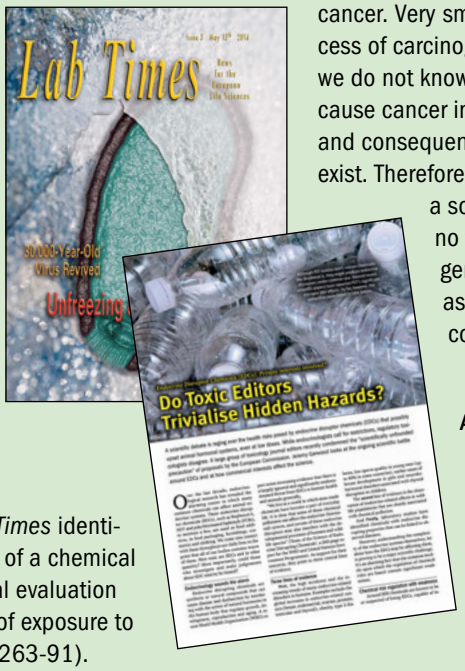
Letter to the editor

When science becomes fiction. A reply to "Do Toxic Editors Trivialize Hidden Hazards?"

"In a recently published *Lab Times* article, I was listed as a member of a band of 'toxic editors' who 'trivialize hidden hazards' because of secret 'under-the-table' payments from industry (3/2014, pp. 38-42, "Do Toxic Editors Trivialize Hidden Hazards"). According to *Lab Times*, some of these toxicology journal editors, 'had received research funds from industry associations, others had served as paid industry consultants or advisors'.

I would like to make the following facts abundantly clear:

1. I have never received money or favours from the chemical and pharmaceutical industries. Furthermore, I have never served as a paid industry consultant and have no undisclosed financial ties to industry. It is not my opinion that cooperation projects funded by either the chemical or pharmaceutical industry are unethical by default. In any case, none of my projects, past or present, have been supported by these industries. Indeed, my research to date has been funded by grants from the European Union, the German Federal Ministry of Education and Research (BMBF) and the German Research Foundation (DFG).



A recent *Lab Times* article highlighting the controversial possible risks of endocrine disrupting chemicals (EDCs) prompted a response from German toxicologist, Jan Hengstler.

2. In one of my previous publications *Lab Times* identified two consultants and one former employee of a chemical company as coauthors (Hengstler *et al*., Critical evaluation of key evidence on the human health hazards of exposure to bisphenol A. *Crit Rev Toxicol*. 2011 Apr;41(4):263-91).

This publication, however, represents a consensus paper of the Advisory Committee of the German Society of Toxicology (GT). Its background is clearly explained in the published conflict-of-interest section found on pages 265 and 286 of the article. The Advisory Committee is elected by the members of the GT and consists of representatives from academia, industry and administration. The members of the Advisory Committee present, discuss and justify the commitee's activities to other members of the society. When diverse scientific viewpoints hamper decision-making on a particular subject (as explained on page 265 of the publication), additional experts are called upon for their input. The writing of such a consensus paper is a truly democratic process. Therefore, I was bemused to see that *Lab Times* uses co-authorship of a consensus paper of an elected scientific society advisory committee to contrive a conflict-of-interest.

3. The basic problem of the whole issue – and this was not clearly mentioned in the *Lab Times* article – is that members of the European Commission (EC) drafted a framework on chemicals legislation where they proposed to regulate endocrine disruptors in a manner similar to genotoxic carcinogens. We, the 'toxic editors', believed this to be a critical mistake, as it would counteract a balanced procedure that carefully regulates all hazardous chemicals.

It is well known that genotoxic carcinogens induce damage to our DNA. It is also known that a possible consequence of such damage is the initiation of a process that may lead to cancer. Very small doses may induce the multistep process of carcinogenesis. For many genotoxic carcinogens, we do not know how many DNA adducts are required to cause cancer in humans. Critical doses may be very low and consequently, we do not know if safe levels even exist. Therefore, genotoxic carcinogens are regulated by a so-called 'a priori default assumption of no threshold', meaning that our exposure to genotoxic carcinogens should be reduced as much as technically possible, even if this costs billions of Euros.

In practice, the situation remains unsatisfactory and we are still exposed to numerous critical genotoxic carcinogens in our everyday life.

