

AGE OF AUTISM

Top Mitochondrial Researcher: “We have always advocated spreading the immunizations out as much as possible.”

By David Kirby – 6-24-08

I recently noticed that the minutes from the April 11, 2008 meeting of the Vaccine Safety Working Group of HHS’s National Vaccine Advisory Committee were published online.

I will be commenting more soon on the extraordinary meeting, and on the CDC’s draft vaccine safety research agenda, which was the topic of this meeting, held on the top floor of HHS headquarters in Washington. But I wanted to highlight the remarks of one of the public speakers – Dr. Douglas Wallace, a leading mitochondrial researcher in the country.

Dr. Wallace is Professor of Molecular Medicine at the University of California, Irvine and director of its Center for Molecular and Mitochondrial Medicine in Genetics. He has worked on mitochondria and their role in human disease for nearly 40 years. His lab helped define the original genetics of mitochondria and demonstrated maternal inheritance to mitochondrial DNA. It was also first to identify mitochondrial DNA disease.

Dr. Wallace is a parent of two children, as well, including a 23-year-old son with autism. His wife, with two Masters Degrees, “has spent her entire life taking care of this child who will never live independently,” he told the committee. “So we certainly appreciate the complexities of having a disabled child and the lifelong burden that such a challenge will have for a family.”

Dr. Wallace, speaking on behalf of the United Mitochondrial Disease Foundation, where he sits on the Scientific and Medical Advisory Board, flew to Washington to attend the meeting along with Chuck Mohan, CEO of the foundation.

I spoke with both men that day, and they were kind, respectful and, it seemed to me, supportive of my work. Mostly, they were tremendously grateful that the word “mitochondria” was being uttered in the halls of public health. Some of the world’s leading vaccine safety experts were present.

“When it became clear that there was a question about vaccines, mitochondria and autism, which was so ably enunciated by Ms. Poling (Hannah’s mother Terry, who had just testified), the Scientific Medical Advisory Board has had a lot of discussions about what position the UMDF should take on vaccines in relation to people that suffer from known mitochondrial disease,” he testified before an attentive committee.

“I think it's fair to say that the Scientific and Medical Advisory Board strongly advocates continued vaccination of children,” he said. “However, I think it's also fair to say, and this is true for my practice, that we have always advocated spreading the immunizations out as much as possible because every time you vaccinate, you are creating a challenge for the system, and if a child has an impaired system that could in fact trigger further clinical problems.”

“Unfortunately,” Dr. Wallace conceded, “we don't have any data to support any of our discussions on this area. We do not know what is safe. We do not know what is not safe. We do not know the actual risk of a person with light mitochondrial disease has and being challenged either by vaccination or by a latent - by a severe infection.”

Dr. Wallace said UMDF believes that a severe infection would cause “far more stress” than a vaccination, but added, “We can control the vaccinations; we can't control the infections. So I think we need a much more careful consideration about how to use the vaccinations to the maximum benefit of the patient, even a patient with mitochondrial disease.”

The question, then, becomes, “is there a relationship between mitochondrial disease and vaccination and mitochondrial disease and autism?” Dr. Wallace told the committee. “Would a vaccination or infection initiate an incipient mitochondrial disease, as has been suggested?”

There is no way to prove this, he said. But he did bring up a disease called Leigh's syndrome, the best known pediatric disease associated with mitochondrial oxidative phosphorylation defects. Children with Leigh's are normal at birth and the first several years of life (in contrast, Hannah began regressing at 19 months), “then invariably they're reported by the parent to have a transient increase in temperature that is B febrile, and then progressively lose intellectual and motor milestones, the baso ganglia dies out, and they die.”

Hannah Poling, of course, did not have Leigh's syndrome, nor did she have any classic form of mitochondrial “disease.” She had a much milder form of mitochondrial “dysfunction,” which was possibly acquired.

Dr. Wallace also said that mitochondrial diseases are not rare. They may, “in fact be the most common cause of pathophysiology that is known.”

Why don't we know for sure? Modern medicine, says Dr. Wallace:

“Medicine traditionally has been organized around anatomy and, therefore, there are specialists in all the different organ systems, and so in fact it is very difficult for an organ specific specialist to understand a systemic disease, but in fact life is related to both structure and energy and energy is systemic even though structure is organ specific,” he testified.

“So we've spent most of our care health-care dollars looking about at structure and organ specific symptoms and not thinking about systemic disease, and systemic disease is about energy, and energy is about the mitochondria because mitochondria provides 98% of the energy.”

If science can be poetry, Dr. Wallace comes awfully close.

The sad lack of data on mitochondria and vaccines makes it difficult to know what to recommend vis-à-vis childhood immunizations, Dr. Wallace said. That's because “that whole area, the energy biology of health and disease is essentially unexplored.”

The UMDP, “really has tried to champion redressing this lack of information so that we can provide parents with the right answers and actually formulate the right questions,” he added.

In the meantime, this leading expert on mitochondria and human health told this stellar committee of vaccine experts: “I really hope you will take the initiative to give us the facts so that we can either make the right decisions -- or reassure the public.”

But for now, he said, “I stand as someone who sees patients regularly and runs a diagnostics lab, and when they ask me about vaccinations, I have a hard time giving them a straightforward answer.”

There wasn't a person in the room who did not applaud, myself included.