

*Scientific Review****Scientists Identify Brain Cell Toxicity***

“Effects occur at low levels of neurotoxicants where toxic injury to the cells was otherwise not detectable.”

Individuals and families of those with autism, multiple chemical sensitivity, fibromyalgia, chronic fatigue, and other illnesses have long blamed the toxic effects of chemicals for their symptoms. Indeed many parents can trace autism back to a vaccination reaction. Those with multiple chemical sensitivity, chronic fatigue, and fibromyalgia can sometimes trace their declining health back to a toxic exposure.

When xenobiotics (toxic foreign substances) enter the body, they often interfere with the central nervous system and produce a host of ill effects. What has been frustrating for many individuals is the lack of tests that show proof of this toxicity for accommodations and disability purposes.

Scientists believe that monitoring electrophysiological activity may be an effective way of determining levels of neurotoxicity in brain cells. Because the central nervous system

primarily works to manage neuronal activity, changes may indicate toxicity.

The scientists studied the electrophysiological properties of cell cultures with various neurotoxicants. They found effects that occurred at low levels of neurotoxicants where toxic injury to the cells was otherwise not detectable.

Their discovery, therefore, appears to be suitable to assess toxic injuries to brain cells, specifically those interfering with central nervous system function.

The autism epidemic is grabbing more victims daily. Rates of multiple chemical sensitivity are soaring beyond those of diabetes. This new measurement holds promise for the future for better testing that may identify toxic brain cell injuries and unsafe chemicals that require stricter regulation.

Being able to identify how brain cells are affected by neurotoxicants is an exciting discovery!

Reference

Van Vliet E, Stoppini L, Balestrino M, Eskes C, Griesinger C, Sobanski T, Whelan M, Hartung T, Coecke S. Electrophysiological recording of re-aggregating brain cell cultures on multi-electrode arrays to detect acute neurotoxic effects. *Neurotoxicology*. 2007 Nov;28(6):1136-46. Epub 2007 Jun 26.

