

Prof. Klaus-Dieter Jany  
Chair of the CEF Panel  
European Food Safety Authority  
Largo N. Palli 5/A  
43121 Parma, Italy

23<sup>rd</sup> June 2010

Dear Prof. Jany,

We are writing to welcome the announcement on the European Food Safety Authority (EFSA) website that the CEF panel will be considering 'hundreds of studies in its review and analysis of the most recent scientific literature' in its review of the TDI of bisphenol-A in food contact products.

Over the last decade and a half, a substantive body amounting to several hundred peer reviewed scientific papers, have been published that have highlighted potential adverse health effects associated with BPA exposures, at internal doses relevant to levels of biologically active BPA found in humans.

As a March 2010 Review (Vandenberg et al) of 80 bio-monitoring studies of BPA in Environmental Health Perspectives makes clear; *'The two toxicokinetic studies performed to date, which suggest that human exposure is negligible, have significant flaws and are therefore not reliable for risk assessment purposes.'*

However, in its prior risk assessments of BPA, EFSA only relied on a small number of studies rather than the much larger number that the United States Food and Drug Administration recently recognised as valid and of high utility in its risk assessment of BPA, and which led the FDA to express concern about the health hazards posed by BPA.

Only a tiny minority of studies have articulated that BPA exposure is completely safe, and many of these research papers have been criticised in academic commentaries and responses as having serious flaws, but it is these few flawed studies that EFSA previously relied on to declare BPA safe.

For example, a letter co-authored by 24 scientists published in the February 2010 edition of Toxicological Sciences states; *'Publishing studies that conclude no harm in response to low doses of endocrine disrupting chemicals, when the studies did not include a positive control (Tyl et al., 2002), included inappropriate doses of positive controls (Ryan et al., 2009; Tyl et al., 2008), or included positive controls that showed no effect (Cagen et al., 1999), is inappropriate in peer-reviewed journals (Myers et al., 2009a,b; vom Saal and Welshons, 2006). Such studies violate basic principles of study design.'*

Many scientific studies are now calling into question the safety of BPA. For example, a recent study has highlighted that BPA may contribute to metabolic disorders relevant to glucose homeostasis, and suggests that BPA may be a risk factor for diabetes (Alonso-Magdalena et al.,

2010). Moreover, experiments at Yale university report that BPA may induce altered developmental programming (Bromer et al.,2010), and Doherty et al (2010) of Yale university have published a study which raises the concern about epigenetic effects of BPA on the regulation of the mammary gland, with potential implications for breast cancer risk. Endometriosis is also a concern as work by Signorile et al (2010) highlights that pre-natal exposure of mice to bisphenol-A causes an endometriosis-like response in female offspring.

It is therefore our opinion that any objective and comprehensive review of the scientific literature will lead to the conclusion that action is necessary to reduce the levels of BPA exposure, particularly in groups at highest risk, namely young infants and pregnant mothers.

There are an increasing number of countries that are either already committed to this course of action, or have signalled that they will soon be undertaking similar measures.

We share the concerns of these Governments and regulators and believe that reducing BPA exposure to these groups is both scientifically sound and in the best interest of public health.

As such, we call on you as the Chair of the CEF panel and the CEF Committee Members in their ongoing review to include all relevant studies, including bio-monitoring studies, and based on that evidence we conclude that there is a strong scientific mandate for action.

Yours sincerely,

**Benson Akingbemi**, Associate Professor, Department of Anatomy, Physiology and Pharmacology, Auburn University, Auburn, USA.

**Prof. Dr. Ibrahim Chahoud**, Institute of Clinical Pharmacology and Toxicology, Dept. of Toxicology, Charité - Universitätsmedizin Berlin

**André Cicolella**, Dipl Eng chemist-toxicologist.

**Prof. Patricia Hunt**, Meyer Distinguished Professor, School of Molecular Biosciences, Washington State University

**Prof. Maricel V. Maffini**, Ph.D. Research Assistant Professor. Department of Anatomy and Cellular Biology, Tufts University School of Medicine

**Jane Muncke**, Ph.D, Environmental Toxicologist, Emhart Glass SA, Switzerland.

**John Peterson Myers**, Ph.D., Chief Scientist, Environmental Health Sciences, Charlottesville VA.

**Angel Nadal**, PhD, Professor of Physiology, Instituto de Bioingeniería and CIBERDEM, Universidad Miguel Hernández de Elche, Spain.

**Dr John Newby**, Medical Information Scientist for the Cancer Prevention Society and Former Member of the Developmental Toxicology-Pathology Research Group, Department of Human Anatomy & Cell Biology, Faculty of Medicine, University of Liverpool.

**Prof. Jörg Oehlmann**, Goethe University Frankfurt am Main, Institute for Ecology, Evolution and Diversity.

**Prof. Nicolas Olea**, MD, University of Granada, University hospital.

**Prof. Gail S. Prins**, PhD, Professor of Physiology, Department of Urology, University of Illinois at Chicago.

**Prof. Fredrick vom Saal**, Curators Professor of Biological Sciences, University of Missouri-Columbia.

**Prof. Pietro Giulio Signorile**, President of the Italian Endometriosis Foundation.

**Prof. Carlos Sonnenschein**, MD, Department of Anatomy and Cellular Biology, Tufts University, School of Medicine.

**Prof. Ana M Soto**, MD, Department of Anatomy and Cell Biology, Tufts University, School of Medicine.

**Prof. Hugh S. Taylor**, M.D., Professor of Molecular, Cellular and Developmental Biology, Department of Obstetrics, Gynecology and Reproductive Sciences, Yale University.

