

Written Testimony of Tanya L. Murphy of Westport, CT,
Before the **Connecticut General Assembly Select Committee on Children**,
February 28, 2013

Testimony in Support of
Raised Bill 3694, An Act Concerning Toxics Disclosure and Innovation for Healthy Children
Raised Bill No. 3794, An Act Concerning Genetically Engineered Baby Food
House Bill 6332, An Act Concerning Toxic Fire Retardants in Children's Products

Dear Senator Bartolomeo, Representative Urban, and Honorable Members of the Committee on Children,

My name is Tanya Murphy and I am a resident of Westport, CT. I serve as an Advisory Board Member of the Mount Sinai Children's Environmental Health Center, as well as an Honorary Board Member of Healthy Child Healthy World. Thank you for serving and for your interest in the welfare of our children.

I am a fortunate mother of two healthy children and attribute some of that to my education in understanding the link between the environment and human health, which came prior to conception of my first born. I came to understand that subtle exposures to chemicals during pregnancy and during the early years of a child's development can put a child at risk for life. Studies are now suggesting there is not only a direct relationship between toxic exposures in utero and in childhood, but that these exposures are having an epigenetic consequence and may be affecting future generations through the damaging of DNA.

Our children may be 25% of our population, but they are 100% of our future. They are unconsenting test subjects in a massive experiment. Currently over 125 million children suffer from cancer, autism, asthma, birth defects, ADD/ADHD and learning and developmental disabilities. Scientific evidence increasingly points to environmental chemicals as contributing too many of these diseases. More than 85,000 chemicals are currently in use in the marketplace today. Many we find in our homes and only about 4,000 of them have been tested for potential toxicity to adults, much less children. Children have a unique vulnerability. Their organs are still developing and the most rapid cellular development is from conception to age 6. Pound for pound they breathe more air and consume more than adults. Because of their behavior they are more at risk too – putting hands in their mouths and being closer to the ground.

For example, one chemical of concern is BPA which is ubiquitous in plastics. Research is proving exposures are contributing to the obesity and cancer epidemics. They are not only effecting current generations, but through the study of epigenetics, researchers are finding further generations are being affected. Dr. Dana Dolinoy of Duke University demonstrates the role of the epigenome whereby mice are fed high doses of BPA and their offspring become obese and their fur turns yellow. Please see this link to view a video:
<http://www.pbs.org/wgbh/nova/body/epigenetic-mice.html>

There is a plethora of science, however in a study called "Plastics Derived Endocrine Disruptors (BPA, DEHP and DBP) Induce Epigenetic Transgenerational Inheritance of Obesity,"

Reproductive Disease and Sperm Epimutations” results show that several generations of mice were at risk, saying “There were significant increases in the incidence of total disease/abnormalities in F1 and F3 generation male and female animals from plastics lineages. Pubertal abnormalities, testis disease, obesity, and ovarian disease (primary ovarian insufficiency and polycystic ovaries) were increased in the F3 generation animals. Kidney and prostate disease were observed in the direct fetally exposed F1 generation plastic lineage animals.”¹

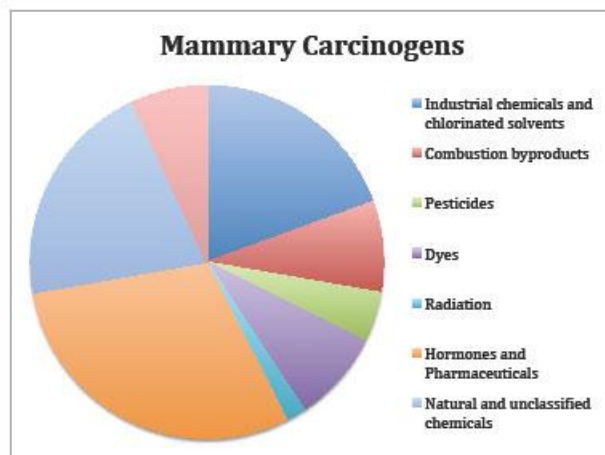
Mount Sinai Children’s Environmental Health Center has developed a list of ten chemicals found in consumer products that are suspected to contribute to autism and learning disabilities to guide a research strategy to discover potentially preventable environmental causes. The top ten chemicals are:

1. Lead
2. Methylmercury
3. PCBs
4. Organophosphate pesticides
5. Organochlorine pesticides
6. Endocrine disruptors
7. Automotive exhaust
8. Polycyclic aromatic hydrocarbons
9. Brominated flame retardants
10. Perfluorinated compounds

Although further studies are necessary, here are some graphs recently published in Environmental Health News concerning breast cancer and early exposures:

<http://www.environmentalhealthnews.org/ehs/news/2013/breast-cancer-part-1>

Chemicals that cause breast cancer in animal tests	
Chemical	Source
1,4-dioxane	Detergents, shampoos, soaps
1,3-butadiene	Common air pollutant; vehicle exhaust
Acrylamide	Fried foods
Benzene	Common air pollutant; vehicle exhaust
Vinyl chloride	Used to make vinyl
1,1-dichloroethane	Industrial solvent; also some consumer products such as paint removers
Toluene diisocyanate	Foam cushions, furnishings, bedding
Methylene chloride	Furniture polish, fabric cleaners, wood sealants and other consumer products
PAHs	Diesel and gasoline exhaust
PCBs	Electrical transformers; banned but still in environment
Atrazine	Herbicide, particularly for corn



The **precautionary principle** states “if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is *not* harmful falls on those taking an act. This principle allows policy makers to make discretionary decisions in situations where there is the possibility of harm from taking a particular course or making a certain decision when extensive scientific knowledge on the matter is lacking. The principle implies that there is a

social responsibility to protect the public from exposure to harm, when scientific investigation has found a plausible risk. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result.”²

The European Union has applied the precautionary principal in its “REACH” legislation, (Registration, Evaluation, Authorization and restriction of Chemical substances) in which its citizens are given basic rights of protection from chemicals that have been shown to have adverse effects on the environment and human health.

Thank you for this opportunity and for forming the Committee on Children. It’s through this type of communication along with collaboration with the scientific community and industry, that we can turn the tide in the epidemic rise in rates in autism, cancer, asthma and obesity in our children. I urge your support of **Raised Bill #3694, Raised Bill #3794 and House Bill 6332.**

Appreciatively,

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Advisory Board
Mount Sinai Children’s Environmental Health Center
Honorary Board
Healthy Child Healthy World

1. “Plastics Derived Endocrine Disruptors (BPA, DEHP and DBP) Induce Epigenetic Transgenerational Inheritance of Obesity, Reproductive Disease and Sperm Epimutations.” [Manikkam M, Tracey R, Guerrero-Bosagna C, Skinner MK](#). Source: Center for Reproductive Biology, School of Biological Sciences, Washington State University, Pullman, Washington, United States of America. <http://www.ncbi.nlm.nih.gov/pubmed/23359474>
2. Wikipedia, http://en.wikipedia.org/wiki/Precautionary_principle