

PRESS RELEASE

## Nineteen endocrine disrupting pesticides found in samples of women's hair

**Paris, 12 March 2015** – To what extent are women in the child bearing age group exposed to endocrine disrupting pesticides? The fourth part of a study series by French NGO Générations Futures' provides results of human biomonitoring for endocrine disruptors in samples of women's hair.

**Endocrine disruptors:** Endocrine disrupting chemicals (EDCs) are chemicals that can affect the hormonal system of the body and produce adverse effects on the individual or his or her descendants. Unborn and young children are most at risk of being exposed to these substances. A recent study showed that the impact of these EDCs could have significant costs for society (between 1 and 2% of GDP in Europe!).<sup>i</sup>

**Act now:** To demonstrate the urgency of preventive action in the field of endocrine disruptors, Générations Futures decided to carry out a series of EXPPERT<sup>ii</sup> reports (French abbreviation for exposure to endocrine disruptors), which show that the presence of EDCs in our environment leads to significant population exposure. Since young and unborn children are especially vulnerable, Générations Futures wanted to identify the extent to which vulnerable groups are exposed to EDCs, including *in utero*.

**A novel and targeted survey:** The EXPPERT survey 4<sup>iii</sup> puts the focus on the exposure of women of childbearing age who are living in urban areas in the region Ile de France (greater Paris area). The investigation was carried out by an independent research laboratory using samples of a strand of hair from 29 women. The samples were collected between March and October 2014. Only 28 samples were analysed as one of the hair samples was found to be inadequate. The laboratory work was carried out in early 2015 testing for 64 suspected endocrine disrupting chemicals<sup>iv</sup>, including 54 pesticides or pesticide metabolites, six brominated flame retardants and four PCBs.

**Results:** The synthesis results confirmed our fears. An average of 21 EDCs were found per woman, including 19 pesticide EDCs. The number of EDCs found ranged from 32 to 12 per hair sample. In terms of weight, the lowest average amount of EDC residues per sample was 109.39 picogramme/milligram<sup>v</sup>. The maximum amount per sample was 387.27 pg/mg (in comparison to 24.14 pg/mg for the lowest one). In other words, there was a 1:16 ratio between the less contaminated and most contaminated!

*"These results show that all these women in childbearing age are contaminated. We are very concerned about the possible effects for the women's children later in their lives. However, significant differences exist between individuals demonstrating that the environment and/or diet of these women play an important role in their level of exposure to EDCs. We must act on these factors to reduce to exposures to the maximum extent,"* says François Veillerette, spokesperson for Générations Futures. *"We have taken note of the progress of the French National Strategy on EDCs (SNPE) in taking into account the need to reduce the EDCs exposure of citizens. It is now time for the European Commission to finally publish a protective definition of EDCs, which will enable the EU Regulations on pesticides and biocides to be fully implemented,"* he concludes.

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<sup>i</sup> <http://www.generations-futures.fr/perturbateurs-endocriniens/cout-important/> (In French) Massive health costs from EDCs prompt further calls from HEAL for regulation, 5 March 2015, <http://www.env-health.org/resources/press-releases/article/massive-health-costs-from-edcs> (In English)

<sup>ii</sup> [Exppert 1](#) et [Exppert2](#) (in French)

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**EXPERT Survey 1: Which endocrine disrupting insecticides are children exposed to everyday?**  
Press release, Brussels, 25 March 2013, [www.env-health.org/IMG/pdf/gf\\_and\\_heal\\_press\\_release.pdf](http://www.env-health.org/IMG/pdf/gf_and_heal_press_release.pdf)

**EXPERT Survey 2: Endocrine Disrupting Chemicals and banned Pesticides in strawberries**  
Press release, 25 March 2013, <http://www.env-health.org/news/latest-news/article/what-s-in-your-strawberries>

**EXPERT Survey 3: How are children exposed to Endocrine Disrupting Chemicals?**  
Press release, 9 July 2014, <http://www.env-health.org/resources/press-releases/article/21-residues-of-endocrine>

<sup>iii</sup> Full report available here : <http://www.generations-futures.fr/perturbateurs-endocriniens/expert-4> (In French)

<sup>iv</sup> Details of substances investigated: 24 organochlorine pesticides or their metabolites, 10 organophosphate metabolites, 11 pyrethroids or metabolites, 4 PCBs, 1 carbamate metabolite, 4 fungicides, 6 PBDEs, 4 pesticides and further metabolites

<sup>v</sup> For the study carried out with children's samples (study EXPERT 3), the average amount by weight found was 639 pg/mg per child