

review of the materials.

4. Mr. Philipsborn's office sent me the following material: a typewritten post-mortem examination report under the name Steve Edward Branch, ME-330-93, identifying Dr. Frank J. Peretti, Associate Medical Examiner, as the pathologist of record, and setting forth a post-mortem examination report. The report is on what I understand to be a standard form of the Arkansas State Crime Laboratory Medical Examiner Division.
5. I also received, in a similar format, a post-mortem examination report for Christopher Mark Byers under No. ME-331-93.
6. I also received a similar report under the name James Michael Moore in case ME-329-93.
7. In addition, Mr. Philipsborn sent me disks of what were identified to me as case photographs pertinent to *State v. Echols, et al.*, and to the deaths of James Michael Moore, Steven Branch, and Christopher Byers. The photographs included autopsy photographs consistent with the case numbers set forth above, at least as these were identified in some of the photographs. I have relied on counsel for the accuracy of my understanding that the photographs provided to me are all connected with *State v. Echols, et al.*, and to the questions asked of me by counsel.
8. In addition, I received two transcripts of the testimony of Dr. Frank Peretti identified to me in a letter dated November 7, 2006, as follows. One

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transcript, covering pages 1002 through 1140 was identified to me as a transcript of Dr. Peretti's testimony in *State v. Echols and Baldwin*. The second transcript was identified to me as the testimony of Dr. Peretti in *State v. Misskelley*, covering pages 812 through 855. I was informed by counsel that *State v. Misskelley* involved the same killings, and autopsy reports, described above - namely the killings of James Michael Moore, Steven Branch, and Christopher Byers.

9. Under separate cover, I was also provided with a document entitled "Narrative Report", and identified as authored by Dr. Richard Souviron, Chief Odontologist with the Miami-Dade Medical Examiner's Office.
10. While I am generally aware, based on statements made to me by counsel, that other forensic pathologists have been involved in the review of this matter, I have not been provided with any reports other than those listed here.
11. In my consultation with Mr. Philipsborn, I was asked to address the following three subjects: First, whether the post-mortem examination reports, and of the crime scene, am I of the opinion that the post-mortem examination reports contain statements, descriptions, findings and opinions set forth according to standards of professional practice applicable to forensic pathologists in 1993, and at the present time in 2008.
12. Second, was Dr. Peretti's testimony in both the *Echols/Baldwin* trial, and in

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the *Misskelley* trial, given according to the standards of practice applicable to a pathologist presenting testimony about the mechanisms of injury and cause(s) of death to a child under 12 years of age in a criminal trial in 1993, and also at present in 2008.

13. Finally, I was asked by Mr. Philipsborn to provide recommendations of further information that I would like to see in order to better evaluate and analyze the issues presented in this case.
14. In formulating my answers to these questions, I have depended on my background, training, and experience as a currently licensed medical doctor who graduated from the University of Minnesota School of Medicine in 1971, and who undertook a residency in Pediatrics at the University of Minnesota, and a residency in Anatomic Pathology in the Department of Laboratory Medicine and Pathology at the University of Minnesota between 1975 and 1979. During that time, I received specialty training in pediatric pathology.
15. Between the years 1978 and 1979 I received specialty training in pediatric pathology at both the University of Minnesota and Minnesota Children's Medical Center.
16. Thereafter, I completed a fellowship in forensic pathology at the Hennepin County Medical Examiner's office in Minneapolis, Minnesota in 1980.
17. I have been certified by the American Board of Pathology as of 1981. I was

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further certified by the American Board of Forensic Pathology as a forensic pathologist in 1981.

18. During the course of my professional career I have served in a number of administrative capacities in hospitals. As pertinent here, I was the Deputy Medical Examiner for Hennepin County, Minnesota, in Minneapolis, Minnesota from May, 1989 into 1992.
19. I served as a forensic pathologist for Midwest Forensic Pathology, and as Assistant Coroner for the counties of Anoka, Crow Wing, Mecker, Mille Lacs and Wright in Minnesota. My employment in that capacity lasted between January, 2002 and November, 2003.
20. From May, 2003 to the present I have been a contract forensic pathologist at the Minnesota Regional Coroner's office, as well as an Assistant Coroner and Medical Examiner for the counties of Houston, Carver, Chisago, Dakota, Fillmore, Goodhue and Scott in Minnesota.
21. Since September of 2003 to the present I have served as a forensic pathologist, Assistant Coroner and Medical Examiner at the St. Louis County Medical Examiner's office as well.
22. Finally, since January of 1981 to the present, I have also been employed as an independent consultant in pediatric forensic pathology.
23. Appended to this affidavit, I have set forth my CV which describes my training, background, areas of interest, and professional appointments.

