



**BIO ENERGY**  
MEDICAL CENTER  
TREATING ILLNESS AT ITS SOURCE

## Testimony of James R. Neuenschwander

I would like to thank this committee for the opportunity to speak on a topic which has become essential for the future health of our children. I have been a physician for over 30 years, trained at the University of Michigan (both medical school and residency) and am board certified in Emergency Medicine and Integrative medicine. I have an integrative medicine practice in Ann Arbor, since 1988, where I have helped patients manage chronic illness. I am also the father of three, step father of three, and grandfather of three including a child on the autism spectrum. Since the mid 2000's, I have become increasingly interested in the epidemic of autism. This exposure had been initially through the children of my clients, but has taken on a life of its own. The stories from parents about how their neurotypical child became autistic are heartbreaking and pushed me to learn more. As a result of this, I have spent countless hours reading the research on autism and became a fellow of the Medical Academy of Pediatric Special Needs (MAPS). Treating and preventing autism has become the major focus of my professional life. I now lecture on the topic of biomedical management of issues associated with autism spectrum disorders (ASD), particularly involving gut health and the links between gut health, brain function, and immune system competence.

For some time, autism has been recognized to have a component of immune dysfunction. Early autopsy evaluation of brain tissues from persons with ASD demonstrated much higher levels of immune hormones (cytokines) that are involved in inflammation. These same studies demonstrated activation of glial cells in the brain—cells that act like immune cells for the brain. Similar elevations of inflammatory cytokines were noted on results in spinal fluid from kids on the spectrum that were undergoing spinal taps. Since the brain is a privileged site—it has a blood brain barrier where the blood never comes in contact with the neurons of the brain—this information was very concerning. What was causing this inflammation? Could resolving this inflammation improve a person's ASD symptoms? It is now believed that much of regressive autism is secondary to this brain inflammation. Although, traditionally, only 25% of autism is considered regressive, a recent study in which children were routinely evaluated prospectively, showed that almost 90% of children that developed autism regressed into that diagnosis—they were born neurotypical. Given all of this information, it would be reasonable to conclude that most of autism involves the process of brain inflammation.

In the 1990's, Dr. Swedo at the NIH and Dr. Cunningham at University of Oklahoma, began to publish papers on a new syndrome that Dr. Swedo named PANDAS (pediatric autoimmune neuropsychiatric disorder associated with Streptococcus). PANDAS originally described kids that were essentially neurotypical that would suddenly develop separation anxiety, severe behavioral changes, OCD, eating disorders (problems swallowing, food aversions, etc.), changes in sleep patterns, movement disorders (tics), and multiple other symptoms. This appeared to



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be related to either active infection with group A Streptococcus (GAS) or exposure to someone with GAS. These "psychiatric" disorders would improve or resolve with antibiotics. Research into this new syndrome revealed that it was caused by a phenomenon known as molecular mimicry. In this case, the body makes antibodies to the Strep bacteria that then cross react with the brain causing an autoimmune encephalitis (inflammation of the brain). Subsequent work has revealed that the same process can be caused by other infections (PANDAS) or by environmental insults. The term, PANS (pediatric acute-onset neuropsychiatric syndrome), was coined as an overarching term to include all causes of this autoimmunity. Because this syndrome is ultimately an autoimmune encephalitis, treatment of the causative agent (infection or environmental insult) does not necessarily resolve the syndrome—once the autoimmunity had been established, it can take on a life of its own. If an agent can be identified (like GAS), then antibiotics are the first intervention. Unfortunately, PANS requires long term use of these antibiotics; and their effectiveness tends to diminish over time. The other way to treat PANS acutely is with steroid bursts and tapers. This can be very effective at both establishing a diagnosis as well as treating an acute flare. Like antibiotics, steroids have significant side effects when used for any length of time. This has led to other autoimmune interventions including intravenous immunoglobulin (IVIG) therapy and plasmapheresis. In the former, antibodies derived from the plasma of health donors are pooled and administered intravenously to the patient suffering from PANS. In the latter, the antibodies are removed from the plasma of the affected individual. Both of these treatments can be highly effective and have been recommended in two consensus papers on the treatment of PANS/PANDAS. There is also a blood test that can measure four of the autoimmune antibodies involved in PANS/PANDAS as well as a general marker for brain autoimmunity (the Cunningham Panel—developed by Dr. Cunningham).

