



THE SECRETARY OF HEALTH AND HUMAN SERVICES  
WASHINGTON, D.C. 20201

September 2, 2009

William E. Reukauf  
Acting Special Counsel  
U.S. Office of Special Counsel  
1730 M Street, N.W., Suite 218  
Washington, D.C. 20036

Re: OSC File No. DI08-2680

Dear Mr. Reukauf:

As requested in a January 9, 2009 letter, attached is a summary of the investigation into allegations that National Institutes of Health (NIH)/National Institute of Allergy and Infectious Diseases (NIAID) employees violated the Food and Drug Administration's (FDA) adverse event reporting regulations during the course of a drug study.

A redacted and an unredacted version of the report have been provided. The redacted version contains redactions for personal privacy information and confidential commercial information that is protected from disclosure under the Trade Secrets Act and FDA's regulations.

Sincerely,

Kathleen Sebelius

Attachments



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
Silver Spring, MD 20993

MEMO TO: Acting Special Counsel William E. Reukauf  
U.S. Office of Special Counsel

FROM: Leslie K. Ball, M.D. for OPPB 7/13/09  
Division Director, Division of Scientific Investigations  
Office of Compliance  
Center for Drug Evaluation and Research  
Food and Drug Administration

THROUGH: Deb Autor, ESQ.  
Director, Office of Compliance  
DATE:

SUBJECT: HHS Report to the U.S. Office of Special Counsel

RE: OSC File No. DI-08-2680

**BACKGROUND:**

On February 13, 2009, the Division of Scientific Investigations (DSI) within the Office of Compliance at the Center for Drug Evaluation and Research (CDER), U.S. Food and Drug Administration (FDA), was forwarded a letter dated January 9, 2009, that had been sent from the U.S. Office of Special Counsel (OSC) to the Honorable Secretary of the Department of Health and Human Services, Michael O. Leavitt. The letter noted that a whistleblower, Dr. Arnaldo Quinones, a former medical officer at the National Institute of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health, disclosed alleged wrongdoings by employees of NIAID in relation to a study involving the use of the investigational drug, [REDACTED]. Per the OSC letter, Dr. Quinones alleged that (1) the April 12, 2005 Quarterly Safety Report submitted by [REDACTED] to NIAID, failed to include all known Serious Adverse Events (SAEs) and (2) serious unexpected adverse events possibly associated with the use of the investigational drug were not reported to the FDA within 15 days of discovery as required by federal regulation. Per the January 9, 2009 letter, on the basis of the information that was disclosed, OSC was required to contact the appropriate agency head of the findings and the agency head was required to conduct an investigation of the allegations and prepare a report within 60 days of receipt of the letter. The letter further noted that a 60 day extension could be requested. On March 17, 2009, a request was made for a 60 day extension and on March 17, 2009, OSC granted the extension of the deadline for the written report until May 11, 2009. As FDA's investigation into this complaint had not been completed as of the beginning of May, 2009, on May 8, 2009, a second request for extension was made. OSC granted an extension of the deadline for the written report until July 13, 2009.

SUMMARY OF FDA'S INVESTIGATION INTO ALLEGATIONS:

Per the January 9, 2009 OSC letter, as the whistleblower, Dr. Arnaldo Quinones, disclosed his name, OSC's policy required that the FDA interview him as part of our investigation. Such an interview took place on March 19, 2009. A Memorandum For Record (MFR) was generated as a record of the discussion held with Dr. Quinones. This MFR was subsequently shared with Dr. Quinones to ensure his concurrence with information provided during the telephone discussion. In an email dated April 6, 2009, Dr. Quinones concurred with the content of the MFR with two minor changes to the spelling of the names of specific individuals in the document. Attachment A below is the final MFR concerning the telephone discussion that took place on March 19, 2009.

In FDA's review of the documents provided by Dr. Quinones to the OSC, as well as the information he provided to DSI during the March 19, 2009 telephone discussion, Dr. Quinones' concerns resulted from his review of two SAEs that occurred at two separate clinical investigator sites. A summary of Dr. Quinones' concerns is provided below:

