IN THE SUPREME COURT OF THE STATE OF MISSISSIPPI

JEFFREY HAVARD **APPELLANT**

v. **No. 2018-CA-01709-SCT**

STATE OF MISSISSIPPI **APPELLEE**

PRINCIPAL BRIEF OF APPELLANT
ORAL ARGUMENT REQUESTED

On Appeal from the
Circuit Court of Adams County, Mississippi
No. 02-KR-0141-J

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CERTIFICATE OF INTERESTED PARTIES

Pursuant to Miss. R. App. P. 28(a)(1), the undersigned counsel of record certifies that the following listed persons have an interest in the outcome of this case. These representations are made in order that the Justices of the Supreme Court and/or the Judges of the Court of Appeals may evaluate possible disqualification or recusal.

1. Jeffrey Havard, *Appellant/Trial Court Petitioner*
2. Graham P. Carner (Graham P. Carner, PLLC); Mark D. Jicka and Caroline K. Ivanov (Watkins & Eager, PLLC), *Counsel for Appellant/Trial Court Petitioner*
3. State of Mississippi, *Appellee/Trial Court Respondent*
4. Jim Hood, Jason Davis, Brad A. Smith (Office of the Mississippi Attorney General), *Counsel for Appellee/Trial Court Respondent*
5. The Honorable Forrest A. Johnson, *Senior Judge* (retired Circuit Court Judge for the Circuit Court of Adams County, Mississippi)
6. The Honorable Debra Blackwell, *Circuit Judge, Circuit Court of Adams County, Mississippi* (has assumed the position of Judge Johnson while this appeal has been pending)

So CERTIFIED, this the 18th day of September, 2019.

Respectfully submitted,

/s/ Graham P. Carner
Graham P. Carner,
Attorney for Appellant

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STATEMENT OF THE ISSUES

1. Did the Circuit Court err by granting only the partial relief of vacating Havard's death sentence and not also vacating the conviction and ordering a new trial, when the new evidence at issue had bearing on guilt/innocence issues and would dramatically alter the jury question if the case was tried again?
2. Did the Circuit Court commit error by admitting the opinions of the State's new expert, Dr. Scott Benton?
3. Did the Circuit Court err by excluding evidence that Chloe Britt was not sexually abused?

STATEMENT OF THE CASE

Nature of the Case and Course of the Proceedings Below

This is the appeal of a decision from a capital post-conviction proceeding that was remanded to the Circuit Court of Adams County, Mississippi for an evidentiary hearing on issues of newly discovered evidence. A brief summary of the entire history of Mr. Havard's case is recounted below.

In 2002, Havard was indicted for capital murder during the course of sexual battery and felonious child abuse in the Circuit Court of Adams County. Havard entered a plea of not guilty. Havard's jury trial began on December 16, 2002. The jury returned a verdict of guilty for capital murder on December 18, 2002. A sentencing phase followed, and the jury agreed to a sentence of death for Jeffrey Havard on December 19, 2002.

Havard appealed his conviction and sentence directly to this Court. The docket number of the direct appeal was 2003-DP-00457-SCT. Havard's direct appeal was denied, *Havard v. State*, 928 So.2d 711 (Miss. 2006), as was his motion for rehearing. Havard then sought relief

from the United States Supreme Court by petition for writ of certiorari, but the petition was denied, *Havard v. Mississippi*, 127 S. Ct. 931 (2007).

Havard then filed his first post-conviction petition in this Court. The docket number for the first post-conviction proceeding was 2006-DR-01161-SCT. Havard was denied post-conviction relief, *Havard v. State*, 988 So.2d 322 (Miss. 2008), as well as rehearing. No evidentiary hearing was held in the first state post-conviction proceedings.

Havard then commenced federal habeas corpus proceedings in the United States District Court for the Southern District of Mississippi, Western Division, the Honorable Keith Starrett, presiding. The Civil Action Number for the federal habeas proceedings is 5:08-cv-275-KS. The federal habeas case is currently stayed pending resolution of this matter.

While his federal habeas proceedings were ongoing, Havard filed his second post-conviction petition in this Court. The docket number for that post-conviction proceeding was 2011-DR-00539-SCT. Havard was denied post-conviction relief, *Havard v. State*, 86 So.3d 896 (Miss. 2012), as well as rehearing (though the original opinion of March 8, 2012 was slightly modified at ¶ 20 by the opinion dated May 10, 2012). No evidentiary hearing was held in the second state post-conviction proceedings.

