OFFICE OF THE SPECIAL MASTERS

No. 94-770V

(Filed: November 3, 1998)

* *		
JUSTIN JAMES ISOM, a Minor, and MARC and JEANNE ISOM as Guardians Ad Litem for JUSTIN JAMES ISOM,	*	
Petitioners,	*	**TO BE PUBLISHED**
v.	*	
SECRETARY OF HEALTH AND HUMAN SERVICES,	*	
Respondent.	*	
* *		

Don Petersen, Esq., Provo, Utah, for petitioners.

David Terzian, Esq., United States Department of Justice, Washington, D.C., for respondent.

ENTITLEMENT DECISION

ABELL, Special Master:

On 21 October 1994, petitioners filed a claim under the National Childhood Vaccine Injury Compensation Act (Vaccine Act or Act)[(1)] for the alleged vaccine-related injuries of their minor son, Justin Isom. Petitioners claim that three diphtheria-pertussis-tetanus (DPT) vaccines caused Justin's Evans Syndrome and eventual death.

On 22 February 1995, respondent filed a report concluding that petitioners are not entitled to compensation under the Act. On 28 May 1998, the court conducted an evidentiary hearing in Washington, D.C. Petitioners presented the testimony of Jeanne Isom and Dr. Denis R. Miller. At the conclusion of Dr. Miller's testimony, the respondent made a motion to dismiss the case because

petitioners failed to offer a reliable scientific theory which proved that Justin's Evans Syndrome was caused-in-fact by the DPT vaccinations. The motion to dismiss the case was granted in a bench ruling. The court hereby affirms that holding and writes this decision to enunciate upon the holding of the court.

I. FACTS[(2)]

Justin was born on 25 May 1991 and appeared to be healthy and completely normal. Tr. at 10; Stip. Facts. at 1 (filed 6 May 1998). However, there is a family history of autoimmune disease. Tr. at 10. Jeanne Isom's sister suffered from a bout of juvenile rheumatoid arthritis when she was an early teenager. Tr. at 9. On 22 October 1991, Justin received DPT, polio, and HIB vaccinations at the Bingham County Health Department in Idaho. Tr. at 11-12. On 5 November 1991, Justin was in a car seat placed on a kitchen counter when he tipped over and fell out of the car seat and landed on his head. Tr. at 12. He only had a small bruise and did not require medical attention. Tr. at 12. On Sunday, 10 November 1991, Jeanne went to get Justin out of bed to get him ready for church. Tr. at 12. His head was in a pool of blood. The sheets were all bloody and there was blood oozing slowly from his nose. Tr. at 12. The parents rushed Justin to Eastern Idaho Regional Medical Center in Otto Falls. Tr. at 13. The hospital performed a CAT scan, but found no intracranial fractures, so Justin was sent home. Tr. at 13. On Tuesday, 12 November 1991, Justin's parents noticed that he had developed large bruises on his legs. Tr. at 14. Justin was taken to the hospital and was diagnosed with autoimmune hemolytic anemia (AIHA) and autoimmune idiopathic thrombocytopenic purpura (ITP). Tr. at 14; Stip. Facts at 1. The parents sought a second opinion the next day from Dr. LeChault and he diagnosed Justin with leukemia, so Justin was rushed to Primary Children's Hospital in Salt Lake City. Tr. at 14. The hospital performed a bone marrow aspiration and this test eliminated leukemia as a possible illness.

Justin was then treated for AIHA and ITP with transfusions and steroids. Tr. at 15. Between November 1991 and February 1992, Justin's treatments were continued for his symptoms. Tr. at 15. On 19 February 1992, Justin was diagnosed with Evans Syndrome. Stip. Facts at 2. On 28 February 1992, Justin received DPT, polio and HIB vaccinations. Tr. at 15. Through July 1992, Justin was treated for low platelet counts and hematocrit levels. Tr. at 16. Justin's health gradually got worse. Tr. at 16. Justin underwent a splenectomy on 2 July 1992. Tr. at 16. The splenectomy caused Justin's platelet count to increase for only four days. Tr. at 16. Justin continued to suffer low platelet counts and hematocrit levels. Stip. Facts at 2. Justin had to start wearing a helmet to protect him from any bumping and bruising. Tr. at 16. The doctors told the parents that any bump on the corner of a table could cause a fatal bleed if it happened during a low platelet level. Tr. at 17. On 5 October 1992, Justin received DPT and HIB vaccinations. Tr. at 17. Justin began to bleed out of his skin. Tr. at 17. He lost sight in one eye because the eyelid had swollen from blood collecting underneath the skin. Tr. at 17. He then began to bleed out his mouth, nose and stool. Tr. at 17. When his parents picked him up, their hands would cause bruising and leave hand prints on his skin. Tr. at 18. The hospital had to insert a semi-permanent pick line in his arm to administer the steroids because Justin's veins were collapsing. Tr. at 17-18. The line became infected and Justin got septic and then pneumonia. Tr. at 18. This caused a high fever, and on 20 October 1992, Justin suffered a grand mal seizure and intracranial bruising. Tr. at 18. Justin was stabilized and was flown to New York for more aggressive treatment. Tr. at 19. He was started on chemotherapies and intravenous steroids. Tr. at 19.

