

Recognition for ESE and ESPE at the Third Annual Forum on Endocrine Disruptors

On 21 September 2021, the European Society of Endocrinology (ESE) and the European Society for Paediatric Endocrinology (ESPE) organised a scientific session at the Third Annual Forum on Endocrine Disruptors (21-22 September) which was organised by the European Commission DG Environment. The [full programme](#) as well as the recording of day [one](#) and [two](#) of the conference is available online.

The Forum's third edition was a hybrid event with most participants joining the two-day conference online. Like previous editions, the Forum again managed to attract extensive participation from across the globe: more than 1,000 people from 40 countries across five continents connected to the Forum, making it a truly global event.

Participants to the Forum were welcomed by Kestutis Sadauskas, Director Circular Economy and Green Growth, DG Environment, European Commission. He used his time to discuss the upcoming revision of the regulation for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and the Classification, Labelling and Packing (CLP) Regulation, for the latter revision there is currently an ongoing [stakeholders' consultation](#).

While discussing the programme, Mr Sadauskas emphasised how delighted he was with the presence of ESE and ESPE and the session they were organising. He said that: *"What happens early in our life, is essential for what happens later in our life."* In addition, he was pleased to see the transgenerational impact of endocrine disruptors represented in the session.

The session itself focused on three key topics with strong links to endocrine disruptors, namely mini puberty, obesity and the thyroid axis. The full programme of the session can be found on the [ESE website](#).

Professor Anna-Maria Andersson opened the session on behalf of both societies and stressed that even low doses of Endocrine Disrupting Chemicals (EDCs) can affect hormone function and contribute to many different severe illnesses, and that EDCs can exert their effects in combination. She stressed that the EU has the obligation to apply the precautionary principle to EDCs, to avoid further production, distribution and exposure to pesticides, biocides or consumer products containing suspected EDCs.

The presentation by Professor Katharina Main focused on mini-puberty in relation to decreasing human fertility as a window of opportunity to assess adverse effects of early EDC exposure on reproduction. One of her key messages was that adult fertility potential starts before birth. She mentioned numerous alarming recent scientific findings, including the increasing prevalence of congenital malformations of the male genitalia. She highlighted a study which revealed that the presence of EDCs also has a detrimental effect on human fertility. Another study she presented showed that birth weight is affected by the presence of EDCs in the mother.

Professor Robert Barouki focused on obesity. He highlighted that the development of obesity can already start in the uterus as epigenetic mechanisms are suspected to cause obesity and to pass it on across generations. Proven risk factors for obesity are maternal smoking, air pollution as well as several EDCs. However, the list of obesogens is long and expanding continuously. Obesogens can act directly on the adipose tissue, but also on the nervous system increasing food intake. They interact with other drivers of obesity such as imbalanced diets. One of the obesogens Prof Barouki highlighted was bisphenol A due to its high presence in our environment.

Dr Arash Derakhshan focused on the influence of EDCs on the thyroid axis and the possible adverse health outcomes. His main message was that based on human epidemiological evidence, thyroid disruption is part of the pathway (underlying mechanism) for the association of prenatal exposure to EDCs with adverse neurodevelopmental outcomes. However, he emphasised that currently the main 'unknown' is the amount of the contribution of the thyroid pathway as well as other pathways to the adverse effects of prenatal exposure to EDCs on neurodevelopment; hence, highlighting the need for quantification of the role of each pathway as well as the need for additional multidisciplinary studies with a focus on thyroid disruption as an underlying mechanism for developmental neurotoxicity of EDCs.

During the panel discussion that followed, the experts discussed the reduced human fertility rate which according to them is a real concern that should not be ignored because of fears of overpopulation.

The experts also discussed the morality of having continuous exposure to EDCs. They made a specific point around the health of new-borns and stated that as a society we have the obligation to ensure their rights are protected and they do not enter the world with an avoidable disadvantage.

The experts also made a strong call for more research on the range of EDCs as only several hundreds of chemicals have been carefully assessed, while the possible health effects of many hundreds of thousands of other chemicals remain unknown.

In conclusion Professor Barouki made the link between the ongoing COVID-19 pandemic and EDCs by making a link to endocrine conditions like diabetes and obesity that are partially caused by EDCs, and the high COVID-19 mortality within people diagnosed with these illnesses.

The positive feedback from the European Commission as well as the many questions and comments by the audience indicates that there continues to be an important role for ESE and ESPE to play in this area and that it remains crucial for our scientific communities to continue to communicate the scientific evidence available on EDCs to our national and European decision-makers.

View day 1 of the conference including the ESE session [here](#)

View day 2 of the conference [here](#)
