

Urinary Isoprostane Levels in Autism Spectrum Disorders: An Index of Oxidative Stress

PRIMARY INVESTIGATORS:

- Matthew Goodwin, The Groden Center
- Woody McGinnis, Oxidative Stress in Autism Study
- George Lambert, University of Medicine and Dentistry
- June Groden, The Groden Center

DESCRIPTION:

Emotional stress is associated with physical markers for oxidative stress. The current study will assess whether treatment offered at the Groden Center results in behavioral and emotional improvements and corresponding reductions in oxidative stress in children with autism. We hypothesize that (i) increased behavior problems and emotional stress will correspond with increased urinary isoprostanes, a measure of oxidative stress; and conversely that (ii) decreased behavior problems and emotional stress will correspond with decreased urinary isoprostanes. These hypotheses will be tested in 10 children with ASD as they enroll in the Groden Center by comparing their isoprostane levels and global/direct ratings of behavior after the first week of enrollment with serial measurements at 1 month intervals until behavior problems and emotional stress have decreased, as determined by the behavioral intake team.