Back to the current EC draft on endocrine disruptors. A major blunder on the part of the EC was their plan to regulate endocrine disruptor chemicals with a 'no threshold assumption'. This approach is, in my opinion, simply wrong. Hormones bind specific receptors on the surface or within cells. This interaction influences downstream events, such as signal transduction networks that may be important for certain cell fate decisions, which ultimately determine the health of tissues and organisms. By definition, 'endocrine disruptors' interfere with the endocrine systems, e.g by mimicking or antagonizing a hormone, or by inhibiting or stimulating their production. However, ▸▸

it is well-established that hormones and endocrine disrupting chemicals interact with receptors by rules that can be described quantitatively. In other words, we can experimentally identify concentrations of endocrine disrupting chemicals that are low enough to no longer disturb hormone-receptor interactions. For this reason there exist threshold doses of endocrine disrupting chemicals, and, importantly, below such thresholds cells or organisms are not compromised. This means that, in contrast to genotoxic carcinogens, safe exposure levels can be identified.

4. A 'no-threshold assumption' for endocrine disruptors is not only scientifically wrong, it is also detrimental, as we would have to invest enormously into reducing exposure levels to compounds for which harmless ranges can be identified. Furthermore, we would needlessly absorb resources that could be used to protect us from chemicals that present a more immediate danger. The EU currently produces about 100,000 compounds in amounts that exceed one ton per year. For approximately 30,000 of these compounds, available toxicity data are insufficient for human risk evaluation. It is indeed important to study the toxicity of endocrine disruptors. However, they represent only a relatively small fraction of all potentially hazardous chemicals. What we need is a strategy that includes the evaluation of all compounds to which we are exposed, and not unrealistically strict legislation for only a small subset of compounds, leaving out the majority of hazardous chemicals.

5. In his exposé, the author of the *Lab Times* article writes with some reproach of the uproar and retaliation following the accidental leakage of the EC´s draft proposal (pp. 39-40).

In my opinion, the response was justified, because of the apparent underhandedness of members of the EC who planned to draft their one-sided regulations in a back room in Brussels where only lobbyists and selected guests have access. As a common scientist I would never have had a chance to see the draft at a stage where scientific discussion was still possible. Therefore, I am grateful to the whistle blower who made this public. His/her action has avoided an unsatisfactory situation with little chance to discuss and correct obvious errors.

6. I am afraid that *Lab Times* underestimates the complexity of the political games played. My firsthand experience arises from the reaction of lobby groups after publication of our review where we reported that current exposure levels of the general population to bisphenol A, a basic compound for the production of plastic, does not pose health hazards.

In Europe, more than a million tons of Bisphenol A is produced per year. Some companies in the USA have started to produce plastic based on compounds other than bisphenol A, but their products are more expensive. To sell their bisphenol-A-free products they would of course profit from a situation where products based on bisphenol A are considered hazardous. On the other hand, little is known about the toxicity of compounds replacing bisphenol A in such products – a problem that seems of surprisingly little interest to the media.

7. The *Lab Times* article contains paragraphs that have been copied and pasted from another article. The list of 'toxic editors' on page 41 was already published in the online magazine *Environmental Health News* and the text about myself is an *ad verbatim* copy and paste reproduction.

8. One of the true authors of the text copied by *Lab Times*, freelance journalist Stéphane Horel, has undisclosed connections, and possibly financial ties, to a campaign agency named Corporate Europe Observatory (CEO), an 'anti-lobby' lobbyist group in Brussels. Coincidentally, according to CEO's website, one of their aims is to 'expose corporate lobbying' and 'increase transparency'. Indeed, it is interesting to note that the idea of transparency only seems applicable to scientists and not to journalists on their own pay roll. By the way, CEO is funded by Jordan-based billionaire, Ayman Jallad, as well as by RH Southern Trust and the Adessium Foundation, reportedly based on profits made by Dutch investment bankers.

Let's summarise: We have multi-millionaire businessmen hiding behind foundations with Swiss bank accounts, together with bankers supporting lobbyists in Brussels, who pay a freelance journalist to publish a black list containing names of European scientists, which is copied and pasted onto the pages of *Lab Times*. I must leave it to the investigative journalists of *Lab Times* to put the pieces of this exciting puzzle together!

Why did *Lab Times* uncritically copy and paste a list of scientific editors and reproduce false allegations? Why not call one of the 'toxic editors' to hear their side of the story and focus on the actual ongoing scientific debate – an interesting topic indeed? Who profits from ongoing campaigns hidden behind public trusts and NGOs? So many questions! Finding the answers would require courage and careful research, and would guarantee powerful enemies. Blaming a group of scientists is so much easier.

It was clear to us – the 18 editors of scientific journals – that there would be attempts to compromise our credibility. However, everyone who reads our arguments will understand our motivation. Our article represents a careful and comprehensive analysis. Please read it! Scientifically, the regulation drafted by the EC members was not acceptable and it is the duty of an upright scientist to express criticism and inform the public."

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(Editor's note: Because of its excessive length, we had to reduce Jan Hengstler's letter to the essential points.)