

**From:** Jay Beaumont  
**To:** Denton, Joan  
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**Subject:** Cr6, Dr. Zhang, and panel conflict

Joan -

I just wanted to explain a little about the web pages that I gave to you and George yesterday. The pages are about the principle investigator of a supposedly negative cancer study of Cr6 in drinking water that is at the center of the Cr6 & cancer controversy [Zhang and Li 1997]. The study is important because it is the only drinking water study that reports data on specific types of cancer, and the expert panel's report gives it great emphasis.

According to the paper, the investigators couldn't compare the stomach cancer rate in the contaminated area to the surrounding province because stomach cancer rates weren't available for the province. However, I checked to see whether the rates should have been available, and in fact they were available from the same source from which the investigators obtained other rates. The age-adjusted stomach cancer mortality rate in the province was 20.9 per 100,000 per year, while the rate in the contaminated villages was 27.1. The rate ratio was a statistically significant 1.8 with 95% CI=1.3 - 2.5 and p=0.000.

So why didn't the article include stomach cancer results? I did some research on Dr. Zhang. According to his biography (on web pages selling his bio-ceramic underwear book, the ethics of which are probably related to the present issue), his credits include being a consultant to the McLaren/Hart environmental consulting firm, of which Dennis Paustenbach became CEO in 1997. I understand that Dr. Paustenbach had interactions with the expert panel. According to court documents on the Internet, since 1996 the clients of McLaren/Hart have included the following companies implicated in hexavalent chromium ground or groundwater contamination:

- Elementis Chromium, Corpus Christi, TX
- PPG Industries, Inc., Pittsburgh, PA (processors of chromium ore)
- American Chrome and Chemicals, Inc.
- Chemical Land Holdings, Dallas, TX. (previously Maxus Energy and Occidental) (Cr6 waste sites in NJ & Ohio)

Thus the money paid to Dr. Zhang by McLaren/Hart probably came from U.S. companies that have a strong financial interest in the health-effects evidence for Cr6. The paper doesn't acknowledge any funding. FYI, Dr. Zhang is now deceased and I have been unable, so far, to contact his coinvestigator.

Speaking of conflicts, expert panel member Marc Schenker said at the public meeting that his consultations to PG&E on Cr6 weren't a conflict of interest because the money goes to the university and not him. Since I was recently a professor in the same medical school, I'm familiar with its Salary Plan, and I know for a fact that he would normally receive a substantial portion of that money in his salary. I've been mulling saying anything. He was the reviewer for the epidemiology portion of the panel's report.

I hope this is helpful and that I haven't stepped out of bounds. -Jay

**CC:** Alexeeff, George; Sandy, Martha; Zeise, Lauren