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24. In addition, I have listed my various presentations and abstracts, and publications.
25. Over a period of many years, I have consulted with physicians, law enforcement agencies, medical and legal groups on the subjects of child abuse, suspected child abuse, and child neglect.
26. I have been involved in the post-mortem examination of numerous children under the age of 12, and have on more than 500 occasions been asked to consult on cases in which it was suspected either by law enforcement or other governmental agencies, or by a physician, or other reporting party, that a child under the age of 12 had died as a result of abuse or other criminal activity.
27. I have been involved in approximately 20 cases of deceased children under the age of 8 who were suspected to have been sexually abused prior to, or in connection with, their deaths.
28. I have qualified as an expert witness in the majority of U.S. states, and many Federal jurisdictions.
29. During the course of my professional career, I have become familiar with the standards applicable to the investigation and review of infant and child deaths. I am aware that various agencies and organizations have published standards concerning the investigation of death, including the investigation and review of unexpected infant and child deaths, and other similar

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standards and protocols. Some of these have been published by the U.S. Department of Justice. Others have been published by professional organizations like the American Academy of Pediatrics. I am aware that the Centers for Disease Control have published materials pertinent to the investigation of death in infants, and that a number of guidelines have been published over the years to address the diagnostic, necropsy, and information sharing processes involved in the death of infants, and of children.

30. I have brought to the attention of counsel in this case ongoing inquiries of the Goudge Commission in Canada, which is investigating the application of forensic sciences to the investigation of causes of death in children. The Commission was formed in part to address what have now been established to have been errors committed in the investigation of causes of death in children, including at least one well publicized case in which it had been suspected that a child had been killed by a parent wielding a knife, and it turned out, after further review and upon further investigation, that the child had died as a result of having been attacked by a dog.
31. I am providing this information to the Court in part because it is necessary to point out that in the absence of the application of accepted methods to the post-mortem examination process, errors can be made even by relatively experienced Medical Examiners and forensic pathologists that result in the

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mistaken description of causes of injury and death, particularly in children. Based on my review of hundreds of cases involving deaths of children under the age of 12, I believe it correct to state that the assessment of mechanisms of injury, and causes of death, in children under the age of 12 present special issues and problems that can be overlooked by even experienced forensic pathologists.

Observations concerning this case

32. Counsel provided me with a disk of photographs that included photographs that I believe were taken during the course of the post-mortem examination of the remains of the three victims in this case. Not all of these photographs are of good quality. The photographs were sufficient for me to report to counsel that it appeared to me that some of the injuries that appear on the bodies of all three of the victims were caused by one or more animals chewing and clawing the bodies.
33. I reviewed the photographs of Christopher Byers, whose remains were missing the testes and tissues normally associated with the penis. It was my view, subject to obtaining further information, that the appearance of the wounds in the genital area of this boy show irregularity consistent with tissue being pulled off after having been gnawed upon.
34. I also saw, in the same remains (Christopher Byers), evidence of chewing, biting, and likely clawing on the area of the inner thigh.

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35. I reviewed photographs of the injury to the ear of Christopher Byers which had been described during trial as likely having been injured during some form of sexual attack. Based on the appearance of the injuries, it appeared to me that it was more likely that the photographed injury to the ear had been likely chewed and pulled upon by an animal rather than a human being.
36. I told counsel that in order to provide more informed opinions, I would need additional data, including tissue slides, and copies of any additional file materials available through the Office of the Medical Examiner in the Arkansas State Crime Laboratory. I have informed counsel that the notations in the post-mortem examination reports in specific areas are both technically incorrect, and inappropriate. For example, as to Christopher Byers, there is an indication in the area of "pathologic diagnoses" of "dilated anus". This purported 'diagnosis' was used during the testimony of Dr. Peretti to suggest that there were findings consistent with sexual abuse, including the finding of anal dilation. This finding is insufficient, standing alone, to specifically suggest that the victims were in any way sexually penetrated, or abused, prior to their deaths.
37. The 'finding' in the Byers autopsy report that 'all body organs showed diffuse pallor' is not a useful 'finding'. It does not indicate that Christopher Byers "bled out", which was part of the implication during the course of the

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trial testimony. While the body may have been remarked to have been pale, the report also indicates that there was 'minimal posterior fixed lividity', which means that at the time of death there was enough blood in the body to present livor, and thus evidence the presence of blood.

38. In the case of James Michael Moore, it appears from the photographs that the foamy purge associated with him is consistent with drowning.

However, because of what can be described as an incomplete post-mortem investigation of death, it is also possible that the other victims drowned as well. The question of exactly how these young boys died cannot be ascertained based on the contents of the post-mortem examination reports generated by the Arkansas State Crime Laboratory, in part because they do not contain data necessary to establish a reliable and valid statement of cause of death.

39. Similarly, the testimony by Dr. Frank Peretti submitted to me and represented, as I describe above, as having been given both in *State v. Echols, et al.*, and in *State v. Misskelley*, contains errors that in my opinion should have been corrected by Dr. Peretti while he was on the witness stand. While any experienced forensic pathologist understands that lawyers in a criminal case may, for strategic or other purposes, ask questions, or a line of questions, to try to establish or undermine a point, it is generally accepted that a forensic pathologist must provide testimony that is

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defensible under professional and scientific standards applicable to pathologists.

