OFFICE OF SPECIAL MASTERS

No. 01-481V

(Filed: September 8, 2006)
To be published[1]

Michael L. Bowes, Jr., by MELONY EISENHOWER, as the Parent and Natural Guardian,	*	
Petitioner,	*	Vaccine Act Entitlement; Causation-in-Fact; Multiple Vaccines Causing Transverse Myelitis
v.	*	
SECRETARY OF HEALTH AND HUMAN SERVICES,	*	
Respondent.	*	

Clifford Shoemaker, Vienna, Virginia, appeared for petitioner.

Michael Milmoe, U.S. Department of Justice, Washington, D.C., appeared for respondent.

RULING CONCERNING "ENTITLEMENT" ISSUE

HASTINGS, ***Special Master***.

This is an action in which the petitioner, Melony Eisenhower, seeks an award under the National Vaccine Injury Compensation Program (hereinafter "the Program--see 42 U.S.C. § 300aa-

[1]Because I have designated this document to be published, this document will be made available to the public unless petitioner files, within fourteen days, an objection to the disclosure of any material in this decision that would constitute "medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of privacy." See 42 U.S.C. § 300aa-12(d)(4)(B); Vaccine Rule 18(b).

10 *et seq*.[2]), on behalf of her son, Michael L. Bowes, Jr. For the reasons set forth below, I conclude that petitioner is entitled to such an award, in an amount yet to be determined.

I

THE APPLICABLE STATUTORY SCHEME AND CASE LAW

Under the National Vaccine Injury Compensation Program (hereinafter the "Program"), compensation awards are made to individuals who have suffered injuries after receiving vaccines. In general, to gain an award, a petitioner must make a number of factual demonstrations, including showings that an individual received a vaccination covered by the statute; received it in the United States; suffered a serious long-lasting injury; and has received no previous award or settlement on account of the injury. Finally--and the key question in most cases under the Program--the petitioner must also establish a *causal link* between the vaccination and the injury. In some cases, the petitioner may simply demonstrate the occurrence of what has been called a "Table Injury." That is, it may be shown that the vaccine recipient suffered an injury of the type enumerated in the "Vaccine Injury Table" corresponding to the vaccination in question, within an applicable time period from the vaccination also specified in the Table.[3] If so, the Table Injury is presumed to have been caused by the vaccination, and the petitioner is automatically entitled to compensation, unless it is affirmatively shown that the injury was caused by some factor other than the vaccination. § 300aa-13(a)(1)(A); § 300aa-11(c)(1)(C)(i); § 300aa-14(a); § 300aa-13(a)(1)(B).

In other cases, however, the vaccine recipient may have suffered an injury *not* of the type covered in the Vaccine Injury Table. In such instances, an alternative means exists to demonstrate entitlement to a Program award. That is, the petitioner may gain an award by showing that the recipient's injury was "caused-in-fact" by the vaccination in question. § 300aa-13(a)(1)(A); § 300aa-11(c)(1)(C)(ii). In such a situation, the presumptions available under the Vaccine Injury Table are inoperative. The burden is on the petitioner to introduce evidence demonstrating that, in fact, the vaccination caused the injury in question. See, e.g., *Hines v. Secretary of HHS*, 940 F. 2d 1518, 1525 (Fed. Cir. 1991); *Althen v. Secretary of HHS*, 418 F. 2d 1274, 1278 (Fed. Cir. 2005). The showing of "causation-in-fact" must satisfy the "preponderance of the evidence" standard, the same standard ordinarily used in tort litigation. § 300aa-13(a)(1)(A); see also *Hines*, 940 F. 2d at 1525; *Althen*, 418 F. 3d at 1278. Under that standard, the petitioner must show that it is "more probable than not" that the vaccination was the cause of the injury. *Althen*, 418 F. 3d at 1279. The petitioner need not show that the vaccination was the sole cause or even the predominant cause of the injury

---

[2]The applicable statutory provisions defining the Program are found at 42 U.S.C. § 300aa-10 *et seq*. (2000 ed.). Hereinafter, for ease of citation, all "§" references will be to 42 U.S.C. (2000 ed.). I will also sometimes refer to the Act of Congress that created the Program as the "Vaccine Act."

