



vaccination on May 24, 1977,<sup>1</sup> she began to sleep for extended periods of time, became difficult to arouse, was disinterested in her surroundings, and showed a general lack of response to environmental stimuli, leading, two to three weeks later, to her slumping over. Petitioners alleged that Jennifer suffered a vaccine Table injury. Pet. at ¶¶ 2, 5, 8, and 18.

In her initial hospitalization, Jennifer was diagnosed with a central nervous system (CNS) demyelinating disease which was progressive.<sup>2</sup> Pet. at ¶ 11. Jennifer died on April 25, 1992 from a hemorrhage (exsanguination) after her parents noticed blood in her tracheostomy tube. Her mother had suctioned her tube earlier and her father had lifted her into her wheelchair. P. Ex. S (Mr. Lawson's affidavit), third page, dated September 7, 1995; P. Ex. U (Declaration of Dr. Laila Avetta, dated July 25, 1995).

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<sup>1</sup> Mrs. Lawson informed personnel at the Regional Comprehensive Rehabilitation Center for Children and Youth on September 3, 1980 that Jennifer received her first DPT on January 8, 1977, her second DPT on March 29, 1977, her third DPT on April 24, 1977 (not May 24, 1977 as in the petition), and her booster on June 30, 1978. Med. recs. at Ex. E, p. 27. There is a medical bill submitted listing a charge for Jennifer's DPT on May 24, 1977. P. Ex. P, filed May 30, 1995. There is also a vaccination record listing the dates of DPT vaccination in 1977 as January 8, March 29, and May 24 (with the "5" for "May" obviously overwritten). P. Ex. V, filed September 11, 1995. In Mrs. Lawson's baby book, she writes that Jennifer received her third DPT on May 24, 1977, and in her notation for June 24, 1977, states that for three to four weeks (which would put onset at the same day of the vaccination or a week later), Jennifer slept a lot and did not play as she used to or lift her head or sit up. P. Addendum to Ex. T, filed September 28, 1995.

<sup>2</sup> Dr. Vera S. Byers, petitioners' expert, diagnosed Jennifer as suffering from an autoimmune demyelinating disorder which her first three DPT vaccinations caused or substantially contributed to and which her booster vaccination significantly aggravated. P. Ex. 1, filed November 12, 1998, p. 1. Dr. Byers views the onset of Jennifer's autoimmune demyelinating disorder to be 18 days after her third DPT. *Id.* at p. 2. Dr. Byers, in a letter dated May 11, 1999, states that if Jennifer's symptoms began the same day as the vaccination, causation is possible but not probable. P. Ex. 11. For the sake of analyzing petitioners' evidence, the undersigned assumes the date of vaccination to be May 24, 1977.

Subsequently, petitioners changed their allegation. They alleged that Jennifer suffered a causation-in-fact injury, i.e., an autoimmune disease, and not a Table injury, and that this injury led to her death. Respondent denies that DPT caused in fact Jennifer's injury or death.

On May 28, 1999 (reissued for publication on June 11, 1999), the undersigned issued a Decision dismissing this case on the ground that, assuming Jennifer had a vaccine injury, her death was not a sequela of it. On November 17, 1999, the Honorable James T. Turner issued an Opinion and Order remanding the case to the undersigned to determine if petitioners have proven a Table injury or, if not, whether they have proven that DPT caused in fact Jennifer's subsequent mental retardation.

Since petitioners withdrew their Table injury allegation, this Decision on Remand is concerned solely with whether DPT caused in fact Jennifer's illness. To determine the answer to that question, the undersigned held a hearing on January 7, 2000. Testifying for petitioners was Dr. Vera S. Byers, an immunologist. Testifying for respondent was Dr. Max Wiznitzer, a pediatric neurologist.

## **FACTS**

Jennifer was born on October 23, 1976. Med. recs. at Ex. A (petitioners did not paginate their pages in this part of their submission). Jennifer's first hospitalization was on July 11, 1977 at the Children's Hospital of Pittsburgh where she stayed until July 15, 1977. Id. Mrs. Lawson gave a history that about four weeks prior to admission (which would be about June 11, 1977, or two and one-half weeks post-vaccination), Jennifer fell over while sitting in a chair, bruising her head. Id. During the ensuing weeks, she was unable to hold her head upright as before and lost her ability to roll over and grasp objects. Id.

