state legislators' policymaking behavior. (Subsequent research established that this influence existed. 109-112) The Ronhovdee report conformed to the strategy Philip Morris explicated in its action plan to generate opposition to public funding of tobacco-control research.¹⁰⁰

Ronhovdee circulated her report to other smokers' rights activists, including Martha Perske and Jackie Miller. 113 Nominally an independent smokers' rights advocate, Perske completed media training at RJ Reynolds⁵⁷ and was in direct contact with RJ Reynolds employees and representatives. 59,60,114-118 Perske wrote letters to academic journals, newspapers, and legislators to advance industry views on SHS and forwarded any replies she received to RJ Reynolds. 119,120 When Glantz and Parmley 121 responded to Nathan Mantel's 1992 paper in the Journal of Clinical Epidemiology by pointing out Mantel's relationship with the tobacco industry, the journal's editor published a personal defense of Mantel written by Perske.⁵⁸ Perske also

forwarded information to public-relations firm Walt Klein & Associates of Winston-Salem, North Carolina, 122 who contracted with RJ Reynolds and Philip Morris to organize grassroots opposition to smoking restrictions, 3 promote industry "youth smoking prevention" programs, 123 and organize front groups like the Coalition for Responsible Retailing to fight cigarette tax increases. 124–126 Miller was vice president of the Florida Smokers Rights Association, a group managed by an RJ Reynolds public-issues field coordinator. 127 The Ronhovdee report was also sent to an RJ Reynolds employee who was president of the North Carolina Smokers Rights Association, 128 who circulated it within RJ Reynolds. 129

Shortly after Ronhovdee circulated her report, an ad¹⁰¹ appeared in the Washington Times on March 14, 1995, attacking Glantz and his NCI grant (Figure 1). The ad reflected Philip Morris' strategy, outlined in its action plan, to have third parties run ads to embarrass scientists. 100 The ad copy asked readers to clip the ad from the newspaper, write a short personal note at the bottom of it, and mail it to their congressperson. The ad copy identified the ad's sponsor as "the 130/10 Club, a group of citizens who chip in \$10 a month to expose government waste and express our opinions to the government." The ad gave no other information about the 130/10 Club, which was operated by Steve Handman, president of the Philip Morris-supported American Smokers Alliance. A Philip Morris representative denied any involvement in "this Glantz effort" to USA Today. 130

On April 11, 1995 (3.5 weeks after the 130/10 Club ad appeared), the Washington Times ran an article attacking Glantz's NCI grant, calling it overly political and inappropriate for the NCI. $^{65}\,$ The article quoted a spokesman for Representative John Porter (R, IL), chair of the House Appropriations subcommittee responsible for the NCI's budget, who said, "NCI has gone beyond its mandate to conduct clinical and behavioral research regarding cancer" and should not have funded the grant. (The global headquarters of Kraft Foods, then a Philip Morris subsidiary, is located in Porter's congressional district.) The Washington Times also quoted the National Taxpayers Union's criticism of the grant. (Philip Morris supported the National Taxpayers Union 131,132 as part of a strategy to enlist antitax groups as thirdparty allies to carry out letter-writing campaigns that would "raise havoc" and "generate some real

TABLE 2-Strategies Listed in Philip Morris' Draft "Action Plan: Scientists" and Events Involving Glantz, 1991-1997

Philip	Morris Action Plan ¹⁰⁰	Actual Events
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"We can prepare and place letters to the editor [criticizing scientists] in appropriate scientific journals, including those the work was published in, and other leading journals."

- 1991: Tobacco Institute consultants Decker and Holcomb publish letters criticizing Glantz and Parmley's article in Circulation. Other Institute contractors write letters to the New York Times criticizing coverage of Glantz and Parmley's research. Industry consultants Gori, Kilpatrick, Wu, Pedelty, Ecobichon, and Lee draft letters and op-ed pieces critical of Glantz for journals and newspapers.
- 1992: Mantel publishes letter critical of Glantz and Parmley's Circulation article in the Journal of Clinical Epidemiology.
- "Elevate the issue of using public funds (primarily federal) to conduct anti-tobacco . . . research." "[W]e can take out ads . . .that point out the flaws of the study in question. . . .
- [T]here is no doubt that the careful use of these ads would be extremely embarrassing to those scientists whose methodology, data and conclusions are demonstrably wrong."
- "It should be noted that public interest groups like Common Cause already conduct this kind of study every year and release the results at no cost to the public."
- "The issue of public funding, especially federal funding, should become an issue we pursue in the legislative arena. For example, the National Cancer Institute's \$600,000 grant to Stanton Glantz . . . does nothing to advance the common goal of finding cures for cancer."
- "We can and should reach out to our allies on Capitol Hill, particularly those serving on authorizing and appropriations committees."
- "[W]e can send a letter to the [scientist's] appropriate dean or department head raising questions about the validity of a scientist's work."