After returning to federal court following denial of his second post-conviction petition, Havard uncovered the newly discovered evidence that underlies these proceedings. Havard filed his third post-conviction petition in this Court. The docket number for the third post-conviction proceeding was 2013-DR-01995-SCT. On April 2, 2015, this Court entered a unanimous Order remanding the case to the Circuit Court of Adams County for an evidentiary hearing "on the issues of newly discovered evidence presented in his application" filed with this Court. (R. at V. 1, pp. 1-2).

On remand, the parties engaged in discovery, including the designation of expert witnesses and other expert witness discovery. Prior to the evidentiary hearing, several motions were filed by the parties. The trial court held hearings on those motions on July 7, 2017. (R. at Supp. Transcript). One of the pre-hearing motions was filed by the State and sought to limit Havard's introduction of evidence that Chloe Britt was not sexually assaulted. (R. at V. 9, pp. 1228-43). Havard opposed the motion. (R. at V. 9-10, pp. 1304-65). The Circuit Court granted that motion. (R. at Supp. Transcript at pp. 31-32). Havard also sought to exclude opinions of the State's new expert witness, Dr. Scott Benton. (R. at V. 8-9, pp. 1121-1216). The Circuit Court deferred ruling on the challenges to Dr. Benton's qualifications and testimony until the evidentiary hearing. (R. at Supp. Transcript at pp. 29-30).

The Circuit Court of Adams County conducted the evidentiary hearing on August 14, 15, and 16 of 2017. Following the transcription of the hearing, the trial court received Proposed Findings of Fact and Conclusions of Law and supporting briefing from the parties. Those pleadings were filed simultaneously on May 18, 2018. (R. at V. 11, pp. 1517-26, Havard's Proposed Findings of Fact and Conclusions of Law; R. at V. 11, pp. 1527-77, Havard's Brief in Support of Proposed Findings of Fact and Conclusions of Law; R. at V. 11-12, pp. 1578-1658).

On September 14, 2018, the Circuit Court entered an Order that upheld Havard's conviction for Capital Murder but vacated his death sentence based upon newly discovered evidence presented during the evidentiary hearing. (R. at V. 12, pp. 1659-63). Havard timely filed a Motion to Alter or Amend Judgment on September 24, 2018. (R. at V. 12, pp. 1664-1723). That motion was denied on November 5, 2018.[1] (R. at V. 12, p. 1732, Order Denying Motion; R. at V. 16, pp. 498-512, Hearing on Motion).

This timely appeal by Appellant, Jeffrey Havard, followed. (R. at V. 12, 1737-38).

[1] Havard was re-sentenced by the Circuit Court of Adams County to life without possibility of parole. (R. at V. 12, p. 1739, Sentencing Order; R. at V. 16, pp. 518-19, Sentencing Hearing).

Facts

This post-conviction matter is primarily focused on new evidence related to Shaken Baby Syndrome (SBS), and particularly the changes in science that have taken place from the 2002 trial of Havard to the 2017 evidentiary hearing. The case hinges upon comparing what the 2002 jury heard with what a modern jury would hear. For this reason, the facts of the trial proceedings are set forth first, followed by the 2017 evidentiary hearing.

Havard's 2002 Capital Murder Trial and Death Sentence

On February 21, 2002, Jeffrey Havard was babysitting Chloe Madison Britt, the six month old daughter of his girlfriend, Rebecca Britt. At the time, the infant was suffering from an ear infection and a cough. Tr. at 344-45.[2] Except for the fact that Chloe had been fussy that evening, she was behaving normally. Tr. at 454-55. Around 8:00 p.m., Rebecca left the trailer home the couple shared and went to the grocery store, leaving Chloe in Havard's care. Tr. at 346-47. When she returned, Havard had given Chloe a bath and put her to sleep. Rebecca picked up Chloe, who made a noise in her throat, but, otherwise, the child appeared "normal" and asleep. Tr. at 346-47.

Rebecca left the house again to rent a movie and was gone about fifteen minutes. When she returned, she checked on Chloe again. Tr. at 348. At that point, the child was blue, and was not breathing. Tr. at 349. Rebecca performed CPR on the child but was unable to resuscitate her. Tr. at 349. She and Havard then took Chloe to the community hospital; the child was not breathing during the entire trip and Rebecca continued to administer CPR. Tr. at 356-57.