1. With respect to the clinical investigative site at the [REDACTED] Hospital, subsequent to Dr. Quinones' review of the SAE report and the subject's medical records, he was concerned that the 20 year old subject (Subject # [REDACTED]) did not meet eligibility for enrollment into the study. In addition, Dr. Quinones noted that during enrollment of this subject into the study, this subject developed elevated liver enzymes and thrombotic thrombocytopenic purpura (TTP), which in Dr. Quinones' opinion were serious unexpected adverse events that were possibly associated with the use of the investigational drug and thus required expedited reporting to the FDA per the regulatory requirement. The subject subsequently died while on study. On February 2, 2005, Dr. Quinones discussed his concerns with Holli Hamilton (Chief Medical Officer, Division of Microbiology and Infectious Diseases (DMID), NIAID), that these events were not being reported in a timely manner to the FDA and that the only thing that was submitted to DMID was the initial report of the subject's death. Dr. Quinones noted that during his tenure at DMID (January 2005 – May 2005), these events were not reported to the FDA. Dr. Quinones further noted that the April 12, 2005 Quarterly Safety Report, prepared and submitted by [REDACTED] to DMID, only noted this subject's SAE of death, but did not include the information about the protocol deviation of eligibility violation and the SAEs of increased liver enzymes and TTP experienced by the subject during the study.
2. With respect to the clinical investigative site at the [REDACTED] Hospital Center, subsequent to Dr. Quinones' review of the SAE report and the subject's medical records, he was concerned that the 102 year old subject (Subject # [REDACTED]) was enrolled into the study without proper and adequate informed consent. In addition, Dr. Quinones noted that while the subject was enrolled in the study, the subject experienced pancreatitis and elevation of liver enzymes which Dr. Quinones believes were serious unexpected adverse events related to the use of the investigational drug and thus required reporting to the FDA in an expedited time frame. Dr. Quinones noted that during his tenure with the bacteriology and mycology group at NIAID (January 2005-May 2005), he was not informed that these events were reported to the FDA even though he raised concerns that they should have been. In reference to the April 2005 Quarterly Safety Report submitted by [REDACTED] to NIAID, the report only noted this subject's SAE of death and did not include the information about any problems with informed consent of the subject or about the elevation of liver enzymes or pancreatitis that Dr. Quinones believed was associated with the use of the investigational drug.

To investigate Dr. Quinones' allegations, DSI had requested and reviewed relevant archived documentation submitted by NIAID to the FDA's Division of [REDACTED] in relation to Protocol [REDACTED]. [REDACTED] is the CDER review division responsible for oversight of Protocol [REDACTED]. [REDACTED] also provided additional information and guidance to DSI in regards to information submitted to them during the study as well as IND regulatory requirements. In addition, DSI issued inspection assignments targeted at the clinical investigator sites where Subjects # [REDACTED] and # [REDACTED] were enrolled into Protocol [REDACTED]. As a part of the inspectional assignment, FDA investigators were requested to obtain all medical records and laboratory reports for the two subjects noted above who were the primary concerns of Dr. Quinones. DSI requested these records to allow for a review of the records by [REDACTED] medical officers, if needed. The following provides information related to FDA's investigation of the clinical investigator sites:

1. With respect to the clinical investigator site at the [REDACTED] FDA has conducted and completed our inspection of this site. Further, FDA has reviewed and evaluated the records related to the 20 year old subject (Subject # [REDACTED]) in light of the concerns that were raised by Dr. Quinones. The following provides an assessment of our findings:

a. Dr. Quinones raised concerns that the subject was enrolled outside of the protocol window for eligibility into the study.

FDA has reviewed the records for this subject in relation to the protocol specifications for eligibility for enrollment into the study. FDA notes that the clinical investigator at [REDACTED] made a judgment call to enroll this subject into the study based on the investigator's interpretation of the protocol and the unique clinical circumstances specific to this patient's clinical history. In our review of the subject's medical records, there were confounding factors at the time of enrollment that did not allow a clear call on eligibility relative to the requirements as specified in the protocol. In addition, FDA found no evidence of systemic bias in subject's receiving study drug at this site and no evidence that the investigator was trying to circumvent the protocol requirements. Therefore, FDA was unable to substantiate Dr. Quinones' concerns that the subject was enrolled outside of the protocol window.

b. Dr. Quinones raised concerns that the subject was enrolled even though the subject had exclusionary elevated liver enzymes.

FDA's review of the records for this subject was unable to find evidence that at enrollment, the subject had elevated liver enzymes that would have excluded the subject from the study. Thus, FDA was unable to substantiate Dr. Quinones concerns.

c. Dr. Quinones raised concerns that during the study the subject experienced elevated liver enzymes and thrombotic thrombocytopenic purpura (TTP), which in his opinion were serious unexpected adverse events that were possibly associated with the use of the investigational drug and thus required expedited reporting to the FDA. Dr. Quinones noted that these events were not reported to FDA during his tenure with the bacteriology and mycology group even though he raised concerns that these SAEs should have been. Dr. Quinones further noted that these events were not placed into the April 2005 Quarterly safety report submitted by [REDACTED] to DMID.

