

February 22, 2012

To the Environment Committee,

I strongly support **HB 5117**. All consumers have a right to know what they are eating as well as what type of business practices and effects on the environment they support on a daily basis. Parents trying to do the best for their children have a right to know.

I'm a Neuroscience Professor at Trinity College. I moved here from the University of Colorado Medical School, and my research is on the effects of diet on brain function. It is published in major peer-reviewed journals, and for over 10 years my work has been supported by the National Institutes of Health and more recently also the National Science Foundation. My work is not about genetically modified foods (GMOs) per se, it is on an established dietary therapy for epilepsy. Historically, the science associated with diet and brain function has been a "mixed bag" of scientific quality – from some excellent well-controlled studies to fads. However, multiple, recent, well-controlled studies in adults and adolescents have shown that diet does impact significantly your risk for mental illnesses like depression and anxiety.

Because of my interest in the effects on diet on brain disease, I have been looking into published research on the effects of GMOs on health for a few years, and I find it entirely lacking. Major early papers on GMOs that found serious problems were never replicated and, in short, science has been repressed. There is the catastrophic problem that the industry polices itself and funds and designs its own safety studies. The majority of the work that has been published offers short-term feeding studies and examines rather gross changes in major organs. However, subtle chronic effects, such as inflammation, are known to be a harbinger of many chronic diseases, such as cancer and heart disease, and neurological disorders such as Alzheimer's, autism and epilepsy. These subtle and chronic effects take a long time to precipitate a diagnosable disease. Because these diseases and disorders are chronic and prevalent (and increasing) and diet is so difficult to monitor in humans, it is in my opinion nearly impossible to prove cause and effect in a human population.

This difficulty in proving cause and effect is what allows industry-sponsored "negative findings," (i.e. no major organ changes found in short-term feeding studies with selected ingredients) to remain as the "safety studies." It is human nature that finding or funding something "new" is more alluring than safety studies, but the latter is critical, underfunded and underregulated. To date, to my knowledge, there has been no research, well designed or not, on the effects of GMOs on brain function in any animal model. If anyone knows of any studies I would be very interested, and if anyone could provide me with an adequately matched GMO and non-GMO diet I would be very interested in doing this work. Despite all the research tools and money and special diets for research animals in this country, this opportunity is just not available. It is literally impossible for scientists in this country to do this type of research.

In sum, an inability to do the research, and a lack of unbiased and well-designed research is a serious problem, particularly with more and more parents struggling to deal with children with developmental disorders like autism, ADD, and even more serious “adult” mental illnesses which are increasing in children – depression and even bipolar disorder. Due to the problems noted above it is very difficult to sort out relative contributing factors – i.e. is it refined carbohydrates, pesticides, GMOs, an imbalance of omega 3 to omega 6 oils, etc. but it is undeniable that more and more studies are showing the diet plays an important role. Parents are trying to minimize or avoid exposing their children to drugs, and diet and exercise play a primary role in health and particularly brain health. We need labeling.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Susan Masino".

Susan Masino
Associate Professor of Psychology and Neuroscience
Trinity College