We are now realizing that many of the children with ASD also have PANS/PANDAS type syndromes contributing to or causing their autism. In my personal practice, over 90% of the children with autism and brain inflammation markers that I have been able to test with the Cunningham panel have positive results suggesting PANS/PANDAS. Given this information, I have tried to implement the recommended therapy. Antibiotics are readily available and sometimes very effective, but the benefit is limited. Steroids are very beneficial in confirming the diagnosis—a child that improves after a steroid burst almost certainly has brain inflammation from one of these syndromes as part of their autism. Getting neurologists to recognize these syndromes has been a challenge and getting insurance companies to cover either IVIG or plasmapheresis has been impossible. The same is true for coverage of the Cunningham Panel blood test. The only patients in my practice to receive these therapies have had to go out of state and pay cash for the testing. This has left me with the knowledge that my patients are suffering with a recognized disease in which the diagnostic testing and the treatments of choice are not available strictly because insurance companies consider these them experimental (and expensive) and will not cover them in Michigan. Given the fact that two pediatric neurology journal issues have been devoted solely to the recognition and treatment of PANS/PANDAS and that the consensus for treatment (after antibiotics and steroids) is to use IVIG, plasmapheresis, and rituximab (a drug that destroys cells that make antibodies), I am not sure how an insurance company can call this approach experimental.



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I beg that this committee move forward with a plan to mandate coverage for both diagnosis and treatment of this syndrome that appears to affect so many of our children. Like the insurance mandate changed the face of ABA therapy for autism and has had a huge, positive impact on autism treatment, you now have the opportunity to make that same kind of change.

Thank you

A handwritten signature in black ink, appearing to read 'James R. Neuenschwander', written over a horizontal line.

James R. Neuenschwander, M.D.

## James Neuenschwander

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### *Curriculum Vitae*

#### Education

B.S.—Honors degree in cellular and molecular biology. University of Michigan 1978-1981  
MD—University of Michigan Medical School 1981-1985  
Residency—University of Michigan Hospitals residency in general surgery 1985-1988  
(left voluntarily to pursue integrative medicine practice)

#### Experience

Owner/Medical Director Bio Energy Medical Center 1988-present  
([bioenergymedicalcenter.com](http://bioenergymedicalcenter.com))

Founder and owner of integrative medical practice specializing in the management of autism and childhood behavioral disorders as well as chronic diseases including fibromyalgia, chronic fatigue, chronic inflammatory response syndrome, chronic infections (including Lyme disease), and autoimmune disorders with patients from all of Michigan and surrounding states. Offering biochemical evaluations and integrative treatments not available elsewhere.

Website: [www.bioenergymedicalcenter.com](http://www.bioenergymedicalcenter.com)

Caro Hospital Emergency Services 2003-2015

Attending staff in small (5K visit) community hospital emergency room

Gratiot Community Hospital Emergency Services 2008-2015

Attending staff in (14K visit) community hospital emergency room

Oakwood Hospital Annapolis Center Emergency Services 1987-2001

Attending staff in busy (45K) community hospital emergency room

#### Affiliations/Memberships

Association of American Physicians and Surgeons

American College for the Advancement of Medicine

American Academy of Anti-Aging Medicine  
American College of Integrative and Holistic Medicine  
Medical Academy of Pediatric Special Needs  
International Lyme Associated Disease Society  
International Hyperbaric Association

### **Speaking Engagements**

Regular speaker for the Medical Academy of Pediatric Special Needs (MAPS)  
Topics: gut abnormalities, gut-brain-immune connections, and toxicity in autism  
Speaker for Autism One  
Topics: gut-brain-immune connections and abnormalities in autism

### **Certifications**

Board of Certification in Emergency Medicine 1996, 2006, 2016  
Certification by The American Board of Integrative Medicine 2017 (initial year offered)  
Certified Chelation Therapy (inaugural group certified through ACAM) 2007  
Fellow American Academy of Regenerative Medicine 2011  
Certification by American Board of Integrative and Holistic Medicine 2010  
Fellow of Medical Academy of Pediatric Special Needs 2014 (initial class of fellows)

## Bio

Dr. Neuenschwander (aka Dr. Neu) is a graduate of the University of Michigan Medical School (1985) after completing an undergraduate degree in cellular and molecular biology and the University of Michigan (1981). He entered a general surgery residence at the University of Michigan hospitals to pursue a career in transplant surgery. In 1988, he had his eyes opened to the world of integrative medicine—an entire world of healing that tried to address health issues by going to the source of the disease and treating it from there. As a result of this experience, he left his general surgery residency and pursued a career in Integrative medicine. He opened his private practice, Bio Energy Medical Center, in 1988 and continued a parallel career in Emergency Medicine. He has been board certified in Emergency Medicine since 1996 and was one of the first to receive the board certification in Integrative Medicine in 2017. Since 2007, he has been heavily involved in the biomedical treatment of autism and childhood behavioral disorders. This has led him to heavily investigate the research that is available on the causes and possible treatments for these children and adults that carry this diagnosis. As a result, he has also become an (frequently unwilling) expert on the syndromes of PANS and PANDAS—recognizing that many children on the spectrum suffer from autoimmune encephalitis (brain inflammation) that is likely caused by these disorders. Dr. Neu is a frequent lecturer for various organizations interested in the treatment of autism and his favorite topic is the gut issues frequently associated with autism and the gut and immune connections between these gut issues and the overall health of the child. He brings years of experience in this field to this committee and offers a unique perspective from the practitioner's point of view on the frustrations he experiences in attempting to treat these children.