

experiment called CLARITY-BPA. This research revealed many toxic attributes, which the FDA chose to ignore by invoking a thoroughly falsified 16<sup>th</sup> Century assumption.<sup>1</sup> [See attachment 1.]

Endocrine disruption is an essential piece of the story of plastic toxicity (See Infographics 1 and 2). Many of the ingredients of plastics disrupt hormone action. They are called endocrine disrupting compounds (EDCs).

Hormones are chemical signals that govern vital physiological and genetic processes in our bodies. They guide development of the fetus to adulthood, controlling how our nervous system is wired, how our reproductive tract grows, how our organs form and mature, whether our immune system works. When those chemical signals get hacked by chemical agents, the effects can be ruinous.

- I began working on endocrine disruption in 1989, when it didn't have a name.
- In 1991 I coined the term 'endocrine disruption' at a scientific meeting in Wisconsin.
- In 1996 I co-authored a book, *Our Stolen Future*, the first book for the general public on endocrine disruption. It included passages about the effect of plastic ingredients on human health.
- That year, Congressman John Porter, Republican of Illinois and then Chairman of the House Subcommittee on Health Appropriations invited me to attend hearings on the NIH Budget. Dr. Harold Varmus, Director of the NIH, was testifying. In the middle of the hearing Porter held up *Our Stolen Future*, pointed at it, and said "Dr. Varmus, you need to read this book."

Now, almost 25 years later,

- Over a billion dollars have been invested around the world in scientific research on endocrine disruption.
- 10s of thousands of papers have been published about it in the peer-reviewed literature.
- Our understanding of how EDCs work has been vastly deepened.
- A lot of this research has been on plastics and what is in them

The bottom line is that it is much worse than we realized 25 years ago. It's on a scale of bad somewhere near, if not equal to, climate change. And some of its worst impacts may strike well before climate change's worst consequences unfold.

The Endocrine Society, the world's largest professional association of doctors and scientists specializing in hormone related diseases, has identified endocrine disruption as its top public policy issue, because its membership is on the front lines of witnessing, and treating, a wave of non-communicable endocrine-related epidemics that research has revealed are at least in part caused by endocrine disruption.<sup>2</sup>

All that research has made it very clear that common chemical exposure levels... levels that people encounter every day... can have severe effects (Infographic 3).

Hundreds of epidemiological studies published in the last 20 years support that assessment, as do thousands of laboratory studies with animals, cells and cellular machinery.

---

<sup>1</sup> Data integration, analysis and interpretation of eight academic CLARITY-BPA studies.  
doi: [10.1016/j.reprotox.2020.05.014](https://doi.org/10.1016/j.reprotox.2020.05.014)

<sup>2</sup> Endocrine-disrupting chemicals. An Endocrine Society Position Statement.  
<https://www.endocrine.org/advocacy/position-statements/endocrine-disrupting-chemicals>