February 1995: Marty Ronhovdee, a member of the Philip Morris-funded American Smokers Alliance, composes and widely circulates a report critical of Glantz and his NCI funding. March 14, 1995: The Washington Times runs a 130/10 Club ad attacking Glantz and NCI. 101

- May 28, 1995: A Washington Times editorial says, "Only weeks ago Common Cause published an analysis of tobacco industry contributions and voting patterns in Congress. For the cost of a 32-cent stamp, NCI could have requested a copy of this study and saved taxpayers \$599 999.68."102
- August 9, 1995: Representative John Porter (R, IL) says, "[Glantz's] study . . . focuses on the political process and those who lobby legislatures on tobacco issues. . . . This is not clinical or behavioral research and should not have been funded by NCI."103
- Pete Sepp of the National Taxpayers Union says, "When most people think of the National Cancer Institute, they think of people in lab coats looking for a cure for lung cancer. . . . [A] study that's so politically charged should not be the purview of a disease research agency."65
- December 5, 1995: Philip Morris and RJ Reynolds work with Representative Porter (who is on the House Appropriations committee) to block Glantz's NCI funding. An internal Philip Morris memo says, "[John Fish of RJ Reynolds] . . . advises that . . . [Representative] Porter's . . . [office has] assured him that the labor-HHS Appropriations continuing resolution will include language to prohibit funding for Glantz."104
- April 23, 1997: Thomas Humber, president of the National Smokers Alliance, writes to University of California president Richard Atkinson attacking Glantz's integrity and competence regarding his 1994 published study on the economic effects of smoking restrictions. 43

Note. NCI = National Cancer Institute. HHS = US Department of Health and Human Services.

heat in the field."133) A headline in the American Smokers Alliance's spring 1995 newsletter⁵⁶ boasted that "ASA Letters and Ads [from the 130/10 Club] Ignite Federal Action on NCI" and included a reprint of the *Times* article.

On April 12, 1995, the day after the Washington Times article ran, Senator Wendell Ford (R, KY), a strong tobacco industry supporter, 134 wrote a harsh letter to Secretary of Health and Human Services Donna Shalala, whose department includes the NCI, protesting Glantz's grant. Ford called the grant "an extravagant handout" and asked Shalala to halt the spending of the

remainder of the grant that had "not already been wasted."135 Shalala responded by defending Glantz's NCI grant, 136 stating that it was well within NCI's mandate.

INDUSTRY ATTACKS SPREAD TO MAGAZINES, BOOKS, TELEVISION

In late 1994, an employee of the Missouri Department of Agriculture and researcher for the American Smokers Alliance, whom Philip Morris considered to be a "grower ally," ³⁶ sent a Freedom of Information Act request to the NCI for information about Glantz's grant application. (The American Smokers Alliance encouraged members to act as researchers, specifically instructing them to use the Freedom of Information Act.³⁸) The employee obtained Glantz's NCI grant information and forwarded it to Walt Klein & Associates, who in turn sent it to RJ Reynolds' external relations office. 137 In March 1995, RJ Reynolds enlisted Walt Klein & Associates to foster and augment the appearance of a public clamor to remove Glantz's funding. The public relations firm drafted several op-ed pieces criticizing Glantz's work as "bogus" and "deeply

Washington Times, Tuesday, March 14, 1995

STATE LEGISLATORS TO BE INVESTIGATED BY THE NATIONAL CANCER INSTITUTE

\$600,000 OF FEDERAL FUNDS **GRANTED TO STANTON GLANTZ** VIA UNIV. OF CAL., SAN FRANCISCO. TO 'EXPOSE' THE NAMES OF CONTRIBUTORS TO STATE LEGISLATORS, STARTING IN CAL., MASS., N.J., PA., WASH., AND CO.

This information is available, free, to the public in most states.

FOR VERIFICATION: Freedom of Information Coordinator National Cancer Institute Bethesda, MD 20892

Apparently the dismal record of the National Cancer Institute to control cancer is forcing it to desperate measures. We ask the Congress and the president to clean house at the N.C.I. and use the money for research, patient care, and the budget deficit, where Federal funds belong.

Ad paid for by the 130/10 Club, a group of citizens who chip in \$10 a month to expose government waste and express our opinions to the government.