[3]The original version of the Vaccine Injury Table was contained in the statute, at § 300aa-14(a). However, the Table has been administratively amended.

or condition, but must demonstrate that the vaccination was at least a "substantial factor" in causing the condition, and was a "but for" cause. *Shyface v. Secretary of HHS*, 165 F. 3d 1344, 1352 (Fed. Cir. 1999). Thus, the petitioner must supply "proof of a logical sequence of cause and effect showing that the vaccination was the reason for the injury;" the logical sequence must be supported by "reputable medical or scientific explanation, *i.e.*, by evidence in the form of scientific studies or expert medical testimony." *Althen*, 418 F. 3d at 1278; *Grant v. Secretary of HHS*, 956 F. 2d 1144, 1148 (Fed. Cir. 1992).

The *Althen* court also provided additional discussion of the "causation-in-fact" standard, as follows:

> Concisely stated, Althen's burden is to show by preponderant evidence that the vaccine brought about her injury by providing: (1) a medical theory causally connecting the vaccination and the injury; (2) a logical sequence of cause and effect showing that the vaccination was the reason for the injury; and (3) a showing of a proximate temporal relationship between vaccination and injury. If Althen satisfies this burden, she is "entitled to recover unless the [government] shows also by a preponderance of evidence, that the injury was in fact caused by factors unrelated to the vaccine."

Althen, 418 F. 3d at 1278 (citations omitted). The *Althen* court noted that a petitioner need not necessarily supply evidence from *medical literature* supporting the petitioner's causation contention, so long as the petitioner supplies the *medical opinion* of a qualified expert. *Id*. at 1279-80. The court also indicated that, in finding causation, a Program factfinder may rely upon "circumstantial evidence," which the court found to be consistent with the "system created by Congress, in which close calls regarding causation are resolved in favor of injured claimants." *Id*. at 1280.

More recently, the Federal Circuit has addressed the causation-in-fact standard in two more rulings, *Capizzano v. Secretary of HHS*, 440 F. 3d 1317 (2006), and *Pafford v. Secretary of HHS*, 451 F. 3d 1352 (2006). Both opinions affirmed the applicability of the *Althen* test, quoted above. The *Capizzano* opinion cautioned Program factfinders against narrowly construing the second element of the *Althen* test, confirming that circumstantial evidence and medical opinion, sometimes in the form of notations of treating physicians in the vaccinee's medical records, may in a particular case be sufficient to satisfy that second element of the *Althen* test. The *Pafford* ruling, on the other hand, indicated that it is the petitioner's burden to demonstrate a defined period after vaccination in which one would expect to see the symptoms of a vaccine-caused injury of the type in question.

II

BACKGROUND FACTS, PROCEDURAL HISTORY, AND ISSUE TO BE DECIDED

A. Background facts

Michael L. Bowes, Jr., was born to the petitioner, Melony Eisenhower, on April 19, 1998. (Ex. 1, p. 50.[4]) At his first well-child exam, Michael was described as "healthy." (Ex. 1, p. 19.) He received his first set of vaccinations on June 3, 1998, without any noticeable side effects. (Ex. 1, p. 4.) He received his second set of vaccinations on August 5, 1998. (*Id*.) Both sets consisted of diphtheria-tetanus-acellular pertussis ("DTaP"), inactivated polio ("IPV"), and haemophilus influenzae type B ("HIB") vaccinations.

On August 18, 1998, according to his mother's affidavit, Michael appeared "somewhat lethargic" and "not himself." (Ex. 13, p. 1.) The next day, his mother found him to be "limp and unresponsive," and took him to the emergency room at Lock Haven Hospital. (Ex. 13, p. 1; Ex. 1, p. 49.) Michael was evaluated at Lock Haven Hospital, then transferred on that same day to the Geisinger Medical Center, for further evaluation of what appeared to be a serious neurological disorder. (Ex. 19, pp. 283, 285.) At the time of admission to the Geisinger Center, Michael had decreased use of his arms, breathing difficulties, and other symptoms. (Ex. 2, p. 1.) He was treated for "central spinal cord syndrome," which included "transverse cervicothoracic myelitis." (Ex. 19, p. 283.) Michael remained hospitalized at the Geisinger Center until September 8, 1998.

The experts who testified in this case agree that in August of 1998 Michael suffered an episode of the neurologic condition known as "acute transverse myelitis." Further, although the record seems to indicate some gradual improvement in his condition (see, *e.g.*, Ex. 1, p. 62), it also appears that Michael continues to suffer ill effects from that episode.