When Chloe arrived at the hospital, she was still blue, was not breathing, and did not have a pulse. Tr. at 372. Hospital personnel intubated the child, but Chloe never breathed on her

[2] References to the 2002 trial transcript are denoted as "Tr. at __." References to the 2017 evidentiary hearing transcript are denoted as "R. at V. __, p. ___" (referencing the volume number and page number of the appeal record). The 2017 evidentiary hearing transcript ranges from Volumes 13 through 16 of the record. The July 7, 2017 pre-evidentiary hearing motions hearing is found in the Supplemental Transcript portion of the record.

own again. Tr. at 373. Two nurses and two physicians testified for the State about the injuries they saw on Chloe's body that night in the emergency room. Tr. at 374-383. *See also Havard v. State*, 988 So.2d 322, 332 (2008). Nurses Angel Godbold and Patricia Murphy, and Drs. Laurie Patterson and Ayesha Dar, each of whom was with Chloe in the emergency room that night, testified that they saw some bruising on the inside of each of Chloe's thighs, as well as on her forehead. Tr. at 374, 393-95, 417-18. Dr. Dar observed "hemorrhages in [Chloe's] retina . . . which is so very specific of this kind of injury . . . [b]eing a shaken baby. **Nothing else causes that** . . ." Tr. at 416 (emphasis added). Dr. Patterson also noticed the retinal hemorrhaging, describing it as "indicative . . . of a shaken baby type thing . . ." Tr. at 407-408. ER Nurse Patricia Murphy also observed conditions that she said were "consistent with . . . Shaken Baby Syndrome." Tr. at 396.

Patterson, Dar, Godbold, and Murphy also testified about the abnormal appearance of the baby's anus, which was observed to be dilated following intubation. With the exception of Dr. Dar (who also noted the dilation), the three other ER witnesses said that Chloe's anus looked dilated to "the size of a quarter." Tr. at 377, 392, 406, 410. All four of these witnesses added that they had seen injuries to the anal area itself. The two doctors and Nurse Murphy testified that the condition of the child's anus indicated sexual trauma, and was consistent with a large object being inserted into the rectum. Tr. at 399-400, 407, 418. None of these medical providers were tendered by the State or qualified by the Court to provide expert testimony at trial.

Adams County law enforcement officers detained Havard almost immediately after the child's arrival at the hospital. *Havard v. State*, 928 So.2d 771, 778 (Miss. 2006). Havard gave an initial written statement to police, in which he wrote that while Chloe's mother was out at the grocery store, he gave the child a bath and put her to bed. Tr. at 455. The mother came home from the grocery store later and checked on the baby; she then left again to go the video store.

Tr. at 455. When she returned, according to Havard's first statement, Havard was in the bathroom, and he heard her start screaming because Chloe was not breathing. Tr. at 455. In that first statement, Havard did not tell police that he had accidentally dropped the child onto the toilet, her head hitting it, as he would state in a subsequent statement. Tr. at 455-56.

In that second statement of February 23, 2002, videotaped by law enforcement, Havard said that he gave the child a bath, and that she slipped out of his hands while he was drying her off; "her leg hit the lid on the toilet bowl, and I think her head hit the tank." Hearing Transcript Exhibit "I-I," Havard Interview at p. 5. Havard described the distance of the fall as approximately three feet, as he was standing up after removing Chloe from the bathtub." Hearing Transcript Exhibit "I-I," Havard Interview at p. 12. Havard picked her up after the fall, and Chloe "kind of gasped for air like I had scared her or something." Hearing Transcript Exhibit "I-I," Havard Interview at p. 5. He then "took her and . . . shook her," but "[not] hard," because he "was scared that he [had] hurt her [by dropping her onto the toilet]." Hearing Transcript Exhibit "I-I," Havard Interview at pp. 5-6, 12. Chloe began crying, and Havard put her on his shoulder, tried to comfort her, changed her diaper, and then put her to bed. Rebecca Britt returned soon after, but Havard did not tell her that he had dropped Chloe in the bathroom, because Havard thought "she would . . . fuss at me." Hearing Transcript Exhibit "I-I," Havard Interview at pp. 6-7. When law enforcement asked Havard whether he could explain the conditions reported by the emergency room staff regarding sexual battery, Havard, a 23 year old layman, said, "I can't explain [them]." Hearing Transcript Exhibit "I-I," Havard Interview at pp. 19, 25.

