



## Press Release No. 50/2017

Press Office  
Universitätsstraße 10  
D-78464 Konstanz  
+49 7531 88-3603  
Fax +49 7531 88-3766

kum@uni-konstanz.de  
www.uni-konstanz.de

31 May 2017

### For the good of science

**Human health impact and cost estimates attributed to endocrine disrupting chemicals are unfounded, say toxicologist Daniel Dietrich and epidemiologist Gregory G. Bond in the scientific journal "Archives of Toxicology".**

**A series of economic papers released in 2015 and 2016 estimated the burden of diseases attributable to exposure to endocrine disrupting chemicals (EDCs), also known as environmental estrogens, and associated costs in the US and EU. Many experts suspected right away that these calculations were flawed and thus immaterial to public health decision-making. A thorough critique of the underlying methodology used to generate the cost estimates was published in the influential peer-reviewed journal "Archives of Toxicology" this month.**

The critical review comes at a time in which regulatory bodies on both sides of the Atlantic are moving forward with two relatively distinct approaches to identifying and regulating EDCs. The critique of the economic analyses, co-authored by Michigan-based epidemiologist Gregory G. Bond, Ph.D., Michigan (U.S.), and toxicologist Professor Daniel R. Dietrich, Ph.D., University of Konstanz, affirms widely held suspicions by members of the European Commission, U.S. and EU-based academics and science journalists who had publicly expressed concern over the validity of the cost estimates before.

Bond and Dietrich uncovered substantial flaws in the underlying methodology of the economic papers, including a failure to use state-of-the-art systematic review methodology, a lack of transparency in reporting how the literature was searched and which studies were selected for review, as well as a failure to achieve a balance of perspectives through a selection of certain members for the review panel. In addition to this, the authors criticize a lack of serious discussion of the strengths and weaknesses of the individual studies relied upon.

It is particularly those flaws in the cost estimates and the corresponding media coverage that, according to Bond and Dietrich, highlight a disturbing trend in research. The authors write about research designed to influence health or environmental policy. They are alarmed about the loosening of standards in scientific reporting they have witnessed over the course of their decades-long careers in both corporate and academic settings.

Greg Bond: "We saw a disturbing disconnect between what the media was reporting about the cost estimates, and what scientific experts were saying about their potential flaws and limitations. Given the perceived relevance of the estimates to the ongoing debate in both the U.S. and EU on how best to screen, identify and regulate EDCs, we felt a more thorough scrutiny of the analysis and underlying assumptions was in order."

Dietrich says: "Frankly, we were surprised that the astronomical cost estimates contained in these reports didn't give more people pause. In the past, media and scientific journals might have questioned incomprehensibly inflated data and refused to report it. Today, the new norm has become, quite alarmingly, to support it or, worse, to accept manuscripts that report unproven findings of presumed effects one would like to see. The sensational response that ensues might be a win for the authors and news outlets, but it is hardly a victory for public health or credible science as a whole.

**Original publication:**

Bond, G.G. & Dietrich, D.R. Human cost burden of exposure to endocrine disrupting chemicals. A critical review. Arch Toxicol (2017)

doi:10.1007/s00204-017-1985-y

<http://link.springer.com/article/10.1007/s00204-017-1985-y>

**Note to editors:**

You can download a photo here:

<http://bit.ly/2qylp3H>

Caption: Professor Daniel Dietrich

**Contact**

University of Konstanz

Communications and Marketing

Phone: + 49 7531 88-3603

E-Mail: [kum@uni-konstanz.de](mailto:kum@uni-konstanz.de)

- [uni.kn](http://uni.kn)