Dr. M. Diamond, the senior admitting resident (SAR) noted on July 11, 1977 that Mrs. Lawson related that Jennifer was fine until two to three weeks previously (mid- to late-June 1977) when Mrs. Lawson noted that Jennifer had difficulty sitting. Mrs. Lawson noticed initial unsteadiness, poor head control, poor grasp, and progressive decrease in movements, with no sitting up. Two to three weeks prior to this episode, Mrs. Lawson noted Jennifer had an upper respiratory infection (URI) with congestion, lethargy, and poor appetite, but no fever. She also fell and bruised her forehead in late May. She had been on Colace for two weeks for constipation. She also had some congestion and cough for two weeks. Jennifer did not have any personality changes, but she does not coo. Med. recs. at Ex. N, p. 5.

Mr. and Mrs. Lawson gave a further history on July 11, 1977 to Alexander Pins (or Pons) that, approximately four weeks prior to admission (about mid-June 1977), Jennifer fell over while sitting in a chair, bruising her head. During the ensuing weeks, they noticed that the child was unable to hold her head upright as she had previously, and that she lost her ability to roll over in bed and grasp objects. At the same time, Jennifer was eating and sleeping well, but with some constipation with pellet-like bowel movements. She was treated with Colace for two weeks. Mr. and Mrs. Lawson otherwise noted no associated findings. Jennifer has generally been in excellent health, but with a cold, cough, rhinitis, decreased sleep, and poor appetite without fever for approximately two weeks prior to the onset of her present problem. She had received three DPT and OPV vaccinations. Med. recs. at Ex. N, p. 7.

On examination, Jennifer was irritable, but in no acute distress. Med. recs. at Ex. N, p. 8. She was active and alert, but with poor control of her head. She had decreased upper extremity tone and decreased strength of her extremities with a weak grasp. Med. recs. at Ex. N, p. 9. A notation

from Dr. Rosenblum was this was most likely a metabolic degenerative disease of the CNS. Med. recs. at Ex. N, p. 10.

A skull x-ray dated July 11, 1977 was normal with no evidence of increased intracranial pressure, hydrocephalus, or microcephaly. Med. recs. at Ex. N, p. 27. An EEG done on July 13, 1977 was normal. Med. recs. at Ex. N, p. 28.

Jennifer was admitted for a second time to Children's Hospital of Pittsburgh from July 17 to 19, 1977. Med. recs. at Ex. N, p. 42. The Lawsons were informed that Jennifer had progressive neurological disease and the prognosis was not very good. Id. A CT scan done on July 18, 1977 showed very mildly enlarged lateral ventricles, and areas of diminished density bilaterally in the white matter of the frontal lobes and anterior parietal lobes. The interpretation of the CT stated its finding may be seen with any of the dysmyelinating diseases of the white matter of the brain. Med. recs. at Ex. N, p. 40. Jennifer did not have seizure activity.

On September 3, 1980, at the Regional Comprehensive Rehabilitation Center for Children and Youth, Mrs. Lawson stated that Jennifer was not as active in utero as her other two pregnancies were. Med. recs. at Ex. E, p. 26. Jennifer started rolling over at about four months, sat up alone at six months, and scooted on a tile floor in a walker. Med. recs. at Ex. E, p. 27. She fell from a bed but was not seriously injured. Id. About four weeks later, Jennifer developed a severe URI manifested by nasal congestion and poor appetite but no significant fever. Id. When she seemed to recover from this, she lost all motor skills, such as her ability to sit up and roll over, and she had no significant interest in her environment. Id.

Jennifer was profoundly mentally retarded and non-ambulatory. She needed and used a tracheostomy tube. Med. recs. at Ex. I. When she hemorrhaged on April 25, 1992, she was brought

to Citizens General Hospital at 9:30 p.m., which diagnosed cardiac arrest secondary to massive hemorrhage. *Id.* Jennifer was intubated and large amounts of blood were suctioned from her tube. *Id.* Jennifer's death certificate states exsanguination due to rupture of a large blood vessel, due to a tracheostomy and radical stenosis (narrowing). Med. recs. at Ex. H. There was no autopsy.