With respect to elevation of liver enzymes, FDA found that the approved drug labeling for [REDACTED] notes that increases in liver enzymes is a possible expected adverse event in individuals taking [REDACTED]. It is not unexpected, then, that the subject experienced an elevation of liver enzymes during the study. In FDA's review of the medical records, the elevated liver enzymes experienced by the subject were not serious and unexpected events associated with the use of the investigational drug. Therefore, FDA would not have required that this be reported to the FDA in an expedited time frame. Thus, Dr. Quinones' concern related to the elevation of liver enzymes during the study being a serious and unexpected event associated with the use of the investigational drug could not be substantiated.

With respect to the development of TTP, FDA's review found that the subject's platelet count did drop in extremis. However, FDA also found that the approved drug labeling for [REDACTED] notes that TTP is listed as a possible adverse event. As such, it is not unexpected that the subject experienced TTP during the study. Therefore, FDA was unable to substantiate Dr. Quinones' concern that the development of TTP was a serious and unexpected event associated with the use of the investigational drug and thus required to be reported to the FDA in an expedited time frame.

2. With respect to the clinical investigative site at the [REDACTED] Hospital Center, FDA has conducted and completed our inspection of this site. FDA has further reviewed and evaluated the records related to the 102 year old subject (Subject # [REDACTED]) in light of the concerns that were raised by Dr. Quinones. The following provides an assessment of our findings:

- a. Dr. Quinones raised concerns of improper and inadequate consent related to the enrollment of this subject.

DSI notes that during the FDA inspection of the clinical investigator site, our FDA investigator reviewed the informed consent documents for subjects enrolled into the study and noted that as the pool of subjects for this study were those that were recently admitted to the ICU, for 6 of 7 subjects enrolled into this study, consent for enrollment was provided by a family member (daughter, husband or sister). Our FDA investigator reported that, based on his review of the informed consent documents, he found no evidence of improper consent. In addition, in DSI's review of the medical records procured during the FDA inspection, we note that the clinical investigator and the nurse both documented in separate notes that they discussed the risks/benefits of the study with the subject's daughter prior to obtaining informed consent and that it was the daughter who signed the informed consent document for the enrollment of the subject into the study. Thus, in review of the inspectional findings and records, no evidence was found to substantiate that there was improper and inadequate informed consent in relation to the enrollment of this subject into this study.

- b. Dr. Quinones raised concerns that during this subject's enrollment in the study, the subject experienced pancreatitis and elevation of liver enzymes, which he believed were serious unexpected adverse events related to the use of the investigational drug and thus required reporting to the FDA in an expedited time frame. Dr. Quinones noted that these events were not reported to FDA during his tenure with the bacteriology and mycology group even though he raised concerns that these SAEs should have been. Dr. Quinones further noted that these events were not placed into the April 2005 Quarterly safety report submitted by [REDACTED] to DMID.

In review of the medical records and laboratory reports for this subject, the clinical investigator and nurse documented that this subject met eligibility criteria for this study. In FDA's review of the medical records and laboratory reports for the time period between the subject's enrollment into the study (February 28, 2005) until the time the subject died (██████████), no evidence was found to substantiate that the subject experienced elevated liver enzymes or pancreatitis. Specifically, FDA's review of the records showed that there were no post-baseline tests that were conducted for liver or pancreatic enzyme levels. Thus, FDA could find no evidence of elevation of liver enzymes or pancreatitis occurring as SAEs during the subject's enrollment into the study.

FDA notes further that except for subjects on ██████████ the protocol required weekly laboratory studies including hematology and chemistry to be conducted on enrolled subjects. For subjects on ██████████ these tests included liver function tests that were to be done twice weekly. FDA's review of Subject # ██████████'s records indicated this subject was not on ██████████ and, thus, only weekly laboratory studies were required on this subject as specified by the protocol. In review of the laboratory reports for this subject, although some hematology and chemistry tests were conducted daily on this subject during the subject's enrollment in the study, these laboratory tests appeared to be performed more as a part of the subject's standard medical care. FDA notes that liver function tests were not conducted post-enrollment; however, this is not considered a protocol deviation because the protocol required that the comprehensive protocol specified laboratory tests, to include liver function tests, be done only weekly and a week had not elapsed subsequent to the subject's enrollment into the study (enrollment into study: February 28, 2005; date of death: ██████████). Therefore, based on FDA's investigation, the concerns raised by Dr. Quinones could not be substantiated.