For the next three years, Justin's condition followed a cyclical pattern. He would recover from his injuries for a short period of time, but then his platelet level would fall and he would resume treatments to stop him from bleeding to death. Tr. at 22. Justin visited the hospital eighty-two times during those

three years. Tr. at 22. By Easter of 1995, Justin was losing blood faster than it could be replaced and all of Justin's medical options had expired, so his doctors and parents decided to perform an experimental bone marrow transplant. Tr. at 23. Unfortunately, no family member was a bone marrow match and no unrelated person was a match. Tr. at 95. Fortunately, Mrs. Isom was pregnant with a daughter. The doctors performed *in utero* tests and determined that Justin's sister was a donor match. Tr. at 23. The doctors decided to be more aggressive in the platelet treatment and the platelet transfusions to keep Justin from having any more serious bleeds in hopes of keeping him alive until his sister's birth. Tr. at 23-24. His sister was born on 22 December 1995, and Justin received radiation and chemotherapy for approximately ten days. On 13 January 1996 he was given a bone marrow transplant from his sister's umbilical cord blood. Tr. at 24. The transplant caused graft versus host disease and Justin almost died. Tr. at 24, 46. He spent the next one-hundred days in an isolation room. Tr. at 24. He went home in May of 1996.

From May 1996 to July 1996, Justin received immunosuppressive therapy and from July to August 1996 he received total parenteral nutrition. Tr. at 24; Stip. Facts at 3. Justin continued to have a lot of diarrhea and weight loss and was treated with Propulsid. Tr. at 24. He deteriorated rapidly in late October. Justin died on 28 October 1996.

II. FACT WITNESS

In this case, only Jeanne Isom was called as a fact witness. Her testimony is summarized *supra* in the Facts section. It was unnecessary to have other fact witnesses inasmuch as the records speak for themselves, they are not at issue, and additional fact testimony would be redundant. The dispositive issue in this case is not dependent upon the facts of the case. Tr. at 6, 8.

III. EXPERT WITNESS

A. Dr. Denis R. Miller[(3)]

Dr. Denis R. Miller testified on behalf of the petitioners as an expert witness. He is a pediatric hematologist oncologist. Tr. at 27. He is board certified in hematology oncology. Tr. at 27. He is the author of a textbook called *Blood Diseases of Infancy and Childhood*, which is now in its seventh edition. Tr. at 28. He is a clinical professor of pediatrics at the Robert Wood Johnson School of Medicine in New Brunswick and a research associate in the Cancer Institute of New Jersey. Tr. at 29.

Dr. Miller testified that Justin had Evans Syndrome. Tr. at 39. Evans Syndrome is an autoimmune disease consisting of two conditions: (1) autoimmune hemolytic anemia (AIHA), and (2) autoimmune thrombocytopenic purpura (ITP). Tr. at 33. Autoimmune hemolytic anemia is associated with the

increased destruction of red blood cells. Tr. at 34. Autoimmune thrombocytopenic purpura is associated with either the decreased production of platelets or the increased destruction of platelets, or a combination of both. Tr. at 33. Evans Syndrome results in the person's antibodies being directed against his own red blood cells and platelets and is usually treated with immunosuppressive therapy and is relatively uncommon in both the pediatric and adult populations. Tr. at 33.

According to Dr. Miller, the effect of Evans Syndrome is a reduction in the growth and oxygenation of tissues. Tr. at 41. A second effect is that the child can experience life-threatening bleeding into the brain or gastro-intestinal tract. Tr. at 41.

Justin did not respond to any type of immunosuppressive therapy. Tr. at 41. This is unusual. Tr. at 41. In addition, his splenectomy did not have any lasting benefit. Tr. at 42. Also, the absence of a spleen put him at risk of developing a life-threatening bacterial infection because the spleen is one of the major organs that can remove fatal bacteria from his body. Tr. at 42-43. Since he was also on immunosuppressive therapy to suppress his own immune system, Justin had an increased likelihood of developing a fatal illness. Tr. at 43.