On February 22, 2002, Dr. Steven Hayne performed an autopsy on Chloe's body. Tr. at 429. Dr. Hayne's autopsy findings were "consistent with Shaken Baby Syndrome" (SBS). Transcript Exhibit "7," Final Report of Autopsy. The autopsy made no finding as to whether the

child was also a victim of sexual battery. *See Havard v. State*, 86 So.3d 896, 905 (Miss. 2012). The Death Certificate of Chloe Britt states that she died of "Subdural Hemorrhage" that was "Consistent with Shaken Baby Syndrome." (Transcript Exhibit "6").

Havard was eventually indicted for capital murder during the course of sexual battery and felonious child abuse. On September 18, 2002, defense counsel for Havard filed a "Motion for Independent Evaluation of Autopsy Report," which stated that "[d]efense counsels (*sic*) do not have any medical training and need assistance interpreting the autopsy in order to adequately prepare a defense for Jeffery Havard."

During the September 25, 2002 pre-trial hearing on the motion for an independent evaluation of Dr. Hayne's autopsy report, defense counsel pointed out their lack of medical training and knowledge, and that a defense expert was therefore necessary to interpret "what exactly the autopsy says concerning the baby's death." Tr. at 37. At the same hearing, defense counsel also moved for access to the child's medical records. Tr. at 38. Havard's attorney stated that "there are situations where shaken baby syndrome can be other things, and vice versa, of course, and to have those medical records would give us an indication as to whether or not there could be additional things or situations that may have caused the baby's death." Tr. at 37-38.

Arguing against defense counsel's motion for an independent expert, the prosecutor emphasized that "the State is not medically trained either and when we want to know what the autopsy report says or seek an explanation, we call Dr. Hayne and he discusses it with us. Dr. Hayne is not an agent for us, and Dr. Hayne is certainly available to the defense also to explain or discuss the report." Tr. at 40.

Later that day, September 25, 2002, the trial court ruled that Havard did not present the requisite basis for obtaining a medical expert to conduct an independent evaluation of the autopsy report. In its Order denying Havard an independent expert, the trial court agreed with the

State that "the report of Dr. Hayne, and any supplements, are in the possession of the defendant, and that Dr. Hayne is available to answer any questions that defense counsel may have of him." Tr. at 44. The court stated, "[u]nder discovery, whatever report of Dr. Stephen Hayne that he did or supplemental reports should already be provided to counsel, and also he's available if they see the need to go talk to him personally as the State would have, but the Court finds no basis or need on what's before the Court to seek out an independent medical expert, for the Court to do that and to appoint somebody to do that." Tr. at 44-45. The court did, however, order the medical records be turned over to the District Attorney as well as defense counsel. Tr. at 44-45.

Havard was initially indicted for capital murder during the course of two underlying felonies: felonious child abuse and sexual battery of a minor. However, on the eve of trial, the State moved to amend the indictment to drop the underlying felony of felonious child abuse. Tr. at 99. The defense did not object to the amendment of the indictment, and the trial court granted the motion. Tr. at 100-101.

Following the amendment of the indictment, the defense advanced a motion *in limine*, seeking to preclude evidence of Shaken Baby Syndrome, since felonious child abuse was no longer being advanced as an underlying felony. Tr. at 102. The defense urged that permitting testimony about SBS during the guilt phase would unfairly allow the State to present two underlying felonies to the jury but only have to meet its burden of proof as to the underlying felony in the amended indictment, that of sexual battery. Tr. at 102-103.

The State opposed the motion *in limine*. Tr. at 103. The State argued that "it would be incumbent upon us as an element of the crime [capital murder during the course of sexual battery] to prove that a murder resulted from that commission of that crime or while that crime was being committed or shortly there—or in the general vicinity or at the time that that crime was committed." Tr. at 103. The State continued, arguing that it was required to prove that "the

murder was committed and how it was committed while the crime of sexual battery was being committed." Tr. at 104.

The trial court granted the motion *in limine* in part and denied it in part. Tr. at 105. The court ruled: "[T]he State is still required to prove the element that the defendant did kill and murder the victim with or without design to affect death. Therefore, the State will be allowed to present any evidence of the matters referred to by defense counsel as long as they go to the manner or the cause of death." Tr. at 105-106. Thus, the trial court ruled that evidence presented at trial regarding SBS and similar issues was admissible to show manner and cause of death.

Havard's criminal trial began on December 16, 2002.