**CONCLUSION:**

FDA's inspections were unable to substantiate the concerns noted in Dr. Quinones' allegations. Thus, FDA is unable to substantiate the concerns that were raised in regards to deficiencies in the April 2005 Quarterly Safety Report submitted by ██████████ to NIAID and the concerns that serious adverse events associated with the use of the investigational drug were not reported to the FDA. Given these findings, FDA does not believe that further inspections of sponsor, NIAID, or ██████████ are warranted.

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**STATEMENT OF CONFIDENTIALITY:** Per the January 9, 2009 OSC letter, after making determinations required by 5 U.S.C 1213(e)(2), copies of this written report, along with any comments on the report from the whistleblower and any comments or recommendations by OSC were to be sent to the President and the appropriate oversight committees in the Senate and House of Representatives. The letter further noted that unless classified or prohibited from release by law or by Executive Order requiring that the information be kept secret in the interest of national defense or the conduct of foreign affairs, a copy of the report and any comments will be placed in a public file in accordance with 5 U.S.C. 1219(a). Accordingly, FDA is providing both a redacted and an unredacted version of the report. The redacted version contains redactions for personal privacy information and confidential commercial information. With regard to the former, information regarding the date of death has been redacted to protect the privacy of a research subject.

With regard to the latter, FDA has redacted confidential commercial information that is protected from disclosure under the Trade Secrets Act (TSA) (18 U.S.C. § 1905) and FDA's

regulations (specifically, 21 C.F.R. §§ 20.61 and 312.130). FDA considers information in an investigational new drug application (IND) to be confidential commercial information under the TSA, and thus such information is not publicly available until the time that the IND is incorporated into a new drug application (NDA) that is subsequently approved (indicating that the product can be legally marketed in the U.S.). The allegations raised by Dr. Quinones pertain to a study that was conducted under an IND, and that IND has not been incorporated into an approved NDA. It is possible that, depending on the relationship between NIAID and the pharmaceutical company that co-sponsored the trial, some or all of the information that would ordinarily be exempt from disclosure would in fact be releasable. However, FDA is not able to make this determination, because it is not privy to the details of that relationship (contractual or otherwise). FDA therefore has redacted the information at issue.

## Memorandum For Record

Date: April 6, 2009

Subject: Summary of Teleconference (March 19, 2009) and statements of fact made by Dr. Arnaldo Quinones to FDA employees Dr. Dan-My Chu and Dr. Lauren Iacono-Connors.

Teleconference Attendees:

Arnaldo Quinones, M.D.

Dan-My T. Chu, Ph.D. – DSI

Lauren Iacono-Connors, Ph.D. – DSI

Summary:

Dr. Quinones informed DSI that from the timeperiod between January 10, 2005 to May 2005, he served as a medical officer within the bacteriology and mycology branch of the Division of Microbiology and Infectious (DMI) Diseases within the National Institutes of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health (NIH). Specifically, during this time period, Dr. Quinones was the medical officer assigned to handle the review and oversight of Study Protocol [REDACTED].

Per Dr. Quinones, Study [REDACTED] began sometime around August 2004. In January 2005 when Dr. Quinones took over the oversight of the study, NIH's data safety monitoring board (DSMB) had not yet reviewed the study. Dr. Quinones noted that when he closely examined two serious adverse event (SAE) reports that were submitted to both him and Holli Hamilton, he was concerned about the reports and requested that all medical records related to the SAEs be sent directly to him for further evaluation. Dr. Quinones noted that after review of the medical records for these two subjects with his background as a hematologist, he had significant concerns about protocol deviations, lack of adverse event reporting, and/or problems with informed consent. Dr. Quinones relayed his concerns about each SAE to DSI participants during this telephone conference:

1. SAE report from the [REDACTED] Hospital

The SAE report that was sent to DMI consisted only of the report of the death of the 20 year old subject. Dr. Quinones noted that subsequent to the receipt of this SAE report, he requested the subject's complete medical records for review. In Dr. Quinones review, he found that this subject, who had cystic fibrosis, had been admitted to [REDACTED] Hospital and then was enrolled into the study outside of the 4 day window for enrollment of the subjects into the study (i.e. was a protocol deviation). In addition, at enrollment, this subject had elevated liver enzymes which were also exclusionary. Dr. Quinones further noted that during this subject's enrollment into the study, the subject developed increasing amounts of liver enzymes and thrombotic thrombocytopenic purpura (TTP). The subject also had a chest tube that was placed in and had other issues as well. The subject subsequently died. As noted previously, the only thing that was reported to DMI was the subject's death with no additional information related to the protocol deviations or the abnormal laboratory results.