130/10 Club. P.O. Box 60, Holland, KY 42153

Cut off this ad. Add a short personal note to the bottom half of the other side, fold and tape, and mail to your congressperson. Don't forget to put a stamp on it!

FIGURE 1-Advertisement in the Washington Times, March 14, 1995. 101

flawed" and demanding that the NCI terminate his funding. 138–140 We were unable to determine whether any of these op-ed pieces were published.

On August 28, 1995, an article titled "Policing P[olitical] C[orrectness]: How the government is stacking the deck in the debate over smoking"141 was published in the National Review, a magazine of conservative opinion. 142 The article attacked Glantz and his NCI funding, portraying him as a prohibitionist and calling his NCI funding a "gross abuse of bureaucratic authority." A short biosketch of the author, Thomas DiLorenzo, PhD, described him only as "a professor of economics at Loyola College in Maryland."141 Prior to publishing "Policing PC," DiLorenzo had worked on a number of tobacco industry projects, including a Philip Morris and RI Revnolds-funded project at the Independent Institute (a tobacco industry-funded think tank¹⁴³), and contributed to publications by the

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Capital Research Center (another think tank, described as a "long-time friend of PM" in a 1998 internal Philip Morris e-mail¹⁴⁴).

The same month that the "Policing PC" article was published, James Bennett of George Mason University billed RJ Reynolds \$150000 for work he and DiLorenzo were doing on a book titled CancerScam: The Diversion of Federal Cancer Funds to Politics.²² This book, published in 1997, attacked government-funded health agencies and health charities, charging that they were deviating from their missions and using donated funds irresponsibly by engaging in excessive political and lobbying activity. 145 The book specifically attacked Glantz, claiming he was "getting rich" by using tax funds for lobbying.145 CancerScam conformed to Philip Morris' action plan by "elevating the issue of public funding (primarily federal) to conduct antitobacco ... research" 100 and accusing government agencies and health charities of diverting funding away from "the common goal of finding a cure for cancer." DiLorenzo also made a Freedom of Information Act request for information about Glantz's NCI grant, and he forwarded the information received from NCI to Philip Morris' law firm Arnold and Porter in 1995. The firm forwarded the information to the director of Philip Morris' Washington relations $office.^{146}\\$

On July 15, 1995, a few weeks before his National Review article was published, DiLorenzo appeared on the Philip Morris-supported 147-149 PBS television program *Technopolitics*, hosted by James Glassman. (Philip Morris had liaisons assigned to Technopolitics and National Review as part of its "Managing the Message-Conservative Media Cultivation" effort. 150) The single topic of the half-hour Technopolitics show was Glantz's NCI grant. On the show, DiLorenzo described Glantz's NCI grant as the "government paying citizens to spy on other citizens" and called it "atrocious." He concluded, "Every dollar that is spent on these political gadflies is not spent on basic cancer research,"23 yet another statement that reflected Philip Morris' plan to claim that Glantz's NCI research "does nothing to advance the common goal of finding cures for cancer."100 From 1993 to 1995 Philip Morris donated $\$630000^{147-149}$ to South Carolina Educational Television to support *Technopolitics*. The 1994 contribution was one of Philip Morris' largest "charitable contributions" that year. 151

LEGISLATIVE APPROPRIATIONS

While laying the groundwork to create the appearance of a grassroots demand to cut Glantz's NCI funding, the tobacco industry was also working to influence the federal budget appropriations mechanism to terminate Glantz's funding. 152 In July 1995, language appeared in a House Appropriations Committee report that set the scene for eliminating Glantz's project in the upcoming NCI appropriations bill. The language focused on a relatively small part of Glantz's overall project (albeit the part to which legislators were likely to be particularly sensitive). It said:

The Committee was disturbed to learn that NCI had funded a research grant studying tobacco industry campaign contributions to State legislators and voting records by those individuals on tobacco control initiatives. While the Committee is not rendering judgment on the merits of the grant proposal, it feels strongly that such research projects do not properly fall within the boundaries of the NCI portfolio.153

The only grant the language could have possibly referred to was Glantz's NCI grant.