Dr. Miller opined that patients who develop AIHA may have some genetic susceptibility to its development (Justin's aunt had juvenile rheumatoid arthritis). Tr. at 48. Something happens that triggers the B cells in the immune system to develop antibodies that are directed against healthy cell tissue. Tr. at 49. The host lacks the ability to regulate the production of the antibodies and the result is the host destroys his own red blood cells. Tr. at 49.

Dr. Miller believes that children who develop ITP have some preceding infectious disease that stimulates the immune system to make antibodies against the virus, but also against the host's platelets. Tr. at 51-52. The disease requires a trigger - some exogenous antigen or triggering mechanism. Tr. at 56. Justin did not have any childhood illnesses prior to his DPT vaccination. Tr. at 52-53.

Dr. Miller hypothesized that Justin's DPT vaccination was the trigger that started his AIHA and ITP. Tr. at 55, 64, 75. The vaccination caused a cascade of events. Tr. at 55. The DPT contains a viral antigen that stimulates the activation of monocytes and macrophages and dengridic cells. Tr. at 55. These then activate T cells, which then activate B cells which are programmed to produce a specific antibody directed against a specific antigen. Tr. at 55. Normally, these antigens are helpful, but in Justin's case they resulted in Evans Syndrome because Justin lacked the ability to control the proliferation of the antibodies. Tr. at 55-56, 66.

On cross examination, Dr. Miller admitted that the articles he relied upon say the etiology of Evans Syndrome is speculative. Tr. at 77. None of Justin's treating physicians associated the DPT vaccination with Evans Syndrome, Tr. at 78, including a treating physician which Dr. Miller recognized as the leading expert in the field, Dr. Jim Bussel, Tr. at 30, and other treating physicians who wrote chapters in Dr. Miller's textbook. Tr. at 30.

On cross examination, Dr. Miller also admitted that there have been no scientific studies to test his hypothesis that DPT vaccination can cause Evans Syndrome. Tr. at 79. There have never been any animal model studies done to test the hypothesis. Tr. at 80. There have been no epidemiological studies performed to prove the hypothesis. Tr. at 80-81. There are no published anecdotal reports of any patients that establish a causal link between DPT vaccination and Evans Syndrome. Tr. at 81-82. Before the initiation of this case, Dr. Miller had never personally studied whether there was a causal relationship between DPT vaccination and Evans Syndrome. Tr. at 80. The Physician's Desk Reference and the package insert that comes with the DPT vaccination do not list AIHA, ITP nor Evans Syndrome as

adverse reactions to a DPT vaccination. Tr. at 86. Finally, the Institute of Medicine has never suggested there is an association between DPT and any blood disease. Tr. at 87-88.

Dr. Miller admitted that his hypothesis has not received general acceptance in the community of physicians who specialize in the care and treatment of Evans Syndrome. Tr. at 85. In fact, Dr. Miller could not name one other board certified pediatric hematologist oncologist who holds the opinion that DPT causes Evans Syndrome. Tr. at 85. In addition, he has never submitted his hypothesis about the relationship between DPT and Evans Syndrome for peer review. Tr. at 81.

Finally, even if Dr. Miller's hypothesis was scientifically tenable, in Justin's particular case, no test was done to see if the DPT caused an immune response which produced DPT antibodies. Tr. at 89-90.

IV. STATUTORY REQUIREMENTS

The Vaccine Act permits establishment of causation in one of two ways: either through the statutorily prescribed presumption of causation or by proving causation-in-fact. The Vaccine Injury Table lists specific vaccines and certain injuries or conditions that may occur as a result of a vaccine's administration. If the onset of those injuries or conditions is found to occur within a prescribed time period, a rebuttable presumption is created that the vaccine caused the condition. Section 11(c)(1)(C)(i); Section 14(a).

In the case at bar, petitioners allege that Justin's three DPT vaccinations caused his Evans Syndrome. Inasmuch as Evans Syndrome is an injury not listed in the Vaccine Table, petitioners' thesis under the Act is one of causation-in-fact.

Causation-in-fact is an acceptable thesis under the Act. Petitioner may establish entitlement to an award through traditional tort methods. Causation-in-fact cases include injuries not listed on the Table or injuries that are listed but occurred outside the temporal parameters of the Table. Entitlement in such cases is dependent upon proof by a preponderance of the evidence that the vaccine actually caused the injury.