**Laura N. Vandenberg**, PhD, Postdoctoral Fellow, Center for Regenerative and Developmental Biology, Tufts University.

**Prof. Cheryl S. Watson**, PhD, Professor, Biochemistry & Molecular Biology Dept. University of Texas, Medical Branch, Galveston.

**Prof. Andrew Watterson**, Occupational and Environmental Health Research Group, University of Stirling.

**Prof. R. Thomas Zoeller**, Biology Department, Morrill Science Center, University of Massachusetts.

~

**Action for Breast Cancer**, Malta

**Alliance for Cancer Prevention**, UK

**Arnika**, Czech Republic

**Association for Environmental and Chronic Toxic Injury**, Italy

**Austrian section of ISDE** (International Society of Doctors for the Environment), Austria

**Breast Cancer Fund**, USA

**Breast Cancer UK**, UK

**BUND / Friends of the Earth Germany**, Germany

**Cancer Prevention and Education Society**, UK

**ChemSec –International Chemical Secretariat**, International

**CHEM Trust**, UK

**Chemical Sensitivity Network**, Germany

**Clean Air Action Group**, Hungary

**Comité pour le Développement Durable en Santé**, France

**Danish Consumer Council**, Denmark

**The Danish Ecological Council**, Denmark

**Eco-Accord Program on Chemical Safety**, Eastern Europe, Caucasus and Central Asia

**EcoAid**, Germany

**Ecologistas en Acción**, Spain

**Environmental Health Fund**, USA

**Environment Illinois**, USA

**European Environmental Bureau**, EU

**Finnish Association for Nature Conservation**, Finland

**Friends of the Earth Spain**, Spain

**Global 2000 / Friends of the Earth Austria**, Austria

**Health and Environmental Network**, Europe

**Health Care Without Harm**, International

**Indiana Toxics Action**, USA

**Instituto Sindical de Trabajo Ambiente y Salud**, Spain

**The Irish Doctors' Environmental Association**, Ireland

**Italian Endometriosis Foundation**, Italy

**Plastic Planet**, Austria

**Rachel's Friends Breast Cancer Coalition**, USA

**Réseau Environnement Santé**, France

**Society for Sustainable Living**, Czech Republic

**Unison**, UK

**VHUE e.V.**, Germany

**Women in Europe for a Common Future**, Europe

**Women's Environmental Network**, Scotland

**Women's Voices for the Earth**, USA

**WWF European Policy Office**, Europe

## References

Vandenberg LN, Chauhoid I, Heindel JJ, Padmanabhan V, Paumgartten FJ, Schoenfelder G 2010. Urinary, Circulating and Tissue Biomonitoring Studies Indicate Widespread Exposure to Bisphenol A. *Environ Health Perspect* :- doi:10.1289/ehp.0901716

<http://ehp03.niehs.nih.gov/article/info:doi%2F10.1289%2Fehp.0901716>

vom Saal FS, Akingbemi BT, Belcher SM, Crain DA, Crews D, Guidice LC, Hunt PA, LERANTH C, Myers JP, Nadal A, Olea N, Padmanabhana V, Rosenfeld CS, Schneyer A, Schoenfelder G, Sonnenschein C, Soto AM, Stahlhut RW, Swan SH, Vandenberg LN, Wang H, Watson CS, Welshons WV and Zoeller RT. 2010. Flawed Experimental Design Reveals the Need for Guidelines Requiring Appropriate Positive Controls in Endocrine Disruption Research. *Toxicological Sciences* 2010 115(2):612-613; doi:10.1093/toxsci/kfq048

<http://toxsci.oxfordjournals.org/cgi/content/full/115/2/612>

Alonso-Magdalena P, Vieira E, Soriano S, Menes L, Burks D, Quesada I, et al. 2010. Bisphenol-A Exposure during Pregnancy Disrupts Glucose Homeostasis in Mothers and Adult Male Offspring. *Environ Health Perspect* :- doi:10.1289/ehp.1001993

<http://ehp03.niehs.nih.gov/article/info%3Adoi%2F10.1289%2Fehp.1001993>

Bromer JG, Zhou Y, Taylor MB, Doherty L, Taylor HS. Bisphenol-A exposure in utero leads to epigenetic alterations in the developmental programming of uterine estrogen response. *FASEB J*. 2010 Feb 24. [Epub ahead of print] PubMed PMID: 20181937.

Doherty L, Bromer JG, Zhou Y, Aldad TS and Taylor HS. In Utero Exposure to Diethylstilbestrol (DES) or Bisphenol-A (BPA) Increases EZH2 Expression in the Mammary Gland: An Epigenetic Mechanism Linking Endocrine Disruptors to Breast Cancer. *Hormones and Cancer*. DOI: 10.1007/s12672-010-0015-9.

<http://www.springerlink.com/content/547256j0g02073v5/fulltext.html>

Signorile PG, Spugnini EP, Mita L, Mellone P, D'Avino A, Bianco M, Diano N, Caputo L, Rea F, Viceconte R, Portaccio M, Viggiano E, Citro G, Pierantoni R, Sica V, Vincenzi B, Damiano G, Mita DG, Baldi F and Baldi A. Pre-natal exposure of mice to bisphenol A elicits an endometriosis-like phenotype in female offspring. *General and Comparative Endocrinology*. doi:10.1016/j.ygcen.2010.03.030.