The State alleged that Chloe's sole cause of death was SBS, and the manner of death homicide; the bulk of the State's case was premised upon medical evidence, provided by Dr. Hayne and the two doctors and two nurses who were in the ER the night Chloe died. Tr. at 367-420.[3] Dr. Hayne was tendered by the State, without defense objection, as an expert witness, and the Court permitted Dr. Hayne to offer opinion testimony. The medical providers from the ER were not tendered or qualified as expert witnesses.

Dr. Hayne reiterated Dr. Patterson's testimony that, at the time of her death, the child had both retinal and brain hemorrhaging. Tr. at 407-408, 415, 420, 551-56. He also explained that the subdural hemorrhaging indicated that the child suffered from ripped "small bridging [blood] vessels,"[4] likely caused by the child being shaken violently. Tr. at 552. Furthermore, according to Dr. Hayne, the blood-pooling in the brain indicated trauma and injury. Tr. at 552. Dr. Hayne

[3] See detailed description of the testimony of these ER personnel, *supra*.
[4] Dr. Hayne explained that such "bridging" veins "go from the inner surface of the skull to the outer surface of the brain." Tr. at 552.

then asserted that the infant's symptoms – subdural hemorrhage[5] and retinal hemorrhage[6] –were "consistent with the shaken baby syndrome." Tr. at 556-57. Dr. Hayne described those symptoms as "the classic triad for shaken baby syndrome." Tr. at 556. Dr. Hayne further clarified: "It would be consistent with a person violently shaking a small child. Not an incidental movement of a child, but violently shaking the child back and forth to produce the types of injuries that are described as shaken baby syndrome, which is a syndrome known for at least forty-five years now. . . .We're talking about very violent shaking." Tr. at 556-57. He further explained to the court and the jury that the "classic triad for shaken baby syndrome" – the three primary indicators of SBS – is the presence of subdural hemorrhage, the presence of retinal hemorrhage, and the absence of other potentially lethal causes of death. Tr. at 556.

Dr. Hayne explained that his iteration of the diagnostic "triad" required both "inclusionary and exclusionary" thinking on his part. Tr. at 557. According to Dr. Hayne, the child's symptoms were exclusively diagnostic of SBS under the triad: "[b]oth inclusionary findings were present. The subdural hemorrhage, the retinal hemorrhage, and also there was an exclusionary component. **I did not find any other causes of death.**" Tr. at 557. (emphasis added).

Dr. Hayne described the injuries resulting from the shaking in this case as similar to those from "motor vehicle crashes, falls from significant heights and the like." Tr. at 557. He concluded that Chloe's death was a homicide caused by "violent shaking" committed by "another person". Tr. at 557. Dr. Hayne's testimony is devoid of any analysis of the accidental dropping of Chloe as described by Havard.

Dr. Hayne also provided testimony concerning sexual battery of the child. He testified that the child had a one-inch-long contusion on her rectum, which, he explained, was "consistent

[5] Subdural hemorrhage is bleeding beneath the dura matter tissue surrounding the brain.
[6] Retinal hemorrhage is bleeding in the retina of the eyes.

with penetration of the rectum with an object." Tr. at 546, 551. It should be noted that the autopsy report lists that contusion as measuring one centimeter. Dr. Hayne's 2009 deposition testimony in Havard's federal habeas proceedings confirms the one-centimeter measurement. (Transcript Exhibit "3," Hayne Depo. at p. 12). There was no semen found in the child's anus, and the rape kit found no identifiable foreign DNA on the child. Tr. at 535.

Dr. Hayne described other "significant" injuries he saw and photographed during his autopsy: bruises on the child's upper lip, forehead, and on the back of her head. Tr. at 548-51. Dr. Hayne did not testify that these other injuries contributed to his SBS diagnosis. Tr. at 548-51. He noted that "there were no contusions or bruises and no tears on the brain itself . . . [and] there were no [skull] fractures . . . [or] breaking of the bones composing . . . [any part of the skull]." Tr. at 554-55.

On his cross-examination of Dr. Hayne, defense counsel focused on the alleged sexual assault, and did not ask any questions about Dr. Hayne's conclusion that SBS caused the child's death. Tr. at 560-63. Defense counsel did not ask Dr. Hayne about the consideration, if any, he gave to Havard's statement describing Chloe's accidental head-first fall onto a hard surface (a porcelain toilet tank). Defense counsel's cross-examination of Dr. Hayne makes up two-and-a-half pages of the trial transcript. Tr. at 560-63.