When the appropriations bill containing NCI's funding for the next fiscal year came to a vote in the House of Representatives on August 4, 1995, it included language (inserted into a subcommittee report) that would specifically strip Glantz of his NCI funding. The legislative affairs manager at the Tobacco Institute described the event in a memo she sent to RJ Reynolds' public affairs divisions the same day:

Early this morning the House passed HR 2127, the Fiscal Year 1996 Appropriations [bill] for the Departments of Labor, Health and Human Services, and Education [including NCI].... Several items of interest to the industry are included in the bill. Funding for the Office of the Surgeon General would be eliminated. . . . In the House Appropriations Committee Report is language withholding further funding for the National Cancer Institute's grant to Stanton Glantz for an investigation of the tobacco voting records of, and campaign contributions to state legislators. 154

Glantz learned of the attack on his NCI funding from a member of his research staff, whose sister was interning for a member of the House Appropriations subcommittee. On August 2, 1995, Glantz sent a letter to colleagues alerting them about the ongoing political effort to halt his project. He pointed out that, if allowed to continue, this kind of legislative action would have the potential to cut off all future research that the tobacco industry

considered threatening. 155 Word spread about the highly specific amendment to kill Glantz's project, and news media began reporting on it, including a Chicago Sun-Times article on August 9, 1995, which read, "In a rare intervention, Rep. John Porter (R-III.) directed the National Cancer Institute to halt funding of research on how the tobacco industry helps shape the law." ¹⁰³

Three days after the Sun-Times article appeared, Philip Morris' Washington relations office was planning its next step: pushing the attack on Glantz's NCI funding through the Senate. An internal Philip Morris memo reads, "What are [our] prospects for ... eliminating funding for Glantz's NCI political study, etc.? Who is the industry's horse in the Senate, if anyone, to push what we got in the House [emphasis added]?"156 Another note sent to high-level officials in Philip Morris-including the senior vice president and associate general counsel (Charles Wall); Philip Morris' Worldwide Regulatory Affairs office; the senior vice president of executive affairs (Steve Parrish); secretary and general counsel and members of Philip Morris' board of directors, vice president and associate general counsel; vice president of Philip Morris' State Government Affairs office; and staff in Philip Morris' Washington Relations office-indicates that the industry worked cooperatively to have Glantz's funding removed: "Attached is a status report on industry efforts concerning the NCI grant to Glantz.... We will keep you posted as this develops [emphasis addedl."157

As the industry's attention shifted to the Senate, a memo titled "National Cancer Institute Grant to Stanton Glantz" was sent within Philip Morris' Washington relations office in December 1995. The memo reads, in part: "I sent copies of [Glantz's NCI grant application] to Brad Edwards [legislative assistant to Senator Jesse Helms (R, NC)] and Matt Rapp [of the public relations firm Burson Marstellar]. I plan to discuss with them a strategy to deal with a motion to strike the Porter language in the Senate."104 A 1995 outline describing Tobacco Institute committees and projects shows that the Institute formed a multicompany "Appropriations Working Group" to find ways to manipulate the legislative appropriations process to stop a wide range of federal tobacco control-related activities, including Glantz's grant. 158 Core members of the Group were RJ Reynolds' vice

president of federal government affairs; Philip Morris Management Corporation's director of federal tobacco issues; the vice president of federal government relations in the public affairs department of US Tobacco Company; a partner and member of an industry legislative team at tobacco industry law firm Dickstein, Shapiro, Morin and Oshinsky; and lobbying firm Hecht, Spencer & Oglesby.

In December 1995, Philip Morris law firm Arnold and Porter sent a "privileged and confidential" letter to Philip Morris reporting that it was "preparing a memorandum identifying options for challenging the award of the ... Glantz grant." 159 The firm also sent the letter to a Philip Morris corporate attorney in January 1996.¹⁶⁰ The options Arnold and Porter identified are not public because the memorandum containing the options remains privileged, but from the activities that ensued during 1995-1996 legislative appropriations process, it appears that the companies pursued Philip Morris' "Action Plan," especially the strategy to "reach out to our allies on Capitol Hill, particularly those serving on authorizing and appropriations committees."100

The potential ramifications of the legislators' actions-i.e., the inhibition of publicly funded research opposed by the tobacco industrytroubled many in the public health community and in the broader academic community. The American Cancer Society, the American Heart Association, the American Lung Association, the San Francisco Medical Society, tobaccoprevention coalitions, doctors, attorneys, medical clinic employees, researchers, public health advocates, and prominent academics across the country generated letters and petitions to House and Senate members supporting Glantz and expressing outrage at the federal legislature's interference in NCI's peer-review process. Under the guidance of the Public Media Center, a nonprofit public interest advertising firm in San Francisco, a group of 29 prominent physicians and academics (including former US Surgeon General C. Everett Koop) signed an opinion page advertisement¹⁶¹ that ran in the October 16, 1995, New York Times defending Glantz and decrying Representative Porter's actions on behalf of the tobacco industry (Figure 2). The president of the American Cancer Society, John Seffrin, personally intervened in the matter of Glantz's NCI grant by mobilizing pressure on

Porter in his home district to abandon the effort to target the grant.