### **TESTIMONY**

Dr. Vera S. Byers testified for petitioners. Tr. at 14. She is board-certified in internal medicine, but did not take her boards in allergy and immunology. Tr. at 15. However, she practices allergy and immunology. *Id.* She spends eighty percent of her time as a consultant for pharmaceutical companies, performing clinical trials. Tr. at 22. For the last two years, she has been working on a drug for rheumatoid arthritis patients called Embrol for the Immunex Corporation. Tr. at 20. She does not have a hospital-based practice and does not see patients with vaccine injuries. Tr. at 18 & 20. She has been an expert witness for large populations exposed to toxic substances who sue corporations. Tr. at 20. She does not see infants as patients. Tr. at 21. She has not treated infants with demyelinating diseases. *Id.* Thirty percent of her patients are private and she sees the rest for litigative purposes. Tr. at 23-4. Dr. Byers views herself as a clinical researcher. Tr. at 24.

Dr. Byers thinks vaccine injuries to the brain are progressive, not static. Tr. at 32. She would refer to a neurologist someone who came to her with a demyelinating disease. Tr. at 33. She views Jennifer as having had a demyelinating autoimmune disease which was encephalomyelitis. Tr. at 39. The memory cells which the vaccine created in Jennifer reacted against the myelin in her brain. Tr. at 40. The antigen is probably myelin basic protein (MBP), but might be others as well, based on animal models of EAE (experimental allergic encephalomyelitis). *Id.*

Dr. Byers admitted that the only diagnosis we really know in Jennifer's medical records is a demyelinating disease, so we should stick with that and not call it either encephalopathy or encephalitis. Tr. at 47-48. In Dr. Byers' opinion, when DPT cleared from Jennifer in a day, she continued to have antigens which produced more memory cells. Tr. at 49-50. Jennifer had symptoms of sleepiness and disinterest (according to the Lawsons) on the day of vaccination which Dr. Byers said was related to the demyelinating illness. Tr. at 48. Her autoimmune disease was triggered on the date of her vaccination. Tr. at 50-51. However, her immediate symptoms, such as somnolence, are not classic immune symptoms like hives. Tr. at 51. Dr. Byers called the symptoms immediately after the vaccination a prodrome to her demyelinating illness. Tr. at 54. To her, Jennifer had a multiple sclerosis (MS)-like illness. Tr. at 56.

Either pertussis or tetanus could have caused the autoimmune demyelination. Tr. at 60. She admitted, however, that in humans, there is no indication that pertussis causes demyelinating diseases or MS (although there is some indication for tetanus). Tr. at 61. Dr. Byers thinks that pertussis or tetanus toxoid caused Jennifer's demyelinating illness by inducing lymphocytes into the spleen and lymph nodes where they move into the CNS. Tr. at 69-70. They develop adhesion models on their surfaces and "spalt" down on the endothelium. Tr. at 70. The immune system is outside the CNS. Tr. at 71.

Dr. Byers bases her opinion that DPT is the cause of Jennifer's demyelinating disease on the following: (1) there was a temporal relationship to DPT; she developed neurological symptoms within the appropriate time to pool lymphocytes; (2) at least two components of DPT are related to building of MBP T cells in animals and humans; and (3) EAE is the model for MS, and is a more reasonable model for demyelinating diseases. Tr. at 72-3.

Dr. Byers testified that Jennifer needed a tracheostomy because of her demyelinating disorder. Tr. at 73. Her death on April 25, 1992 due to exsanguination was related to her demyelinating disorder. Tr. at 73-4. Jennifer had difficulty breathing because she was immobile. Tr. at 74. Repeated pneumonia causes scarring which worsens breathing. Tr. at 74-5. The tracheostomy tube stretches out the trachea because it fills it up, and thus introduces scarring. Tr. at 75. It is only a matter of time before the trachea is perforated. *Id.* There was no autopsy and no evidence in the records of tracheal scarring. Tr. at 77.

Dr. Byers stated that her opinion on causation is based on experimental and clinical immunology and the solid literature on animal models of EAE. Tr. at 79. Tetanus toxoid can be a molecular mimic of MBP. *Id.* We do not know that Jennifer had a virus when she received her DPT. Tr. at 80-1. She had a mild URI at the time of the DPT. Tr. at 81. MBP is the principal ingredient (antigen) in causing autoimmune disease. Tr. at 82. There are no data on whether pertussis causes autoimmune demyelination in people. Tr. at 88. That DPT causes demyelinating disease has never been tested using accepted scientific methods. Tr. at 89-90. There is also no epidemiological study relating DPT to demyelinating disease. *Id.* Byers has never read an anecdotal report relating DPT to demyelinating disease. Tr. at 90.