B. Procedural history

Petitioner filed this Program petition, *pro se*, on August 17, 2001. After taking over the case on petitioner's behalf in 2002, petitioner's counsel spent several years in seeking expert medical opinion, ultimately filing the reports of two experts, Dr. Carlo Tornatore and Dr. Joseph Bellanti. Respondent countered with the expert report of Dr. John T. Sladky. On February 9, 2006, I held an evidentiary hearing to hear the oral testimony of those experts. At the conclusion of that hearing, both counsel agreed that a post-trial briefing process would be appropriate. Petitioner's final brief in that process was filed on June 21, 2006.

---

[4]Petitioner filed Exhibits numbered 1 through 8 on March 8, 2002, and additional, sequentially-numbered exhibits on several occasions since then. Respondent filed Exhibits A and B on August 5, 2005. "Ex." references will be to those exhibits. "Tr." references will be to the pages of the transcript of the evidentiary hearing held on February 9, 2006.

C. Issue to be decided

In this case, the petitioner does not allege that Michael suffered a "Table Injury." Instead, she alleges that Michael's episode of acute transverse myelitis in August of 1998, as well as the lingering effects of that episode, were "caused-in-fact" by the vaccinations that Michael received on August 5, 1998. Accordingly, the issue for my ruling at this time is whether petitioner has successfully made that "causation-in-fact" showing. [5]

III

ANALYSIS

Based upon all the evidence of record in this case, I conclude that it is "more probable than not" that Michael's episode of acute transverse myelitis was caused by his vaccinations of August 5, 1998. The shortest summary of my reasoning in this matter is simply that I found the opinions of Drs. Bellanti and Tornatore to be more persuasive than the opinion of Dr. Sladky. A more detailed summary will follow. In the following sections of this opinion, I will first summarize the expert opinions of each party, then provide a discussion of the reasons for my conclusion.

A. Summary of the opinions of Drs. Bellanti and Tornatore

The opinions of Drs. Bellanti and Tornatore start with the fact that in August of 1998 Michael unquestionably suffered an episode of the neurologic condition known as acute transverse myelitis (hereinafter "ATM"). They note that ATM, like similar neurologic conditions, can be the result of an "autoimmune" process--*i.e.*, a process in which a person's immune system, which is designed to attack agents that invade the body, instead erroneously attacks a part of the body itself. Such an autoimmune process results from a stimulus to the person's immune system, and, of course, the vaccinations which Michael received on August 5, 1998, were *designed and intended* to stimulate his immune system. Further, the first symptoms of Michael's ATM occurred about two weeks after his vaccinations, squarely within the time period during which medical experts would expect to see the human immune system respond to an invasive agent.

Next, Drs. Ballanti and Tornatore rely on the fact that it is well accepted medically that some types of vaccinations have caused ATM in the past. They rely on the fact that there are case reports in which persons have suffered ATM after receiving the very types of vaccinations that Michael received on August 5, 1998. Finally, they rely on the fact that there appears to be no other likely cause for Michael's ATM other than his vaccinations.

---

[5]Petitioner has the burden of demonstrating the facts necessary for entitlement to an award by a "preponderance of the evidence." § 300aa-13(a)(1)(A). Under that standard, the existence of a fact must be shown to be "more probable than not." *Althen*, 438 F. 3d at 1279.

Putting these factors together, Drs. Tornatore and Bellanti each are of the opinion that, more probably than not, one of the August 5 vaccinations was the cause of Michael's ATM that surfaced later that month.

B. Summary of Dr. Sladky's opinion

Dr. Sladky agrees that Michael suffered an episode of ATM. He agrees that vaccinations can, on some occasions cause neurologic complications. He agrees that certain vaccines have caused episodes of ATM in the past. He does not dispute that it is *possible* that Michael's ATM was caused by one of his vaccinations in question. He believes, however, that the available evidence, upon which Drs. Bellanti and Tornatore rely, simply is insufficient to show that it is *probable* that Michael's ATM was vaccine-caused.