Causation-in-fact delves directly into the continuing controversy of whether the DPT vaccine can cause permanent disorders. Thus, a petitioner's prima facie case is more difficult to establish. Not only is proof of injury necessary but petitioner also bears the burden of linking the injury directly to the vaccine. Ruling out other potential causes is an essential element but does not itself establish causation. Thus, the proffered theory of causation must not only be shown to be possible but also must be shown to have occurred in this particular case.

It should be noted that in analyzing a contention of causation-in-fact, the presumptions available under the Vaccine Injury Table are inoperative. The burden rests on the petitioner to show that the vaccination in question more likely than not caused the specific injury, *under the same standards which apply in traditional tort litigation*, in which the same "preponderance of the evidence" standard applies. *Hines v. Secretary of the HHS*, 940 F.2d 1518, 1525 (Fed. Cir. 1991); *Strother v. Secretary of the HHS*, 21 Cl. Ct. 365, 369-70 (1990), *aff'd*, 950 F.2d 731 (Fed. Cir. 1991). The preponderance of the evidence standard requires that the trier of fact "believe that the existence of a fact is more probable than its nonexistence before (he) may find in favor of the party who has the burden to persuade the (judge) of the fact's

existence." *In re Winship*, 397 U.S. 358, 371-72 (1970)(Harlan, J., concurring)(quoting F. James, *Civil Procedure* 250-51 (1965)). Mere conjecture or speculation does not meet the preponderance standard. *Snowbank Enterprises v. United States*, 6 Cl. Ct. 476, 486 (1984).

The Federal Circuit in *Grant v. Secretary of the HHS*, 956 F.2d 1144 (Fed. Cir. 1992) summarized the legal criteria required to prove causation-in-fact under the Vaccine Act. The court noted that a petitioner must:

show a medical theory causally connecting the vaccination and the injury. Causation in fact requires proof of a logical sequence of cause and effect showing the vaccination was the reason for the injury. A *reputable medical or scientific explanation* must support this logical sequence of cause and effect.

Id. at 1148 (citations omitted)(emphasis added); *see also Hines v. Secretary of the HHS*, 940 F.2d 1518, 1525 (Fed. Cir. 1991); *Strother v. Secretary of the HHS*, 21 Cl. Ct. 365, 370 (1990); *Carter v. Secretary of the HHS*, 21 Cl. Ct. 651, 654 (1990); *Novak v. United States*, 865 F.2d 718, 724 (6th Cir. 1989); *Hasler v. United States*, 718 F.2d 202, 205-06 (6th Cir. 1983). Temporal association alone is *not* sufficient. *Strother v. Secretary of the HHS*, 21 Cl. Ct. 365, 370 (1990). Moreover, in an off-Table case, where the injury or death in question is idiopathic, and no cause can be determined, the petitioner's claim must fail. *Hines v. Secretary of the HHS*, 21 Cl. Ct. 634, 650 (1990), *aff'd*, 940 F.2d 1518 (Fed. Cir. 1991).

To support a causation-in-fact allegation, petitioner's expert must do more than suggest a possible correlation based on a temporal relationship between vaccination and the injury; he must explain *how* and *why* the injury occurred. *Strother*, 21 Cl. Ct. at 370. If petitioner's expert views the temporal relationship as the "key," the claim must fail. *Thibaudeau v. Secretary of the HHS*, 24 Cl. Ct. 400, 403 (1991).

A reputable medical or scientific explanation does not simply mean, however, any theory that a medical expert is willing to espouse. In construing the Federal Rules of Evidence, the Supreme Court recently held that it is the trial judge's responsibility to ensure that "any and all scientific testimony or evidence admitted is not only relevant, but reliable." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S.Ct. 2786, 2795 (1993); *see also* Vaccine Rule 8(b)(the trier of fact is obliged to consider "all relevant, reliable evidence"). Rule 702 provides that an expert witness may testify to his "scientific, technical, or other specialized knowledge." The term "knowledge," however, "connotes more than subjective belief or unsupported speculation." *Daubert*, 113 S.Ct. at 2795. Thus, the expert's proposition must have been "derived by the scientific method." *Id.* This requires that the proponent demonstrate that there is "some objective, independent validation of the expert's methodology." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995)(Kozinski, J.), *on remand from* 113 S.Ct. 2786 (1993). Factors relevant to that determination may include, but are not limited to:

whether the theory or technique employed by the expert is generally accepted in the scientific community; whether it's been subjected to peer review and publication; whether it can be and has been tested; and whether the known potential rate of error is acceptable.