Dr. Max Wiznitzer, a board-certified pediatric neurologist, testified for respondent. Tr. at 105-7. He has been in practice for fifteen years and sees patients five to six ½-days per week. Tr. at 107. He teaches adult and pediatric neurology and psychiatry to medical students and residents. Tr. at 108. Ninety percent of his patients are under 21 years of age. *Id.* He has patients like Jennifer Lawson. *Id.*

Jennifer was doing well until she was 7 ½ to 8 months old when she developed a downward neuropathy. Tr. at 109. She had an upper motor neuron disease. *Id.* She had stiff reflexes and developed optic atrophy. *Id.* She had problems feeding and developed spastic quadriplegia. *Id.*

Jennifer had a preceding illness two weeks before the onset of her neuropathy, which was a URI. *Id.* A CT scan of the head showed abnormality of the white matter. Tr. at 110. That she had a history of a preexisting URI indicates that she may have developed acute disseminating encephalomyelitis (ADEM) which is associated with preexisting viral illnesses. *Id.* She could have had dysmyelination, meaning the myelin was never right to start with and then began to fall apart. Tr. at 110-11. Enzymes are involved in the processing of myelin. Tr. at 111. Inborn errors of metabolism and insults to the brain (such as anoxia) can damage the white matter. Tr. at 112-13.

Dr. Wiznitzer could not tell if Jennifer had a demyelinating or dysmyelinating disorder. Tr. at 114. He knows only that she had a white matter disorder. Tr. at 115. This means she had damaged myelin or damaged nerves. *Id.* The contemporaneous medical records state that she was doing well until four weeks after receiving DPT vaccination. Tr. at 116. Jennifer did not have a DPT encephalopathy beforehand. Tr. at 117. She was growing and feeding well, gaining weight, and was not lethargic. Tr. at 118. If Jennifer had had an encephalopathy, he would have expected weight loss. *Id.* However, the medical records from the end of June to July 11th show she was not feeding well. *Id.* Dr. Wiznitzer cannot say if she had an autoimmune disease. *Id.*

Dr. Wiznitzer has seen a lot of ADEM patients. Tr. at 119. They are acutely ill with single monophasic illness, and show good recovery. *Id.* Jennifer did not get better and had progressive optic atrophy. *Id.* He testified that EAE is not a good model for Jennifer's illness. Tr. at 119-20. Jennifer did not have encephalitis, which is an inflammatory process of the brain and has markers

like pus cells in the cerebrospinal fluid (CSF) and an increase in the protein count. Tr. at 121-22. Jennifer's CSF was benign. Tr. at 121. Encephalitis also is characterized by an abrupt change in mental status. Tr. at 122. A person with encephalitis does not sit around for weeks. *Id.* They frequently have seizures and abnormal EEGs. *Id.* Jennifer's EEG was normal. *Id.*

ADEM is a catchall term for a postinfectious process. Tr. at 123. ADEM involves white matter. Tr. at 124. Acute encephalitis involves gray matter. *Id.* Dr. Wiznitzer testified that a vaccine injury to the brain should be static. *Id.* Jennifer did not have a vaccine reaction because: (1) it was progressive, and (2) DPT does not cause white matter disorders. Tr. at 124-25. This is based on the medical literature and common knowledge in the field. Tr. at 125. Dr. Wiznitzer stated that demyelinating diseases are not encephalitis. *Id.*

Jennifer had an abnormality of the white matter, not an inflammatory process. Tr. at 126. In Dr. Wiznitzer's opinion, the cause of Jennifer's white matter disease was either an inborn error of metabolism or ADEM caused by the preceding URI. Tr. at 128. In 1977, when these events occurred, doctors did not know as much about inborn errors of metabolism and diagnostic aids were limited. *Id.*

Dr. Wiznitzer opined that Dr. Byers' theory was speculative. Tr. at 129. He rejects her theory because: (1) a temporal relationship does not equal a causal relationship; (2) there is no human description of the entity Dr. Byers described; (3) animal models, though valid, are not description of what happened to Jennifer and what Jennifer received is not what is given to animals to make them sick; and (4) diseases may relate to more factors than animal models are created to replicate such as that there seems to be a relationship between latitude and MS (the more northerly one goes, the more MS one sees). Tr. at 129-30.

Dr. Wiznitzer stated that there is no proof that Jennifer had ADEM. Tr. at 132. We cannot say that MBP was involved because we do not know what was going on in Jennifer's case. *Id.* An intramuscular injection is absorbed more slowly than the animal model procedure. Tr. at 133-34. No MBP was administered to Jennifer, thus no adjuvant. Tr. at 134. She had a URI two weeks before hospital admission and had been in excellent health beforehand, according to the medical records. Tr. at 135.

