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SEE INSERT: DAN! CONFERENCE INFORMATION; STARTLING AUTISM STATS FROM CALIFORNIA

Autism Research Review INTERNATIONAL

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Reviewing biomedical and educational research in the field of autism and related disorders

More evidence links autism to measles vaccine

Researchers have now detected measles genetic material in the cerebrospinal fluid of three children who developed autism shortly after MMR (measles-mumps-rubella) vaccination. This finding is further evidence of an MMR-autism link, and indicates that the measles virus is actively replicating in some autistic children.

Jeff Bradstreet and colleagues compared cerebrospinal fluid (CSF) samples from their three autistic subjects to samples from non-autistic controls. The autistic children all had histories of normal development before vaccination. Following MMR immunization, all had developed both autistic regression and ileal lymphoid nodular hyperplasia, a gastrointestinal abnormality seen in many autistic children. Genetic material from the measles virus had already been identified in GI biopsies from all three children.

The researchers report that:

—The samples from all three autistic children, but none of the control children, were positive for the presence of the measles virus fusion gene in CSF.

—Antibodies to myelin basic protein were present in the blood of all three autistic children, and in the CSF of two of the autistic children, but in none of the controls. This adds further support to the hypothesis that measles virus causes an inappropriate autoimmune response in which the body attacks the myelin surrounding nerve cells.

—Measles virus IgG antibody titers were high in the sera of two autistic children, and detectable at a low level in the CSF of these children.

"Viral genome in the presence of measles virus IgG in the CSF of two children is supportive of [CSF] antibody synthesis," the researchers say, "probably in response to intracerebral infection. This is supported by detection of antibodies to myelin basic protein in the CSF of the same children."

The researchers note, "This study reports for the first time simultaneous detection of measles virus genomic RNA in at least two sites—ileal lymphoid tissue and CSF—in three children with regressive autism." Previous research, they say, indicates that detection of the measles virus genome in two or more body sites is an indication of ongoing viral replication.

Moreover, they say, the detection of viral RNA in the peripheral blood mononuclear cells of one autistic child is strong evidence of continuous virus replication, "given the relatively rapid turnover of circulating immune cells."

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Thimerosal causes autism-like symptoms in susceptible mice

Low-level exposure to mercury can cause autism-like damage in mice susceptible to autoimmune disorders, according to new research that strongly implicates the mercury-laden vaccine preservative thimerosal as a contributor to the current epidemic of autism.

Mady Hornig and colleagues exposed two groups of mice—normal mice, and mice bred to be susceptible to autoimmune disease—to doses of mercury that were calibrated using the U.S. immunization schedule for children, basing doses on 10th percentile weight of U.S. boys aged 2, 4, 6, and 12 months.

Hornig et al. report that mice bred to be susceptible to autoimmune disease showed many abnormalities in response to thimerosal exposure, including abnormal response to new surroundings; limited range of behavior and decreased exploration of their environment; increased brain size; and abnormalities in brain structure, especially in areas involved in emotion and cognition.

"These findings," the researchers say, "implicate genetic influences and provide a model for investigating thimerosal-related neurotoxicity."

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"Neurotoxic effects of postnatal thimerosal are mouse strain dependent," M. Hornig, D. Chian, and W. I. Lipkin, *Molecular Psychiatry*, June 8, 2004 (epub ahead of print). Address: Mady Hornig, Jerome L. and Dawn Greene Infectious Disease Laboratory, Department of Epidemiology, Mailman School of Public Health, Columbia University, 722 W. 168th St., New York, NY 10032, mh2092@columbia.edu.

—and—

"Thimerosal, found in childhood vaccines, can increase the risk of autism-like damage in mice," news release, *Molecular Psychiatry*, June 8, 2004.

Washington DAN! Conference a spectacular success; LA conference to feature recovered autistic children

Each Defeat Autism Now! (DAN!) Conference earns terrific accolades: "Best DAN! yet," "Best, most valuable conference yet," "Most informative conference I ever attended."

The Spring 2004 DAN! Conference in Tysons Corner Virginia, a Washington DC suburb, was no exception. The sell-out crowds were excited and enthusiastic, and gave the speakers many standing ovations.

A splendid keynote address by Representative Dave Weldon, M.D. (see page 3) was of historic importance to the autism community. Read it, and pass it along to your skeptical friends and your doctors who have believed, until now, that the vaccines have not been shown to cause autism. Representative Weldon's speech is compelling.

Dr. Weldon has been invited to present another keynote address at the next DAN! Conference, at the Los Angeles Airport Westin Hotel October 1 through 4. (October 4 will be devoted to Continuing Medical Education courses for physicians and nurses.)

This conference will feature a first-time-ever occasion: the introduction of *recovered* autistic children to the audience and to the media. Yes, our DAN!-developed methods have resulted in the recovery of *thousands* of formerly autistic children. Many of these children and their parents will be available to be interviewed by the media. To draw additional attention to this real-life evidence that "Autism is Treatable," we hope to arrange for a celebrity Master of Ceremonies to introduce the recovered autistic children.

Come to the L.A. DAN! meeting, join the fun, and learn how autistic children can and do recover.