Dr. Quinones stated that in his review of the medical records including laboratory results, he felt that the increase in liver enzymes and development of TTP were serious unexpected adverse events that were possibly associated with the use of the investigational drug and thus should have been reported immediately to the FDA per the regulatory requirement. He noted that as the study drug, [REDACTED], was metabolized by the liver, the development of increased liver enzymes and TTP were serious problems. On February 2, 2005, he discussed his concerns with Holli Hamilton that these events were not being reported in timely manner and that the only thing that was submitted to the group was the initial report of the subject's death.

Dr. Quinones further stated that at the time, he also informed Wendy Fanaroff, who was the one individual within the NIAID's group within the Office of Regulatory Affairs that was assigned to this study to handle all of the reporting of events to the FDA. Dr. Quinones stated that during the time in which he was assigned to the branch, he does not believe these events were reported to the FDA as the policy at that time was that any written report to be sent to the FDA would have to first be vetted by the medical officer before it could be sent out and one was not sent through to him while he was with the group. Per Dr. Quinones, Lydia Falk was the chief of the DMI's Office of Regulatory Affairs at the time.

In reference to the April 2005 Quarterly Safety Report, Dr. Quinones stated that the report only noted this subject's SAE of death but did not include the information about the subject being enrolled outside the protocol window and having exclusionary liver enzymes. The report also did not include information related to the increased liver enzymes and TTP experienced by the subject.

## 2. SAE report from the [REDACTED]

The SAE that was reported was the death of a 102 year old woman. From review of the medical records, Dr. Quinones noted that this subject had arrived in the ER with changes in mental status. The subject was then intubated and then transferred to the medical floor. The next day the subject was enrolled into the study. Based on the review of the medical records, Dr. Quinones had concerns about how this subject whose mental status was altered and was intubated, could have been properly provided adequate informed consent to be enrolled into the study. In addition, Dr. Quinones noted that the subject arrived late at night and the family members who signed consent did not arrive until the next morning but the subject was enrolled into the study the next morning.

In addition, Dr. Quinones noted that in his review of the medical records for this subject that was obtained after the SAE report was initially sent to DMI, he noted while the subject was enrolled in the study, the subject experienced pancreatitis and elevation of liver enzymes. Given that [REDACTED] is metabolized by the liver, Dr. Quinones believes that pancreatitis and elevation of liver enzymes were serious unexpected adverse events related to the use of the investigational drug and thus required reporting to the FDA in an expedited time frame. Dr. Quinones noted that during his tenure with the bacteriology and mycology group, he was not informed that this was reported to the FDA even though he raised concerns that these AEs should have been.

In reference to the April 2005 Quarterly Safety Report, the report only noted this subject's SAE of death but did not include the information about any problems with informed consent of the subject and also did include information related to the SAEs that Dr. Quinones believed was associated with the use of the investigational drug.

Dr. Quinones informed DSI participants during the teleconference that subsequent to the review of these subject's medical records, he kept relaying his concerns about the lack of reporting of the serious adverse events related to the use of the investigational drug (i.e. increased liver enzymes, TTP), and other problems such as protocol deviations and possible lack of informed consent to other individuals involved in oversight of the study. These individuals included:

