

## ACTION ON ENDOCRINE-DISRUPTING CHEMICALS —PUBLIC HEALTH OPPORTUNITIES FOR EUROPE

19 NOVEMBER 2018, EUROPEAN PARLIAMENT, BRUSSELS

### INTRODUCTION

On 19 November 2018, The Endocrine Society and the European Society of Endocrinology (ESE) organised a briefing hosted by Members of the European Parliament (MEPs) Eric Andrieu from the Progressive Alliance of Socialists and Democrats (S&D) and Lieve Wierinck affiliated to the Alliance of Liberals and Democrats (ALDE). The participants debated the recent European Commission (EC) Communication on Endocrine Disrupting Chemicals (EDCs) and other EU initiatives in this area. The presentations and discussions mainly evolved around some key research conclusions on EDCs and the priorities and opportunities for public health resulting from the Communication while highlighting its shortcomings. The event brought together MEPs, representatives of national governments and of the EC and a broad range of other stakeholders with an interest in this area.

Due to the strikes in France, MEP Andrieu was unfortunately unable to attend. His role as co-chair and moderator was taken over by Mrs Helen Gregson, CEO of ESE.

### WELCOME—MRS HELEN GREGSON, CEO ESE

Mrs Gregson welcomed the audience on behalf of the organising MEPs, the Endocrine Society and ESE. She stressed the need for fast and decisive action at the highest level to reduce the impact of EDCs on the European population, and the commitment of both organisations to keep supporting the European Parliament (EP) in its ambition to do so. She thanked MEP Andrieu and Wierinck for their support in highlighting the issue and hosting the event.

### PROF ANGEL NADAL—PROFESSOR OF PHYSIOLOGY IDIBE AND CIBERDEM, MIGUEL HERNÁNDEZ UNIVERSITY OF ELCHE ALICANTE, SPAIN

Prof Nadal gave his presentation on behalf of the Endocrine Society. The Endocrine Society is an organisation with over 18.000 Members across more

than 120 countries across the globe. Since 2013 the Endocrine Society has been actively involved in the EDC debate at the EU level following the start of the debate around the new criteria for the identification of EDCs.

Prof Nadal started his presentation by calling for a new EU strategy for EDCs as outlined by a recent Endocrine Society press release<sup>1</sup>. The current strategy dates from 1999 and urgently needs to be replaced following the significant scientific progress in this area. Secondly, he called for more research to determine, amongst others, the exact impact of new and current chemicals on the human body, wildlife and the general environment.

With regards to the recent EC Communication from 07 November 2018, Prof Nadal highlighted some of the positive elements of the Communication. In addition to more research in this area, he welcomed the pledge of the EC to minimise exposure to EDCs, improve testing methods and the EC's intention to work closer with the stakeholders in the field by means of a Forum.

However overall, he stated that he was disappointed by the Communication due to its lack of concrete measures that could have an immediate effect on the prevalence of EDCs in the EU and beyond. The Communication for example did not propose any measures to achieve horizontal identification criteria for EDCs. At the moment, different EU laws maintain different criteria for EDCs which means that even if a chemical is defined as an EDC under EU law, it could still make it to the EU market under another EU directive or regulation.

In conclusion, Prof Nadal called for a new ambitious EDC EU strategy that is consistent across sectors, stimulates immediate concrete measures, sets targets for the identification of EDCs and encourages substitution with safer alternatives. Secondly, more research is needed to accelerate regulatory decision making and improve test methods, without delaying concrete actions based on currently available evidence.



## SUMMARY OF THE BRIEFING

### **PROF VERA POPOVIC—PROFESSOR OF MEDICINE MEDICAL FACULTY UNIVERSITY OF BELGRADE BELGRADE, SERBIA**

Prof Popovic gave her presentation on behalf of ESE, an organisation with 4100 individual members and 51 national affiliated societies across Europe. Moreover, ESE is 1 of the 24 members of the Alliance of Biomedical Research, an umbrella organization representing the interest of medical societies in Europe.