C. Discussion

I have found the opinions of Drs. Tornatore and Bellanti to be more persuasive than that of Dr. Sladky in this case, for a number of reasons. First, I note that Drs. Bellanti and Tornatore have excellent credentials to opine concerning the issue here in question. Dr. Bellanti is a physician with excellent academic credentials and experience in the medical specialities of pediatrics and immunology. Dr. Tornatore is a physician with solid credentials in the speciality of neurology.

Second, I have found Dr. Bellanti's and Dr. Tornatore's explanations for their opinions to be logical, plausible, and persuasive. Those experts explained cogently the general phenomenon of autoimmune reactions (*e.g.*, Tr. 23-32), and testified that a significant percentage of cases of ATM are thought to be the result of an autoimmune process (Tr. 46-47). They explained why the timing of Michael's symptoms was perfectly consistent with that of an autoimmune process stimulated by one of the August 5 vaccinations. (Tr. 34, 45-46, 65.) They pointed to the medical literature documenting the causation of ATM by different types of vaccinations in the past. (Tr. 39, 56-63.) They pointed to the lack of evidence of any other likely cause for Michael's ATM. (Tr. 34, 55.) Putting these points together, they made a cogent case for the conclusion that Michael's ATM was likely vaccine-caused.

On the other hand, respondent has offered the opinion of Dr. Sladky. Dr. Sladky, to be sure, is a medical scientist of impeccable credentials to testify concerning this issue. Further, I have no doubt that Dr. Sladky was completely sincere in his opinion. Dr. Sladky certainly offered some important individual points. Overall, however, I conclude that Dr. Sladky, while nominally utilizing a "more probable than not" standard, in reality was, in effect, utilizing a *higher* standard, more akin to "scientific certainty" than to "more probable than not." For example, in summarizing his opinion about this case, Dr. Sladky, quite tellingly, stated that he found no "compelling" evidence proving a causal relationship. (Tr. 139.) The use of the word "compelling" seems to indicate, as does the tenor of his testimony in general, that Dr. Sladky would concede vaccine-causation of an injury only if the evidence made such causation seem *certain* or *near-certain.* This attitude is understandable in the cautious world of medical science, in which, usually, to justify a "causation" finding, a

scientist would need to see evidence beyond that of a mere "probability." However, the standard of "scientific certainty" is *not* the standard for showing causation that is applicable to *this proceeding*. Rather, as noted above, the applicable standard is that the petitioner must show that it is "more probable than not" that a vaccination was the cause of the injury.

As another example, I note that Dr. Sladky explained the type of evidence that would tend to convince him of a causal relationship. He described an epidemiologic study concerning the issue of whether the cytomegalovirus (CMV) causes Gullain-Barre Syndrome ("GBS"), in which the study showed that the incidence of GBS was significantly higher in those infected with CMV than in those free from such infection. He then stated that "I would accept that [study] as evidence that the virus is *probably* related." (Tr. 111, emphasis added.) His next two sentences were as follows:

> None of that data really has been available in vaccines. And if you can't establish a causal relationship, if you can't show that there's a scientific reason to believe that a particular vaccine can produce an antibody to a specific antigen within the nervous system, then you're doing a lot of handwaving.

(Tr. 111.) Thus, Dr. Sladky forthrightly told us what might influence him to acknowledge a "probable" causal relationship: an epidemiology study that explicitly demonstrates a statistically-significant association. Anything less, he seemed to suggest, is mere "hand-waving." But Dr. Sladky's apparent need to see an *epidemiologic study*, showing a statistically-significant association, before he could acknowledge a "probable" causal relationship, clearly indicates that he is using a standard *inappropriately high* for Program purposes. See, for example, the *Althen* decision, in which the U.S. Court of Appeals for the Federal Circuit specified that a petitioner's "causation-in-fact" claim need *not* be supported by "objective confirmation" in "medical literature," if it is supported by expert medical opinion. *Althen*, 418 F. 3d at 1279-1280. The *Althen* court further stated that "circumstantial evidence" may, in a specific case, support a finding of causation-in-fact. *Id.* at 1280. See also *Pafford v. Secretary of HHS*, 64 Fed. Cl. 19, 27-30 (2005), *aff'd* 451 F. 3d 1352 (Fed. Cir. 2006), in which Judge Block explained that causation-in-fact may, in appropriate circumstances, be demonstrated in the absence of epidemiologic evidence, by means of a "plausibility" showing; *Kelley v. Secretary of HHS*, 68 Fed. Cl. 84, 99 (2005), in which Judge Hewitt stated that under *Althen*, a causation-in-fact showing "does not require 'known,' 'studied,' 'exact,' or 'conclusive' evidence of causation;" and *Rodriguez v. Secretary of HHS*, 67 Fed. Cl. 409 (2005), in which Judge Merow found that a vaccination had caused an episode of transverse myelitis based on evidence similar to that available in this case, ruling that it would be inappropriate to require that the petitioner supply additional, "direct evidence" of causation.