- A. Holli Hamilton – Dr. Quinones noted that in discussions with Holli Hamilton about the lack of information related to these two SAEs, Dr. Hamilton made the comment via email that she guessed they would need to hire [REDACTED] (another contract research organization) to rewrite all of the SAEs.
- B. Dr. Pollack – Chair of NIH's data safety monitoring board (DSMB)
- C. Dennis Dixon – Dr. Quinones immediate supervisor at the time
- D. Marilyn Tuttleman – Project Officer (NIH) for the contract that was used to support the study (\* study was contracted out).
- E. Dr. [REDACTED] – Principle Investigator of the study (contract recipient). Dr. Quinones noted that in his discussions with Dr. [REDACTED], Dr. [REDACTED] informed him that they did not have to include all SAE findings to the DSMB.
- F. [REDACTED] – Per Dr. Quinones, [REDACTED] was contracted to report SAEs obtained from the sites and to submit those SAEs to NIH. In addition, [REDACTED] was contracted to keep the regulatory files. Per Dr. Quinones, as [REDACTED] did not do an adequate job, another CRO [REDACTED], ended up doing their job for them. Dr. Quinones noted that he had weekly meetings with Dr. [REDACTED] and [REDACTED] concerning the study.
  - [REDACTED] – [REDACTED] was contracted to perform quality assurance auditing for the study. However as [REDACTED] did a poor job, [REDACTED] ended up writing the SAEs and the reports to the DSMB.
- G. [REDACTED] – Per Dr. Quinones, [REDACTED] was the co-sponsor of this study. [REDACTED] had a separate Data Monitoring Committee (DMC) that was independent of the NIH's DSMB. Thus [REDACTED] also had real time information about these SAEs. Dr. Quinones noted that in an April 12, 2005 meeting of investigators at NIH, Dr. Quinones informed the medical officer at [REDACTED] about his concerns related to the serious unexpected AEs that he believed were related to the use of the investigational drug. Dr. Quinones noted nothing came about subsequent to this discussion.
  - Dr. Quinones thought that it was unusual that there was a separate DMC at [REDACTED] versus the DSMB at NIH used for the current study. In discussion with Dr. Dixon (Dr. Quinones immediate supervisor), Dr. Dixon informed him that [REDACTED] role in this study was to collect fungal isolates for genetic analysis. Dr. Quinones noted that the collection of fungal isolates was not a part of the protocol or in the informed consent.
- H. Margarita Osorio – Per Dr. Quinones, everything that was found was sent through to the Office of Regulatory Affairs (DMID) in hopes that they would forward everything to the FDA. Ms. Osorio was another individual in ORA that was associated with the study.

Dr. Quinones noted that even after these discussions with various individuals, upon receipt of the April 2005 quarterly safety report submitted from [REDACTED] the items related to the lack of reporting of the serious adverse events associated with the use of the investigational drug and the protocol deviations were missing from the report. With respect to the contents of the quarterly safety report that NIH required from [REDACTED], Dr. Quinones noted that there was a written contact between NIAID and [REDACTED] concerning what was to be submitted in these safety reports and that it did include the requirement for reporting the items identified by Dr. Quinones.

In response to the question of whether or not these events were reported to the FDA at a later date, Dr. Quinones noted that during the time in which he was at DMI, he does not believe that they were sent to the FDA as the policy at the time was that any reports submitted to the FDA were to go through the medical officer and none were sent through to him. He noted however, that he may also have been left out the reporting. In addition, Dr. Quinones noted that after his departure from DMI in May 2005, he does not know whether or not the events noted above were reported to the FDA at a later date.

When asked whether the individual assigned to the study prior to Dr. Quinones had found problems with the study, Dr. Quinones noted that prior to him, Rose Marie McCown was assigned to provide oversight for the study between August 2004 and January 2005. Dr. Quinones noted that she had informally cautioned Dr. Quinones to not get into the relationship between [REDACTED] and DMID. This was due to the fact that Thomas Walsh of NCI was the principle individual who handled the contract for [REDACTED] and he was a good friend of Dennis Dixon (Dr. Quinones supervisor).

In summary, Dr. Quinones unequivocally stated that he felt these serious adverse events, and the clinical observations and events leading up to them, were not reported in a timely manner to the FDA and that they both (1) were unexpected in that they were not expected to have occurred in these two individuals and (2) were associated with the use of the investigational drug, and thus should have been reported to the FDA in an expedited time frame. Specifically with respect to the first SAE, this was reported to Dr. Quinones on February 2, 2005 and it was on this date that he discussed this with Holli Hamilton. Therefore, Dr. Quinones believes that this SAE should have had expedited reporting to the FDA.

Completed action items:

1. Distributed MFR to Dr. Quinones via email on March 26, 2009 to verify that this summary was consistent with statements that he made to DSI on March 19, 2009 teleconference. Dr. Quinones was to review and respond directly to Dan-My Chu with either corrections or concurrence on MFR via email preferably no later than Thursday April 2, 2009.
2. In an email dated April 6, 2009, Dr. Quinones replied to Dan-My Chu that he had reviewed the filed document containing the summary of the telephone conversation and he agreed with its content with only two minor corrections to the spellings of the names of Marilyn Tuttleman and Dennis Dixon. Dr. Quinones email noted that he corrected the names in red and enclosed the document in the email. However, there was no document was provided in the email.
3. The names were updated on the original MRF and this one serves as the final record of the telephone discussion.