Latest PBB Epigenetic Research Findings

The PBB research team at Emory University recently published new findings in the journal, Epigenetics. Below is a summary of the article, links to the press release, media coverage and the scientific article itself. At the bottom is a brief explanation of epigenetics.

Summary:
The study evaluated whether current PBB levels are associated with epigenetic differences – the differences in the chemical groups on top of DNA that can affect to what degree genes are expressed. We found differences in over 1800 different regions of the genome. Specifically, regions regulated by endocrine disrupting compounds (i.e. dioxin) or hormones (i.e. estrogen), and regions that are important for proper immune function. We are in the process of examining whether or not these differences are associated with health problems reported by those exposed to PBB.

- Click here if you would like to read the press release about the latest epigenetic findings.
- Click here if you would like to read a news article in the Morning Sun newspaper about the latest epigenetic findings.
- Click here to go to the scientific publication.

Epigenetics:
Epigenetics is the study of these processes.

Many of the chemicals we are exposed to, the foods we eat, and the stress we experience may change the extent to which our genes are expressed — and influence our mental and physical health because of that.

DNA is the genetic structure that regulates body functions. This regulation can be modified even without changing a person's DNA. Epigenetic change is one way this regulation can be altered.

Heavy metals, industrial chemicals, plastics, pesticides, smoking, stress and trauma, and dietary factors have been shown in animal and human studies to turn on, increase, decrease, or turn off the expression of certain genes and affect chronic disease risks.