In short, while I highly value the testimony of Dr. Sladky, in this case I conclude that he was utilizing an inappropriately high standard for determining causation.[6] Therefore, in the context of

[6]I note that another special master has also reached the conclusion that Dr. Sladky seems to utilize an inappropriately high standard for considering causation issues in Program cases. See *Rodriguez v. Secretary of HHS*, 2005 WL 1415445 at fn.13 (Fed. Cl. Spec. Mstr. May 13, 2005),

this case, I found Drs. Bellanti and Tornatore to be more persuasive in stating the opinions that Michael's case of ATM was, more probably than not, vaccine-caused.

Additionally, I note that another factor supporting my conclusion in this case was the article by Dr. Douglas Kerr, filed as petitioner's Ex. 22. Dr. Kerr, who has been a treating physician of Michael himself, is a neurologist and faculty member at John Hopkins University and Hospital, and is acknowledged as a leading expert in the field of transverse myelitis. Ex. 22 is a copy of a published medical journal article by Dr. Kerr concerning ATM. The article notes that some of the earliest recorded cases of ATM were found to result from smallpox *vaccinations*. (Ex. 22, p. 339.) It includes a section entitled "Post-vaccination acute transverse myelitis," which describes cases in which ATM has followed vaccinations, and then states that "[t]he suggestion from such studies is that a vaccination may induce an autoimmune process resulting in ATM." (*Id*. at 340-341.) In addition, a chart contained in the article notes that a physician confronting a case of ATM should "[d]etermine if recent history of vaccination." (*Id*. at 341.) To be sure, the section on post-vaccination ATM ends with two sentences stressing that vaccinations in general are quite safe, and that "caution" must be used in attributing causation in a particular case. (*Id*. at 341.) However, it seems fair to conclude from the article that Dr. Kerr, a leading expert, believes that it is at least *probable*, if not scientifically certain, that vaccinations can cause ATM.

Further, that same article also states that "it is widely reported in neurology texts that ATM is a post-vaccination event." (Ex. 22, p. 340.) And Dr. Sladky agreed that some neurology textbooks do, in fact, report ATM as a post-vaccination event. (Tr. 140.) Of course, as Dr. Sladky argued, medical textbooks sometimes are later proved to be wrong. But the fact that neurology textbooks often state that ATM may be caused by vaccinations is still, in my view, important evidence supporting a conclusion that it is *probable* that Michael's ATM was vaccine-caused.

Finally, I note one other point concerning the causation issue in this case. That is, the records of Michael's medical treatment contain several indications that Michael's *treating physicians* believed that it was either probable or possible that Michael's ATM was vaccine-caused. For example, Dr. Henry Dietrich wrote that Michael's ATM was "due to the pertussis allergic reaction in DPT immunization." (Ex. 1, p. 2.) Further, on several occasions when Michael went for follow-up care after his ATM incident, physicians noted in their records that the original ATM incident was probably or possibly vaccine-caused. See Ex. 1, p. 14 ("had reaction pertussis"); Ex. 1, p. 39 (Michael's "past medical history" is "significant for transverse myelitis secondary to a DPT shot at age four months"); Ex. 18, p. 3 (Michael's ATM "was felt to be secondary to virus or secondary to pertussis vaccine.") These statements from Michael's own treating physicians, expressing the opinion that Michael's ATM episode was probably or possibly vaccine-caused, are not crucial to my finding here, but add at least some additional support to a finding of causation in this case.

---

rev'd on other point, 67 Fed. Cl. 409 (2005).