On April 24, 1996, the House Appropriations subcommittee held formal hearings on the issue, and Richard Klausner, the new NCI director, told the subcommittee that NCI had ceased funding the portion of Glantz's grant involving campaign contributions. ¹⁶² (The grant was not cut; these funds were shifted to the grant's other aims.) This action appeared to satisfy the subcommittee. The American Cancer Society made a \$74 000 grant to Glantz to fund the aim dropped from the NCI grant, and the work continued.

Industry attempts to end Glantz's funding did not stop. An August 7, 1996, e-mail from Philip Morris' director of federal tobacco issues to Charles Wall, the company's vice president and associate general counsel, reveals that the industry continued pushing to stop NCI funds from going to Glantz, using the same "report language" strategy:

[An RJ Reynolds lobbyist] and I contacted Congressman Henry Bonilla's staffer today about the Glantz grant. She was surprised, especially since she was in the meeting between the head of NCI and Bonilla when it was agreed that NCI would not be funding these type of projects. . . . Bonilla's staffer will communicate with Labor/HHS appropriations subcommittee Chairman John Porter and his staff to express their concern and discuss a recommended plan of attack. . . . Have Porter's subcommittee staff investigate whether it would be more prudent to push for report language which would restrict NCI's ability to use funds for these types of grants in the Senate.... Bottom line: determine if report language at Senate or conference level is a viable option. I will meet with Congressman . . . Hoyer's [a friendly Democrat on the subcommitteel staff to solicit his support for a report language strategy that Bonilla and Porter have signed off on.16

CALIFORNIANS FOR SCIENTIFIC INTEGRITY

In 1994, Glantz and Smith published in the *American Journal of Public Health (AJPH)* the first comprehensive study of the economic effects of banning smoking in restaurants. ¹⁶⁴ The study showed that there was no significant change in restaurant revenues associated with smoke-free environment ordinances. This result directly contradicted the tobacco industry's claim that these laws hurt the hospitality business, an argument they used to frighten members of the hospitality industry into fighting local smoke-free environment ordinances. ^{165–167}



It is unprecedented for Congress to withhold funds from cancer control research approved and supported by the National Cancer Institute (NCI).

But that's exactly what House Appropriations Committee chair John Porter (R-ILL.) is trying to do, under pressure from the tobacco industry.

The real target is Stanton A. Glantz, PhD, Professor of Medicine at the University of California, San Francisco.

Dr. Glantz has an NCI grant to analyze the U.S. tobacco industry's on-going efforts to spread cancer by derailing public policies aimed at preventing tobacco deaths.

These include attacking all evidence of tobacco's lethality and addictiveness, despite the fact that tobacco industry researchers have had the same results for 30 years.

So important do his peers consider Dr. Glantz's work that it was ranked in the top 10% of all grants submitted to NCI. Indeed, the *Journal of the American Medical Association* devoted most of its July 19, 1995 issue to publication of Dr. Glantz's research. Yet Porter criticizes his work as not being "medical."

The stakes are high. Prevention of some 420,000 annual U.S. tobacco deaths has long been an NCI priority.

But the House Appropriations Committee's action has just raised the stakes even higher—by letting tobacco companies pollute and limit scientific enquiry.

Should we let America's scientific agenda be set and censored by powerful special interests? How can sound public policy be based on incomplete—or purposely distorted—research?

As Dr. Glantz and his colleagues have proven, the tobacco industry has never hesitated to subvert medical science or manipulate the political process for the sake of easy profit.

The difference? Now the new House majority, intoxicated by its power over America's health research budget, is eager to aid and abet the industry.

We, the undersigned, strongly protest the House Appropriations Committee's dangerous action.

We urgently appeal to Congress and the President to keep American science free from political partisanship and special interests.

