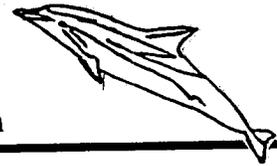


# Department of the Planet Earth

701 E Street, SE - Suite 200, Washington, DC 20003

(301) 475-8366 - planetearth@erols.com; www.deptplanetearth.com



11 9 1 6 FEB -9 P 1:49

Judith Kidwell, HFS-265  
5100 Paint Branch Parkway  
College Park, MD 20740

January 31, 2006

Docket No: 2005-0377/CP 1

**Re: Oxidative Stress and 32 Percent Increase in Area Occupied by Mossy Fibers in Older Laboratory Rats Exposed Chronically to Dietary Aluminum.**

Dear Judy,

Here is another study finding substantial biological effects on the brains of old laboratory rats chronically exposed to aluminum in the diet. The levels of aluminum, copper, zinc, and manganese were significantly increased in the brain as a result, the later probably reflecting increased SOD in response to the oxidation produced by the aluminum.

A dramatic increase in area occupied by mossy fibers was seen. I understand from review of the published studies that this type of brain remodeling might be seen in epilepsy patients. Chronically elevated dietary aluminum, as produced with enrichment using aluminum based food additives, is clearly not safe for older animals. As the authors conclude:

"Taken together, the present findings support the concept that aging seems to represent a condition in which the CNS (and to a greater extent the hippocampal formation) is particularly susceptible to a chronic intake of aluminum with the diet. As reported by several experiments from different laboratories, increased Al intake may lead to an exacerbation of oxidative stress and to the development of a typical neurodegenerative disease of the senile brain, for example, Alzheimer disease."

With best regards,

Erik Jansson, Exec. Dir.

2005P-0377

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