40. In this case, testimony was given that allowed the suggestion that the data available during the post-mortem examinations could support the view that the victims were sexually assaulted by having their ears held during a genital-oral cavity assault, and by being penetrated anally. But none of the specific findings essential to forced oral or anal sex were present in this case, and as I have previously indicated, the statement that a victim had a "dilated anus" is itself insufficient to establish sexual assault.
41. While there was some qualification of the testimony given through the indication that no specific corroborating serological evidence was found in the victims indicating a sexual assault, an experienced forensic pathologist who had conducted post-mortem examinations into the death of children would know that specific artifacts and findings in the victims' oral cavity, as well as other findings elsewhere on the body, are usually used to provide corroboration for the opinion that there is evidence consistent with a sexual assault. There was no explanation here of what has been described in authoritative literature, and in documented cases involving sex abuse, as the indicia of a sexual assault in any of the three victims.
42. It has been reported to me that recent DNA testing of the anal, penile, and oral swabs of the victims in this case did not yield any specific evidence

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consistent with sexual abuse, with the exception of what counsel has described for me as an indication of some unknown DNA present on the penile swab associated with one of the victims. A number of explanations could be provided for these recent DNA test results, but, generally, they do support the view that there is insufficient evidence to state with any degree of confidence that there was a sexual assault that occurred here.

43. In addition, a close review of the photographic evidence indicates that the pathologist failed to detect, and explain, injuries that were clearly not associated with blunt force trauma, or with the use of a knife, in the manner suggested and stated during the course of Dr. Peretti's testimony.
44. For example, the injuries to the face of Christopher Byers appear to be the type that might be caused by a dog or a rodent in part because the small punctate wounds are consistent, and have a pattern. Also, some of the flesh has been pulled away from the body in a manner consistent with an animal chewing and removing flesh. A knife, or other cutting instrument, would not cause punctate pattern wounds nor the excision of tissue seen in many of the injuries present here.
45. I have explained to counsel that the timing of the injuries was not explained in a methodical way. There are several classes of injuries here, including likely pre-mortem injuries that show, in certain cases, sufficient evidence of bleeding to have occurred while the victim's heart was pumping. Other

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injuries occurred near death, as blood flow was diminishing, and still other injuries after death. In 1993, a reasonably experienced pathologist working on a case of suspected homicide would normally have carefully inventoried the appearance and classification of each injury in part so as to permit an explanation of the likely timing of the injury. In none of these reports was that done.

46. I have informed counsel that in my view, the medical examination of causes of injury and death in this case was generally inadequate. It is not possible, in my view, to review the available photographs, and the post-mortem examination reports, and arrive at the opinions stated by Dr. Frank Peretti in his testimony with a reasonable degree of medical certainty.
47. I recommended to counsel that additional information be obtained from the Office of the Medical Examiner, Arkansas State Crime Laboratory, including the obtaining of new tissue slides, and of any other evidence that would shed light on what evidence the Medical Examiner had to establish cause of death and mechanism of injury.
48. As previously indicated, I have been told by Mr. Philipsborn that other pathologists have reviewed this matter, and I have not reviewed their information or findings, with the exception of having been provided a "narrative report" identified as having been produced by Dr. Richard Souviron, Chief Odontologist with the Miami-Dade Medical Examiner's

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office. That report was sent to me by counsel in this case early in the year 2007 in response to my suggestion that additional specialists who have experience with various bite marks be consulted in the context of this case.

49. I have explained to Mr. Philipsborn, and would testify if called by the Court, that at this juncture Dr. Frank Peretti's testimony did not, in my opinion, provide scientifically defensible information to the court and jury in certain specific areas about which I am able to form opinions based on what data was presented to me. This includes his testimony about what evidence was consistent with a sexual assault on the one hand, as well as what evidence was consistent with a pattern injury left by a tool such as a knife.

50. I do not have sufficient data available to me to state with a reasonable degree of medical certainty whether the remains of the three boys had wounds caused by dragging the bodies over sharp objects or had any wounds caused by a knife. However, I do believe that a number of the wounds that Dr. Peretti generally described as consistent with knife wounds are neither described sufficiently in his autopsy report to be knife wounds, and, equally significantly, do not appear on photographs to be knife wounds.

51. Some of the injuries to the remains documented in the photographs do not appear to be knife wounds at all, but, as I have explained, are injuries

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caused by a mechanism that left a pattern consistent with animal predation.

52. Dr. Peretti did not make clear during the course of his testimony that the identification of causes of injury and death in children is considered to be an area of specialty, which required at the time of the autopsies in this case, and certainly in 2008, knowledge of pertinent scientific standards, and necessitated, wherever a forensic pathologist lacked the experience or training, consultation with a fellow professional with experience in pediatric pathology or in the post-mortem examination of children.
53. If called to testify in court, I would provide truthful and accurate testimony

about all the subjects that I have covered here."

Further the affiant sayeth naught.

IN WITNESS WHEREOF, I hereunto set my hand this 16th day of May, 2008.


DR. JANICE OPHOVEN

Subscribed and sworn to before me this 16th day of May, 2008.

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Darla C Czech
Notary Public

My commission expires: 1/31/2011

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