Id.; see also Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S.Ct. 2786, 2796-97 (1993). The overall touchstone is "whether the analysis undergirding the experts' testimony falls within the range of accepted standards governing how scientists conduct their research and reach their conclusions." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995).

Although the Federal Rules of Evidence do not apply in vaccine cases, the United States Court of

Federal Claims has held that "*Daubert* is useful in providing a framework for evaluating the reliability of scientific evidence." *Terran v. Secretary of HHS*, 41 Fed. Cl. 330, 336 (1998)(citing *Leary v. Secretary of HHS*, No. 90-1456V, 1994 WL 43395, at *9 (Fed.Cl.Spec.Mstr.Jan. 31, 1994)). "While the Supreme Court designed the test to determine whether evidence is relevant and reliable in the context of the Federal Rules of Evidence, it is equally capable of being used to determine whether information is relevant and reliable in the context of the Vaccine Act." *Terran*, 41 Fed. Cl. at 336.

Other prerequisites to compensation include: (1) that the injured person suffered the residual effects of a vaccine-related injury for more than six months after the administration of the vaccine, § 11(c)(1)(D)(i); (2) that the petitioner incurred in excess of $1000 in unreimbursable vaccine-related expenses, § 11(c)(1)(D)(i); (3) that the vaccine was administered in the United States, § 11(c)(1)(B)(i)(I); (4) that the petitioner did not previously collect a judgment or settlement in a prior civil action, § 11(c)(1)(E); and (5) that the action be brought by the injured person's legal representative, § 11(b)(1)(A).

V. DISCUSSION

In assessing any inconsistencies between medical records and oral testimony, the undersigned first looks to the issue of the credibility of the fact witnesses. The undersigned thoughtfully observed the demeanor, comportment and presentment of Mrs. Jeanne Isom and has concluded she is a credible witness. Tr. at 109. This is a case where the medical facts are not greatly in dispute and are not dispositive. Tr. at 6, 8.

In the case at bar, petitioners allege that Justin's DPT vaccinations caused his Evans Syndrome. Inasmuch as Evans Syndrome is an injury not listed in the Vaccine Table, petitioners' thesis under the Act is one of causation-in-fact. The analysis in this matter divides into the following three queries: (1) Did Justin suffer from Evans Syndrome? (2) Can a DPT vaccination cause Evans Syndrome? And (3), did a DPT vaccination in this case cause Justin's Evans Syndrome?

A. Diagnosis: Did Justin suffer from Evans Syndrome?

Petitioners contend that Justin suffered from Evans Syndrome. Since both the petitioners and the respondent stipulated that Justin was diagnosed with Evans Syndrome, the court will accept the stipulated facts of the parties. Stip. Facts at 2.

B. Theory of Causation: Can a DPT vaccination cause Evans Syndrome?

Having established that Justin suffered from Evans Syndrome, the next issue to be decided is whether a DPT vaccination actually caused Justin's injuries. That determination requires the court to decide whether a DPT vaccination can cause Evans Syndrome. The undersigned responds in the negative.

In the case at bar, petitioners proffered a theory of causation from Dr. Denis Miller. The court does not find, by a preponderance of the evidence, that the theory of causation proffered by petitioners meets the standards of scientific reliability enunciated in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S.Ct. 2786, 2795 (1993). Before the court discusses the *Daubert* guideposts, the court will discuss the veracity of petitioners' expert. Dr. Miller is unquestionably highly learned, highly esteemed in the scientific community, and highly qualified to opine on the causes of blood diseases and Evans Syndrome. Tr. at 101. In fact, Dr. Miller may be one of the most qualified experts the court has ever had the pleasure of hearing. He was lucid and also quite candid. Tr. at 103. The petitioners should be commended for employing Dr. Miller as their expert witness.

There are four factors listed in *Daubert* as guideposts for this court to follow to determine if a scientific theory is reliable. The four factors are (1) general acceptance in the scientific community; (2) whether it's been subjected to peer review and publication; (3) whether it can and has been tested; (4) and whether the known potential rate of error is acceptable. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 43 F.3d 1311, 1316 (9th Cir. 1995)(Kozinski, J.), *on remand from* 113 S.Ct. 2786 (1993).[(4)] In the case at bar, petitioners' theory, as explained by Dr. Miller, is that a DPT vaccination can be the trigger which initiates a cascade of events which eventually leads to Evans Syndrome.

