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Further thoughts on limitations, uncertainties and competing interpretations regarding chemical exposures and diabetes

Although disappointed, we are not surprised that Trasande's response tries to avoid a serious discussion of legitimate scientific issues by accusing those who disagree with him of being unduly influenced by industry.

One could easily counter that the authors appear to suffer from 'white hat bias', defined^{1 2} as 'bias leading to distortion of information in the service of what may be perceived as righteous ends'.

A consistent theme in the Trasande *et al* response to our letter is that scientists dedicated to factual and provable scientific facts are 'manufacturing doubt'. Their obvious intention is to intimidate and quash legitimate scientific discussion. Irrespective of the latter, doubt in scientific enquiry is constructive, no matter how challenged one may feel by it.

As even Trasande *et al* acknowledge, our criticisms were also cited by the authors of the original Prospective Investigation of the Vasculature in Uppsala Seniors studies and remain valid in the subject derivative paper. We maintain that a discussion of the criticisms should have been added into that paper to facilitate readers forming their own assessment of the results, conclusions and health implications.

Contrary to the assertion by Trasande *et al*, we have not dismissed the existing epidemiological literature on this topic, but merely pointed out that there are other groups who have reviewed and assessed that same literature and found it wanting in various respects. Those reviewers also found fault with the in vivo and in vitro

data on glucose tolerance and consequently recommended additional studies. Trasande *et al* should have acknowledged these viewpoints.

We are encouraged that Trasande *et al* concur with our view that more robust longitudinal studies are needed, although true science demands maintaining an open mind about the outcomes and any potential influence on future cost estimates.

The remainder of the response from Trasande *et al* is a commercial for other dubious cost estimates generated by Trasande and collaborators. We did not comment on those cost estimates because they were beyond the scope of the subject paper which focused on obesity and diabetes. However, others^{3–5} have questioned the assumptions made and results obtained therein, so we would caution *caveat emptor*.

Accordingly, we are concerned at the overt display of incongruence by Trasande *et al*, that is, publishing questionable science while claiming their science to be the foundation for questioning current and well-proven approaches for human health protection.

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