In short, for all the reasons set forth above, I find it "more probable than not" that Michael's ATM was vaccine-caused.[7]

D. Final note

I find it appropriate to add a few more concluding thoughts concerning the causation issue, in this case and in general. First, I stress that the question of causation in this case is a close one, about which reasonable minds could differ. The evidence that I have examined certainly does not prove *conclusively* that the types of vaccination here in question can cause ATM. Indeed, that evidence does demonstrate clearly that *even assuming* that vaccines do occasionally cause such injury, they do so only on *extremely rare* occasions. The evidence is sufficient, however, in my view, to show that it is *probable* that these specific types of vaccinations can cause ATM in extremely rare instances, and that Michael's own case of ATM was vaccine-caused.

Further, I add that it is with considerable caution that I approach the task of ruling upon whether an individual's injury was caused-in-fact by a vaccination. I recognize that conclusions of this type, published in a public legal forum, conceivably might contribute to a lack of public confidence in the type of vaccination in question, or even in vaccinations in general. Such a result would be exceedingly unfortunate. The evidence that I have reviewed in this case, and in hundreds of Program cases, shows that the vaccinations commonly given at this time in this country have generally been impressive success stories. These vaccinations unquestionably have saved an untold number of lives, and prevented an unmeasurable amount of illness. While a very few persons may have been injured by unexpected reactions to such vaccines, there can be no serious question that

---

[7] I note that a number of published Program decisions have addressed allegations that a vaccination caused an episode of transverse myelitis. Such rulings have gone both in favor of and against the petitioner involved. *Rodriguez v. Secretary of HHS*, 67 Fed. Cl. 409 (2005), *reversing* 2005 WL 1415445 (Fed. Cl. Spec. Mstr. May 13, 2005); *Morris v. Secretary of HHS*, 57 Fed. Cl. 387 (2003), *affirming* 2002 WL 31965739 (Fed. Cl. Spec. Mstr. Dec. 15, 2002); *Guillory v. Secretary of HHS*, 59 Fed. Cl. 121 (2003), *aff'd*, 104 Fed. Appx. 712 (Fed. Cir. 2004); *Huston v. Secretary of HHS*, 39 Fed. Cl. 632 (1997); *McCummings v. Secretary of HHS*, 1992 WL 182190 (Cl. Ct. Spec. Mstr. July 10, 1992), *aff'd*, 27 Fed. Cl. 417 (1992), *aff'd*, 14 F. 3d 613 (Fed. Cir. 1993), *cert. denied sub nom. McCummings v. Shalala*, 114 S. Ct. 1541 (1994); *Harris v. Secretary of HHS*, 2001 WL 530644 (Fed. Cl. Spec. Mstr. Feb. 19, 1998); *Stevens v. Secretary of HHS*, 2006 WL 659525 (Fed. Cl. Spec. Mstr. Feb. 24, 2006); *Lodge v. Secretary of HHS*, 1994 WL 34609 (Fed. Cl. Spec. Mstr. Jan. 25, 1994); *Herkert v. Secretary of HHS*, 2000 WL 141263 (Fed. Cl. Spec. Mstr. Jan. 19, 2000); *Yergert v. Secretary of HHS*, 1995 WL 108673 (Fed. Cl. Nov. 29, 1995); *Camerlin v. Secretary of HHS*, 2003 WL 22853070 (Fed. Cl. Spec. Mstr. Oct. 29, 2003). I have reviewed those decisions, but I have not found anything in those rulings that changes, or substantially affects, my analysis above. Some of those cases involved factors not relevant to this case. I find that the record of *this case* supports my conclusion stated above.

Similarly, I have reviewed the material that I filed into the record of this case on February 9, 2006, from the Institute of Medicine report, but, again, I found nothing there to be inconsistent with my ruling here.

the benefits of such vaccinations, to both vaccinated individuals and to our society, have outweighed the very slight risks involved in a few types of vaccinations. Accordingly, I hope that my finding stated in this ruling will be perceived in an appropriate fashion--*i.e.*, with the understanding that the scientific evidence is far from clear, and that even *assuming* that these types of vaccinations can cause neurologic injuries, they do so only in exceedingly rare instances.

IV

FURTHER PROCEEDINGS

For the reasons stated above, I find it "more probable than not" that Michael's ATM was vaccine-caused. Therefore, I conclude that the petitioner, Michael's mother, is entitled to a Program award, on Michael's behalf, on account of that ATM and any lingering effects thereof. I will soon schedule a status conference to discuss the issue of the appropriate *amount* of the award.

/s/ George L. Hastings, Jr.

_____

George L. Hastings, Jr.
Special Master