Examined in the light of the four guideposts enumerated in *Daubert,* the court must conclude that petitioners' theory of causation is not based on reliable scientific evidence. First, petitioners' theory is not generally accepted in the scientific community of physicians who specialize in the care and treatment of Evans Syndrome, as admitted by Dr. Miller. Tr. at 85. In fact, Dr. Miller could not name one other board certified pediatric hematologist oncologist who holds the opinion that DPT causes Evans Syndrome. Tr. at 85. When appropriate, this court will accept a minority opinion in the scientific community. Tr. at 104. However, this court is reluctant to accept an opinion held by a minority of one. Tr. at 106. Second, the theory has not been subjected to peer review publication because Dr. Miller said he has never submitted his hypothesis for peer review publication. Tr. at 81. Third, the theory has not been satisfactorily tested. On cross examination, Dr. Miller admitted that there have been no scientific studies to test his hypothesis that DPT vaccination can cause Evans Syndrome. Tr. at 79. There have never been any animal model studies done to test the hypothesis. Tr. at 80. There have been no epidemiological studies performed to prove the hypothesis. Tr. at 80-81. There are no published anecdotal reports of any patients that establish a causal link between DPT vaccination and Evans Syndrome. Tr. at 81-82. Fourth, the error rate of the tests is not known at all (because of the lack of test results).

For these reasons, the undersigned concludes that the petitioners have not provided a preponderance of the evidence to support their theory that DPT vaccinations can cause Evans Syndrome.

C. Application of Theory: Did a DPT vaccination in this case cause Justin's Evans Syndrome?

Since the court found that the petitioners did not prove by a preponderance of the evidence that a DPT vaccination can cause Evans Syndrome, it is unnecessary for the court to determine the final query -- whether a DPT vaccination caused Justin's Evans Syndrome in this particular case. However, the court will enunciate a potential hurdle. In Justin's particular case, no test was done to see if the DPT caused an immune response which produced DPT antibodies. Tr. at 89-90. In short, even if the petitioners were able to prove their theory of causation, they may lack the necessary evidence to prove Justin's case fits the criteria of their theory.

VI. CONCLUSION

1. As the parents of their minor son, petitioners have the requisite capacity to bring this action. Section 11(b)(1)(A); Tr. at 109.

2. Petitioners have not previously collected an award or settlement of a civil action in connection with Justin's alleged vaccine-related injury. Section 11(c)(1)(E); Tr. at 109.

3. Justin was administered a vaccine listed in the Vaccine Injury Table. Section 11(c)(1)(B)(i)(I); Tr. at 109.

4. Said vaccine was administered in the United States. Section 11(c)(1)(B)(i)(I); Tr. at 109.

5. There is a preponderance of the evidence that Justin suffered the residual effects of his alleged injury for more than 6 months after the administration of the vaccine. Section 11(c)(1)(D)(i); Tr. at 109.

6. There is a preponderance of the evidence that petitioners incurred unreimbursable expenses due in whole or in part to such injury in an amount greater than $1,000. Section 11(c)(1)(D)(i); Tr. at 109.

7. There is not a preponderance of the evidence that Justin's DPT vaccinations caused-in-fact his Evans Syndrome.

Based on the foregoing, the undersigned finds that petitioners are not entitled to compensation in this case. In the absence of a motion for review[(5)] filed pursuant to RCFC Appendix J, the clerk of court is directed to enter judgment dismissing this case with prejudice.

IT IS SO ORDERED.

Richard B. Abell

Special Master

1. The statutory provisions governing the Vaccine Act are found at 42 U.S.C. §§ 300aa-1 to 300aa-34 (1991 & Supp. 1997). Hereinafter, for ease of citation, all references will be to the relevant subsection of 42 U.S.C. § 300aa.

2. Reference to the transcript of the 28 May 1998 evidentiary hearing will be made as "Tr. at __."

3. Dr. Miller received his A.B. from Cornell University in 1955 and his M.D. from Cornell University Medical College in 1959. He completed his internship and residency at Children's Hospital Medical Center, Boston, Massachusetts in 1962, and he was a research fellow at Harvard Medical School from 1964-1966. His *curriculum vitae* lists 77 book chapters, 157 peer-reviewed articles, and 140 abstracts to his credit.

4. These four factors come from the *Daubert* block quotation on page 7 of this decision.

5. Pursuant to Vaccine Rule 11(a), the parties can expedite entry of judgment by each party filing a notice renouncing the right to seek review.