There is a progressive nature to Jennifer's illness, unlike ADEM which is monophasic. Tr. at 139. Jennifer did not have ADEM. Tr. at 140. But she could have had a variant of ADEM. *Id.* Inborn errors of metabolism can be triggered by viral illnesses. *Id.* White matter disorders are encephalopathy but are not necessarily progressive. Tr. at 142. The term "degenerative disease" is like an inborn error of metabolism. Tr. at 142-43. Dr. Wiznitzer has several hundred patients with white matter disorders. Tr. at 143. He has dozens of infant patients with progressive white matter disorders. Tr. at 143-44. In 75% of the cases, he knows the cause. Tr. at 145. In 1977, he knew the cause in only 50% of the cases. Tr. at 145-46.

Dr. Wiznitzer treats patients with autoimmune diseases, e.g., ADEM, GBS, MS, and MS variants. Tr. at 146-47. The MS and MS variants patients have a remitting and relapsing course and are sicker much faster than Jennifer was. Tr. at 147-48. There are no tests to prove that DPT causes white matter disease. Tr. at 149. Tetanus vaccine has been related to GBS. Tr. at 151.

In 1977, "demyelinating disease" was anything that caused a disorder of the white matter. Tr. at 152. The doctors then tested for some inborn errors of metabolism, but not all of them. Tr. at 153. Dr. Wiznitzer views Dr. Byers' opinion as pure speculation with no basis in clinical reality. Tr. at 154. The timing of clinical symptoms depends on the severity of the enzyme defect. Tr. at

156-57. These disorders can be autosomal recessive (both parents pass on the gene to the child) or from mitochondrial DNA (from the mother). Tr at 158-59. A neurogenerative disorder is due to an inborn error of metabolism. Tr. at 159. Jennifer's doctors did not look for disorders of energy metabolism and of amino acid metabolism. Tr. at 162-63. Dr. Wiznitzer knows Jennifer's doctors. Tr. at 163. They did what was appropriate in 1977 with their limited knowledge base and limited armamentarium. *Id.* Dr. Wiznitzer cannot say one way or the other if Jennifer had ADEM. Tr. at 165. The progression of her disorder is against a diagnosis of ADEM and a true autoimmune disorder, and more toward a diagnosis of inborn error of metabolism. Tr. at 167-68.

Dr. Wiznitzer does not know of any evidence or data that DPT causes CNS demyelinating disorders. Tr. at 180. Dr. Wiznitzer is a medical reviewer for the journals *Neurology*, *Lancet*, and, in the past, *Annals of Neurology*. Tr. at 182.

## **DISCUSSION**

Since petitioners chose not to prove a Table injury in this case, they have the burden of proving that DPT caused in fact Jennifer's condition. To satisfy their burden of proving causation in fact, petitioners must offer "proof of a logical sequence of cause and effect showing that the vaccination was the reason for the injury. A reputable medical or scientific explanation must support this logical sequence of cause and effect." Grant v. Secretary, HHS, 956 F.2d 1144, 1148 (Fed. Cir. 1992). Agarwsal v. Secretary, HHS, 33 Fed. Cl. 482, 487 (1995); see also Knudsen v. Secretary, HHS, 35 F.3d 543, 548 (Fed. Cir. 1994); Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

Without more, "evidence showing an absence of other causes does not meet petitioners' affirmative duty to show actual or legal causation." Grant, supra, 956 F.2d at 1149.

Petitioners must not only show that but for DPT vaccine, Jennifer would not have had the injury, but also that the vaccine was a substantial factor in bringing about her injury. Shyface v. Secretary, HHS, 165 F.3d 1344 (Fed. Cir. 1999).

Dr. Byers, although she has excellent credentials as an immunological researcher for pharmaceutical companies, seems totally unfamiliar with pediatric neurological diseases. Her testimony that Jennifer had an MS-like disease or encephalitis is not credible. Jennifer's illness did not wax and wane (characteristic of MS) and she was not acutely ill with inflammatory cells in her brain. Dr. Byers' theory of relating EAE, the animal model for MS, to Jennifer is extraordinary considering the absence of MS symptoms in Jennifer. Her reliance on the parents' affidavits that Jennifer was ill from the date of the vaccination is seemingly irrelevant since she views those symptoms of lethargy and disinterest as a prodrome, rather than the onset of Jennifer's putative autoimmune disease.