The undersigned strongly condemn the House Appropriations Committee's action as a threat to scientific enquiry. Virginia L. Ernster, PhD Prof. of Epidemiology Univ. of Calif., SF Nicholas L. Petrakis, MD Prof. of Preventive Medicine & Epidemiology, Univ. of Calif., SF John Slade, MD Assoc. Prof., Dept. of Medicine Univ. of Medicine & Dentistry of NJ, Robert Wood Johnson Steve Lehman, PhD Chairman, UCSF/UCB Bioengineering Graduate Group Lester Breslow, MD, MPH Prof. & Dean Emeritus UCLA School of Public Health Helene G. Brown Assoc. Dir., Community Rese Larry K. Fuller Sheldon Margen, MD Stanley A. Rubin, MD Medical School Chairman, Board of Directors American Cancer Society Prof. Emeritus School of Public Health Univ. of Calif., Berkeley Jonsson Comprehensive Cancer Center, UCLA Prof. of Medicine Univ. of Calif., Irvine David E. Smith, MD President, American S Roy Goldfarb, PhD Prof. of Physiology & Mi of Addiction Medicin Jonathan Samet, MD Prof. & Chair, Dept. of Patricia A. Buffler, PhD, MPH Joseph B. Martin, MD, PhD Prof. of Neurology Univ. of Calif., SF Francis C. Szoka, Jr., PhD Prof. of Pharmacy & Pharmaceutical Chemistry Dean, School of Public Health Univ. of Calif., Berkeley Epidemiology, School of Public Health, Johns Hopkins Univ. Rush - Presbyterian - St. Luke's Medical Center David M. Burns, MD Prof. of Medicine Univ. of Calif., San Diego Charlene Harrington, PhD Prof. & Chair, Dept. of Social & Behavioral Sciences Univ. of Calif.. SF Barry M. Massie, MD Prof. of Medicine Nelson B. Schiller, MD Prof. of Medicine, Kenneth E. Warner, PhD Richard D. Remington Anesthesia & Radiology Univ. of Calif., SF Univ. of Calif., SF Melvin D. Cheitlin, MD Prof. of Medicine, Chief of Cardiology, SF General Hospital Richard D. Remington Collegiate Professor of Public Health, Univ. of Michigan Univ. of Calif., SF LaMar McGinnis, MD Joel S. Karliner, MD **Gregory G. Schwartz, MD, PhD,** Assoc. Prof. of Medicine Univ. of Calif., SF President American Cancer Society K. Michael Cummings, PhD, MPH, Sr. Research Scientist, Dept. of Cancer Elizabeth M. Whelan, ScD Univ. of Calif., SF Michael Pertschuk Co-Dir., Advocacy Institute Former Chair, Federal Trade Commission C. Everett Koop, MD, ScD Former U.S. Surgeon Genera (1981-1989) on Science and Health John R. Seffrin, PhD Exec. V.P. & Chief Staff Officer (This is a partial listing. Titles and For more information, please write: Public Media Center, 466 Green Street, Suite 300-T, San Francisco, CA 94133

FIGURE 2—Opinion-page advertisement in the New York Times, October 16, 1995.¹⁶¹

Philip Morris viewed the 1994 restaurant study as a threat. A 1994 Philip Morris internal report discussing how to spread Philip Morris' "Accommodation Program" (a program to stave off smoking restrictions¹⁶⁵) lists a number of difficulties Philip Morris faced at the time,

among them the fact that "Stanton Glantz [is] using funding to distribute research stating that there is no negative impact of smoking bans on restaurant sales.... Research widely distributed and viewed as credible." In February 1994, a firm called Ferret Research of Auburn.

California, produced a report declaring that Glantz and Smith's 1994 study was "empirically false ... misleading and potentially harmful to businesses."66 The Ferret report was not published in a journal, but it was promoted through a press release that also objected to the fact that the restaurant study had been partly funded by the California Tobacco Related Diseases Research Program.⁶⁷ (This grant laid the foundation for Glantz's later grant from NCI.)

After the Ferret report, attacks on Glantz' work quieted until 1997, when Glantz and Smith updated their 1994 study to include communities with laws requiring smoke-free bars. 169,170 They reported that, similar to smokefree restaurant ordinances, smoke-free bar ordinances had no detectable effect on bar revenues. The findings were published in the July 1997 issue of AJPH and received wide press coverage. 171 That same year, Glantz and Smith's 1994 study suddenly began drawing harsh criticism from the National Smokers Alliance, a smokers'rights group created by the public relations firm Burson Marsteller for Philip Morris. 172,173 In March 1997, the National Smokers Alliance paid Chicago economic consultant Michael Evans \$10000²⁴ to critique Glantz and Smith's 1994 study.²⁵ Evans said that Glantz and Smith's conclusions were "unwarranted" and "based on faulty assumptions in methodology."25 Rather than submitting his critique to AJPH, Evans's critique was presented at a National Smokers Alliance press conference on April 24, 1997.

