Letter to the Editor

RE: Secret Ties to Industry and Conflicting Interests in Cancer Research

To the Editor:

In an opinion article labeled as "review", Hardell and colleagues accuse us and others of "secret ties to the industry" [Hardell et al., 2006]. With respect to organochlorines in general and dioxin in particular, we have contributed to three peer-reviewed publications [Adami et al., 1995; Ahlborg et al., 1995; Cole et al., 2003], and in all of them support by the industry is acknowledged explicitly. Interestingly, Hardell and colleagues do not quote any of these publications. Instead, they quote a report of ours that was commissioned by Exponent (as is also clearly acknowledged) for submission to the Environmental Protection Agency and other competent bodies [Adami et al., 2000] and summary presentations to a conference based on this report.

Our conclusion, that a link between organochlorines, notably DDT, and hormone-dependent cancers in women is highly unlikely, has been subsequently supported by large investigations [Laden et al., 2001]. We also stand by our conclusion that the principal dioxin (TCDD) at low levels is not carcinogenic to human beings and that it may not be carcinogenic even at the higher levels to which humans have been exposed [Adami et al., 2000; Cole et al., 2003].

Labeling exposures as carcinogenic even if the relevant human evidence indicates otherwise does not serve society. The argument usually advanced by those who believe that they are the guardians of the common good, is that no harm and conceivably some good may stem from their actions. But this is not the case. Every time a compound is identified as a human carcinogen without adequate evidence in humans, scientific attention is shifted away from the true culprit(s) and preventive actions are misdirected. This is particularly true for

compounds such as dioxin, which are regulated anyway on account of their toxicities.

In the past, we and others have criticized Hardell for the scientific quality of his work. With respect to motivation and potential conflicts of interest, we hope that he has been as clear as we have. Ultimately, however, the central issue is whether one's scientific opinion is correct or not and this is answered by critical scrutiny of the data. By shifting attention from the substance of the issue, Hardell and colleagues are taking it out of the realm of science.

REFERENCES

Adami HO, Lipworth L, Titus-Ernstoff L, Hsieh CC, Hanberg A, Ahlborg U, Baron J, Trichopoulos D. 1995. Organochlorine compounds and estrogen-related cancers in women. Cancer Causes Control 6:551–566.

Adami HO, Cole P, Mandel J, Pastitides H, Starr TB, Trichopoulos D. 2000. Dioxin and Cancer. Report August 7. Submission to EPA (as cited by Hardell et al., 2006).

Ahlborg UG, Lipworth L, Titus-Ernstoff L, Hsieh CC, Hanberg A, Baron J, Trichopoulos D, Adami HO. 1995. Organochlorine compounds in relation to breast cancer, endometrial cancer, and endometriosis: An assessment of the biological and epidemiological evidence. Crit Rev Toxicol 25:463–531.

Cole P, Trichopoulos D, Pastides H, Starr T, Mandel JS. 2003. Dioxin and cancer: A critical review. Regul Toxicol Pharmacol 38:378–388.

Hardell L, Walker MJ, Walhjalt B, Friedman LS, Richter ED. 2006. Secret ties to industry and conflicting interests in cancer research. Am J Ind Med November 3 in press; doi://10.1002/ajim.20357.

Laden F, Hankinson SE, Wolff MS, Colditz GA, Willett WC, Speizer FE, Hunter DJ. 2001. Plasma organochlorine levels and the risk of breast cancer: An extended follow-up in the Nurses' Health Study Int J Cancer 91:568–574.

Dimitrios Trichopoulos, MD, PhD*
Professor of Cancer Prevention
and Epidemiology
Harvard School of Public Health
Boston, Massachusetts

Hans-Olov Adami, MD, PhD Professor of Cancer Epidemiology Karolinska Institutet, Stockholm, Sweden

Accepted 4 December 2006 DOI 10.1002/ajim.20427. Published online in Wiley InterScience (www.interscience.wiley.com)

^{*}Correspondence to: Dimitrios Trichopoulos, Professor of Cancer Prevention and Professor of Epidemiology, Department of Epidemiology, Harvard School of Public Health, 677 Huntington Ave., Boston, MA 02115. E-mail: dtrichop@hsph.harvard.edu