The court would note, however, that the multiple histories that Jennifer's parents gave in the hospital show that Jennifer was in excellent health until two weeks prior to admission, the time before which she was growing and gaining weight. Dr. Wiznitzer astutely noted that her URI infection, which may have indeed been the cause of her white matter disorder, occurred prior to the onset of her neurological symptoms. Although petitioners' theory of causation does not rely on the symptoms that Dr. Byers terms a prodrome (lethargy and disinterest), the undersigned does not believe that petitioners' affidavits for the purpose of this litigation are more credible than the histories they gave when Jennifer became ill.

Well-established case law holds that information in contemporary medical records is more believable than that produced years later at trial. United States v. United States Gypsum Co., 333

U.S. 364, 396 (1948); Burns v. Secretary, HHS, 3 F.3d 415 (Fed. Cir. 1993); Ware v. Secretary, HHS, 28 Fed. Cl. 716, 719 (1993); Estate of Arrowood v. Secretary, HHS, 28 Fed. Cl. 453 (1993); Murphy v. Secretary, HHS, 23 Cl. Ct. 726, 733 (1991), aff'd, 968 F.2d 1226 (Fed. Cir.), cert. denied sub nom. Murphy v. Sullivan, 113 S. Ct. 263 (1992); Montgomery Coca-Cola Bottling Co. v. United States, 615 F.2d 1318, 1328 (1980). Contemporaneous medical records are considered trustworthy because they contain information necessary to make diagnoses and determine appropriate treatment:

Medical records, in general, warrant consideration as trustworthy evidence. The records contain information supplied to or by health professionals to facilitate diagnosis and treatment of medical conditions. With proper treatment hanging in the balance, accuracy has an extra premium. These records are also generally contemporaneous to the medical events.

Cucuras v. Secretary, HHS, 993 F.2d 1525, 1528 (Fed. Cir. 1993).

Dr. Wiznitzer has the experience and the credentials that Dr. Byers lacks. He is a pediatric neurologist who treats patients like Jennifer, teaches medical students and residents, and is a reviewer for peer-review neurologic journals. He was practicing medicine in 1977 when Jennifer became ill and is totally familiar with the diagnostic limitations at that time. The court believes his testimony is far more credible than Dr. Byers when Dr. Wiznitzer denied that Jennifer had any illness that could be similar to EAE, whether encephalitis or encephalomyelitis. Although he was not sure if Jennifer had ADEM or an inborn error of metabolism, two possible causes of white matter disease, it is not respondent, but petitioners, who have the burden of proof here.

Dr. Byers, to this court, was wrong when she stated that vaccine reactions in the brain result in progressive, rather than static, disease. She was also wrong when she said that DPT leads to CNS demyelinating illness. Her testimony does not make sense neurologically. Frankly, it does not make sense immunologically either, as applied to the facts of this case, even though immunology (not

neurology) is her specialty, albeit she practices it either as a researcher for pharmaceutical companies or as an expert witness in toxic tort cases. There is no proof that DPT vaccine contains MBP, presumably the protein that Jennifer's body would have to be reacting against in order to turn around and attack her brain cells. It is obvious that Jennifer's symptoms were progressive and manifested over time. There was nothing acute about them. The undersigned has yet to decide in favor of petitioners when faced with a chronic panoply of symptoms with no acute phase. That the onset of Jennifer's symptoms occurred weeks after her receipt of DPT vaccine may fit well into a theory of autoimmune reaction, if there were any basis for it except temporality, but it certainly does not suit any logical sequence of cause and effect and is not based on a reputable medical opinion since there is no credible basis for it. Dr. Byers created a theory and then tailored the facts to suit it.

Jennifer did not have an autoimmune reaction. She did not have encephalitis. She did not have encephalomyelitis (which would have involved the spine). She had a disease of the white matter of her brain which was progressive, manifesting itself ultimately in quadriplegia, difficulty feeding, and optic atrophy. Her tragic course led to tracheal exsanguination, and her death. The sadness of her situation and that of her parents does not, however, obviate the need for credible proof of causation.

Since the undersigned does not find that petitioners have satisfied their burden of proving that DPT caused in fact Jennifer's illness, whether or not her death is vaccine-related is moot. The undersigned recommends to the Honorable James T. Turner that he issue an order dismissing this case.

## **CONCLUSION**

The undersigned recommends to the Honorable James T. Turner that he dismiss this case for failure to prove a vaccine injury.

Dated: \_\_\_\_\_

Millman

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Laura D.

Special Master