On EDCs Prof Popovic had similar concerns to Prof Nadal. In addition to the points raised by her colleague she emphasized the importance of maintaining the “precautionary principle” which is embedded in EU law and in the context of EDCs stands for only allowing products on the EU market which are cleared of potentially causing any adverse effect(s) to the human body.

Prof Popovic stated that currently even if adverse effects on animals of certain EDCs have been proven, they are often still allowed to enter the EU market as long as there is no direct evidence that the EDC also has a negative effect on humans. The latter is difficult to prove and costs time and resources which are not always available. Meanwhile, explained Prof Popovic, the EU population is exposed to a potential harmful product.

In addition, she presented future research in the area of EDCs mainly focusing on the thyroid hormone and the brain. One of the most promising research projects that will commence soon is ATHENA which stands for ‘Assays for identification of thyroid hormone axis-disrupting chemicals elaborating novel assessment’. ATHENA is funded by an EU grant under Horizon 2020, the current EU Research Framework Programme.

Concluding her presentation, Prof Popovic gave an overview of ESE’s recent efforts to reduce the impact of EDCs. She named the ESE EDC Working Group chaired by Josef Köhrle, Charité, Berlin. This group of experts from across Europe has led most of ESE’s activities in this area. In January this year the group responded on behalf of ESE to the EU public consultation on the guidance for the identification of EDCs. More recently, with the support of MEP Pavel Poc (S&D) the group provided input to the content of the report by the EP PEST Committee and produced an ESE statement<sup>2</sup> in

response to the earlier mentioned EC Communication on EDCs from November 07. Like the Endocrine Society, ESE welcomed a number of elements of the Communication, but in general was disappointed by its lack of ambition.

### **PROF JORMA TOPPARI—PROFESSOR OF PHYSIOLOGY UNIVERSITY OF TURKU AND CHIEF PHYSICIAN FOR PEDIATRIC ENDOCRINOLOGY, TURKU UNIVERSITY HOSPITAL TURKU, FINLAND**

Prof Toppari shared extensive scientific evidence for the possible impact of EDCs on human health. He in particular referred to the rapidly global declining fertility rates of men and women. Secondly he highlighted the declining male testosterone levels. When combined these effects may have an immense impact on our future ability to reproduce according to Prof Toppari. Fertility rates in most European countries are already below the threshold to maintain the current population size. While the primarily African population still exceeds this threshold and stimulates the world population growth, this is expected to disappear over the next generations.

In addition, Prof Toppari named numerous diseases that are on the rise that are often associated with EDCs. Examples are diabetes type 1, several cancers (e.g. testicular germ cell cancer) and metabolic diseases or health conditions like obesity.

Another remarkable finding of one of the studies he shared with the audience was the considerable amount of dioxin remaining in breast milk in some of the Nordic countries where the study was conducted. Prof Toppari used this example to demonstrate the transgenerational effect of EDCs.

He continued his presentation by highlighting a number of concerning perspectives on EDCs. Prof Toppari for example mentioned that science is familiar with the effects of 1% of all the chemicals out there. With regards to the other 99%, scientists are still in the dark due to the high number of chemicals and insufficient research funding for this area. In line with earlier comments by Prof Popovic, Prof Toppari stressed not to await proof of human effects if there are clear indicators that a chemical shows adverse effects in animal experiments. Prof Toppari concluded that to do otherwise ‘is like drinking from an unlabelled bottle’.