Soon after the press conference, Thomas Humber, president of the National Smokers Alliance and a former senior vice president of Burson Marsteller, wrote a letter to the president of the University of California citing Evans's critique and complaining that Glantz and Smith's 1994 restaurant study "has been used as a major lobbying tool throughout the United States to convince government officials that they can enact restaurant smoking bans with no adverse economic consequences.... [Q]uestions have been raised by Dr. Evans' review that are serious enough to warrant seeking the return of taxpayer dollars [from California's Tobacco Related Disease Research Program] from the authors of the study."⁴³ At the same time, Humber sent a letter to AJPH editor Mervyn Susser complaining that Glantz and Smith had "misrepresented the premises for the study" and used "flawed methodology" to

reach their conclusions. Humber asked AIPH to "reopen the Glantz/Smith study for editorial review."44 Susser responded by sending Evans' critique out for peer review. After considering the reviewers' responses, Susser answered Humber with an editorial in the October 1997 issue of AJPH:

Evans makes a show of reexamining the available data in much detail. Instead of a compelling critique, however, we find a mélange of scientifically inadmissible manipulations of data to obtain a desired result. These are conflated with a flurry of suppositions as to what could be. Suppositions are then translated by mere assertion into factual "serious" flaws. Even if the Evans critique can pass in the field of economics for legitimate science-something I do not credit-it cannot pass in this Journal. Certainly, no economist has submitted so tendentious and meretricious an argument during my tenure. 174

Glantz and Smith published minor corrections to their article (which did not affect their conclusions) in an erratum in AIPH.170

Despite Susser's editorial and the erratum, Humber started laying groundwork for a lawsuit against Glantz, alleging misuse of tax revenues. Humber sent a letter to California members of the National Smokers Alliance, asking them to join the newly created Californians for Scientific Integrity. 45 The letter stated that Glantz had conducted a "particularly offensive" research project "paid for with your tax dollars" that "totally misrepresents the economic losses suffered by restaurants when they are forced by governments to restrict smoking."45 Humber invited readers to "force Dr. Glantz to return all the misspent money to the fund" and said law firm Zumbrun and Findley would handle "all the appropriate actions." Zumbrun and Findley principal Ronald Zumbrun was the founder of the Sacramento-based conservative Pacific Legal Foundation, which Philip Morris External Affairs listed as a "strategic key ally" 175 that received money from both Philip Morris and RJ Reynolds. 176,177 Participants who joined the effort "won't have to write letters, make phone calls, or attend meetings" or incur any financial cost or legal liability to "focus attention on the abuses of anti-smoking zealots who are living off your money," the letter said. 45

Concurrently, the National Smokers Alliance petitioned the US Occupational Safety and Health Administration (OSHA) to cancel its consulting contract with Glantz, who was assisting with efforts to restrict smoking in the

workplace. 178 The Alliance cited Evans's critique and called for an investigation into work Glantz had done for OSHA.179 OSHA did not cancel its contract with Glantz or investigate his work.

On July 1, 1997, Californians for Scientific Integrity sued the University of California, the California Department of Health Services, and the California Department of Education in California Superior Court, charging Glantz with engaging in scientific misconduct at taxpayer expense by intentionally misrepresenting the data in his 1994 restaurant study. 179 The University's response brief argued, in part:

The true agenda of this action was patently obvious-to muzzle scientists whose research publications and speech on subjects relating to tobacco, tobacco control and the politics of tobacco have been a thorn in the side of the industry for decades. The danger of this type of lawsuit cannot be overestimated. It is an obvious attempt to intimidate and silence a bothersome critic of a wealthy and powerful industry. The University of California should be a place where such controversial figures, whatever their views, may research, publish and speak, free from intimidation and harassment of the type this lawsuit represents.¹⁸⁰

On November 20, 1997, the Court dismissed the suit on the grounds that there was no legal basis for a claim against the University. 181 Californians for Scientific Integrity unsuccessfully appealed to the Court of Appeals and the California Supreme Court. While the University prevailed in the lawsuit and on subsequent appeals, University personnel had to invest substantial time and effort fending off aggressive discovery, preparing for and giving depositions, and preparing court filings.

PHILIP MORRIS' "ROAD MAP" FOR THE TOBACCO INDUSTRY

Philip Morris' draft document titled "Action Plan: Scientists" 100 was a road map to guide efforts to shut down public policy-oriented research. Actions subsequently taken by the tobacco industry and its agents and affiliates followed the plan: distribution of an inflammatory "report" asserting Glantz's supposed misuse of taxpayer funds; use of smokers'-rights and antitax groups to create the appearance of a public clamor against the research; a third party taking out an attack ad in an influential newspaper; tobacco industry third-party allies criticizing the research;

news articles and a television show attacking Glantz and his research; letters critical of Glantz being sent to legislators and government officials; and manipulation of the legislative appropriations system to stop his funding.