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<sup>2</sup><https://www.eese-hormones.org/news/eese-news/eese-statement-responding-to-the-latest-endocrine-commission-communication-statement-on-endocrine-disrupting-chemicals/>



## SUMMARY OF THE BRIEFING

### DISCUSSION—MODERATION BY MEP LIEVE WIERINCK

- **Mr David Gee, the former head of the European Environment Agency**, stressed the progress on science while action is lagging behind. He encourages the EU to take a leading role again as was the case in the late 90s with the launch of the EDC Strategy. He emphasized the cocktail effect and named several case studies coming from a publication by the European Environment Agency on how to effectively prevent this effect from occurring in real life situations<sup>3</sup>. For example, by lowering overall exposure in factories in case high incidence of illnesses is observed. He concluded his statement by the need for public pressure to realise the urgently needed progress in Europe and the rest of the world in dealing with EDCs.
- In response to a question by **Ms Angeliki Lysimachou from the Pesticides Action Network Europe** on the need for regulation and the feasibility of replacing harmful chemicals, Profs Toppari and Nadal explained that there is sufficient evidence to regulate some chemicals, but for the majority their exact effect is unknown. Especially where there is a longer time between exposure and effect, it is hard to identify the negative health impact of the concerning chemical the experts explained. Research would be needed to identify this class of chemicals. Both experts think that Europe should be leading in producing safer alternatives. Benefits would outweigh the costs according to them. Currently there are almost no alternatives available.
- **Ms Sophie Perroud from the Health and Environment Alliance (HEAL)** enquired about regulating the cocktail effect<sup>4</sup> and raised the theoretical possibility of extinction of the human species, just as so many other species have already become extinct. Prof Toppari explained that the ageing population is already a real problem in Finland and other European countries which could (partially) be related to our reduced fertility and testosterone levels. Prof Nadal agreed with Ms Perroud that mixtures of chemicals need to be regulated despite the complexity of doing so. Prof Popovic stressed the importance of effectively applying the precautionary principle given the current state of knowledge and concerns for public health while further research needs to continue on the exact cause and effect for many of these chemicals.
- **Prof Barbara Demeneix, CNRS Research Unit at the National Museum of Natural History in Paris**, commented that regulation in this area will automatically lead to the necessary innovation. The same has happened in many other sectors such as energy (e.g. renewable energy). She concluded by asking the MEPs

in the room for a resolution on this topic. Mrs Wierinck replied that she is happy to discuss this idea with MEP Andrieu and within her party even though time is short with the EP elections coming up in May 2019 already.

- **Mr Hans van Scharen, assistant to MEP Bart Staes**  
Mr Scharen stressed that the EU precautionary principle has been under pressure, for example during free trade deals with the US or other countries that maintain lower health standards. Secondly, he called on both scientific societies to provide the EP and more specifically the PEST Committee with guidance on how to deal with the cocktail effect from a regulatory perspective.

### CONCLUDING REMARKS—MEP LIEVE WIERINCK

In her concluding remarks MEP Wierinck shared the disappointment of the speakers and the participants in the proposed measures by the EC in its Communication from November 07. While for example recognizing the “cocktail effect”, it does not become clear from the text what actions the EC is proposing to quantify and reduce its current impact. She therefore re-emphasized her support for a possible EP resolution on this topic even though time is short until the next EP elections.

Mrs Wierinck stressed that we cannot accept the continuous presence of EDCs in the food we eat, the air we breathe and the toys we let our children play with. She therefore applauded the current hard work of the PEST committee chaired by MEP Eric Andrieu. Mrs Wierinck expressed her confidence that their final report will encourage the member states and the EC to step up their efforts.

Finally, as a member of the ITRE Committee coordinating the standpoint of the EP on the Horizon Europe research programme, she pledged to raise the importance of research on EDCs with her colleagues and later on with the Council. According to Mrs Wierinck, a coherent research strategy on EDC prioritising the most important group of chemicals, the necessary test methods or other research areas could ensure the best use of the funding coming from Horizon Europe and other EU or national sources.

#### For further information:

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<sup>3</sup>Link to full report: [https://www.eea.europa.eu/publications/environmental\\_issue\\_report\\_2001\\_22](https://www.eea.europa.eu/publications/environmental_issue_report_2001_22)

<sup>4</sup>A mixture of chemicals that combined cause adverse effects while individually they may not do any harm