A December 2003 article in Washington Monthly 182 credited Technopolitics host Jim Glassman with developing a new public relations technique called "journo-lobbying," in which slightly different versions of an industry's preferred message are repeatedly broadcast at legislators from a range of influential sources and through a variety of media to dominate the intellectual environment in which officials make policy decisions. A 1998 Philip Morris memo titled "The Echo Chamber Approach to Advocacy" describes Philip Morris' Washington relations office's use of a similar technique¹⁸³:

Members of Congress are impacted by multiple "influentials." . . . A rough hierarchy has been established as follows, from most influential to least influential: Constituents (unaided), Major Fundraisers, Local Media, Colleagues, National Media, Advertising, Lobbyists. The more a particular view or piece of information "echoes" or resonates through this group, the greater the impact. Grassroots efforts are so effective . . because they cause many constituents to repeat the same message to the target Member ... You will note that the echo chamber effect can work in two different ways: First, the same message can reverberate among multiple sources toward the target Members. . . . Second, similar but complementary messages can be repeated by a single source. . . . Either the repetition or "piling on" approach provide the same result: enhanced credibility and influence of the essential message. 183 (Emphasis in original.)

Philip Morris "reached out" to Technopolitics¹⁵⁰ and provided significant money to the show. 147-149 A similar financial relationship existed between Philip Morris and the National $\textit{Review}, ^{184-187}$ which published DiLorenzo's "Policing PC." Legislators, other policymakers, and public health advocates need to be aware of the "echo chamber" technique and take all possible steps to verify the sources of what may seem at first to be a widely held opinion about an

Many of the strategies that the tobacco industry used to combat Glantz's work mimic the strategies the industry has used to attack other scientists and influence public perceptions. 11,12,188,189 For instance, the industry has repeatedly used secretly paid consultants to cast

doubt upon the scientific evidence that SHS is dangerous, as happened with the Whitecoat project, 190 the Asian ETS Consultants Project, 190,191 the Latin project, 5 and the ARISE Project¹⁰ and in Germany. 192,193 Philip Morris also worked through the National Journalism School in Washington, DC, to develop formal programs supporting the training of sympathetic journalists.⁸ Philip Morris has also used lawsuits to silence and intimidate a number of other critics, as when the company sued Thames Television to prevent distribution of Death in the West¹⁹⁴; when the company filed a \$10 billion lawsuit against ABC News over a 1994 documentary about nicotine manipulation in cigarettes¹⁹⁵; and when the company pursued litigation against people working on the American Stop Smoking Intervention Study (ASSIST), a large-scale, NCI-supported smoking intervention trial, and other tobacco-control programs for "illegal lobbying." $^{196}\,$

Unfortunately, tobacco industry documents are frequently the only source of information about how the industry addresses what it perceives as the "problem" of scientists who publish research it disagrees with, and the ability to verify information in the documents through other sources is limited. The industry's tendencies toward document destruction may also have left gaps in information. 197 Because an author of this paper was the subject of the activities described, our description is open to accusations of bias; however, the author's experience also provides crucial first-hand informa-

People who publish research that threatens the tobacco industry's interests and who advocate improved public health policies based on that research may draw intense attention and opposition from the industry. Widespread criticism of a researcher that seems to emanate from a variety of non-tobacco industry sources does not necessarily indicate a lack of tobacco industry involvement, because the industry works to hide its involvement.

The techniques described in this paper were used by the tobacco industry and easily can be used by other industries confronted with issues, including environmental health 198 and global warming.¹⁹⁹ Knowledge of systematic industry harassment of scientists working in a particular field could have a chilling effect on the work of researchers in that field, particularly those who

work for smaller institutions or who give a high priority to attracting funding from private industry.²⁰⁰ Support from researchers' employers and from credible public health organizations (in this instance, the American Cancer Society)including a willingness to support researchers in fighting litigation and withstanding attacks from political figures and media outlets-is crucial to the continued advancement of science in general and public health in particular.

About the Authors

At the time of this study, Anne Landman was with the Center for Tobacco Control Research, University of California, San Francisco. She is also with the Center for Media and Democracy, Madison, WI. Stanton A. Glantz is with the Department of Medicine, University of California, San

Reprint requests should be addressed to Stanton A. Glantz, Center for Tobacco Control Research and Education, Mail Stop 1390, University of California, San Francisco, CA 94143-1390 (e-mail: glantz@medicine.

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Contributors

A. Landman conducted the searches for tobacco industry documents and wrote and revised the article. S. A. Glantz originated the project and helped revise the article and respond to reviewer comments.

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