The State presented witnesses to establish the fact that Havard was the only person who had the opportunity to assault the child. Tr. at 314-15, 345-48, 446. In closing, the prosecution stated, "[Havard was] the only person in the house with the baby. That's correct." Tr. at 609. There was, however, no medical testimony establishing a link between the time of any injury and the time of death.

In the defense's case-in-chief, counsel for Havard called no medical witnesses to address either the death of the child or the SBS diagnosis. The defense's single witness, Nurse Brian

Rabb, testified that he performed the collection of the rape kit from Havard, but did not know any of the results of the testing on it. Tr. at 578-81. Havard's entire case-in-chief consists of just over three transcript pages. Tr. at 578-81.

During closing argument, the State went to great lengths to work the finding of Shaken Baby Syndrome into the case. The State did so by concocting a theory that Havard had sexually abused Chloe and then intentionally shaken her to death to quiet her and cover up his actions. The State spoke of the finding of "retinal hemorrhage" and brain damage caused by Chloe's injuries. Tr. at 611. The State continued: "Remember the testimony of Dr. Hayne who told you that this baby died of head trauma of being shaken violently. A violent shaking would be the equivalent of being in a car wreck, of being dropped from a high height is the injury that this baby suffered to her head. Again shaken violently. And after having been sexually penetrated." Tr. at 611-12. The prosecutor concluded the first part of the State's closing argument: "This baby was shaken to death having been sexually assaulted, and ladies and gentlemen, don't try to understand it. Don't try to figure out how it could have happened. Just know what did happen and render your verdict of guilty of capital murder because that's what this man is over there for doing that to this child." Tr. at 612.

Following the defense's closing argument, the State concluded the guilt phase with the second part of its closing argument. The prosecutor again mentions "what Dr. Hayne said would have to happen for this shaking to cause the injuries that baby had," another reference to the alleged force of the shaking described by Dr. Hayne. Tr. at 624. The State then states its overall theory of capital murder, including cause and manner of death and the relation to the alleged sexual battery:

> [H]e hurt that child more than he intended to in this sexual battery. He hurt her. Your heard him talking about how she was injured in her rectal area, and what does a child do—what's the only defense an infant baby has got when something like that happens to them? They scream. They don't just cry, folks. They scream

> in pain. When they're in pain, they scream. And what's he going to do then? She's screaming. He's injured her. Stop her. I got to stop her from screaming. Well, he stopped her all right. She ain't screaming now. And then what does he do? Now, he's not only injured her rectally, but he shook her so hard that results in her death.

Tr. at 626.

The jury returned a verdict of guilty for capital murder (murder during the commission of sexual battery) on December 18, 2002 and agreed to a sentence of death for Jeffrey Havard on December 19, 2002. Tr. at 692-93.

The 2017 Evidentiary Hearing

At the post-conviction evidentiary hearing in 2017, Mr. Havard presented three types of newly discovered evidence. He presented the new testimony of Dr. Steven Hayne, in the form of opinions not held or expressed by Dr. Hayne at the time of trial. Havard presented newly discovered pathology evidence, either unpublished or underdeveloped at the time of his trial. He also presented evidence of the dramatic shifts regarding SBS that have occurred between 2002 and 2017 in the fields of forensic pathology and pediatrics. Havard further presented new biomechanical evidence not available at the time of trial, which refutes Dr. Hayne's 2002 testimony.

Dr. Steven Hayne's 2017 Testimony

At the 2017 post-conviction hearing, Dr. Hayne's testimony was markedly different from his 2002 trial testimony. He testified that on July 22, 2013, he signed an affidavit that stated, "Recent advances in the field of biomechanics demonstrate that shaking alone could not produce enough force to produce the injuries that caused the death of Chloe Britt." (R. at V. 13, p. 24;

Transcript Exhibit "4," Hayne Affidavit at p. 2[7]). Dr. Hayne testified in 2017 that Chloe Britt's medical findings must have included impact or blunt force trauma. (R. at V. 13, p. 25).

Dr. Hayne also confirmed that the diagnosis of Shaken Baby Syndrome is "probably not correct." (R. at V. 13, p. 28). He further acknowledged that a short fall can generate tremendous force (R. at V. 13, p. 28), and that he understood this new knowledge about short falls to have arisen since 2002. (R. at V. 13, p. 32-33). Dr. Hayne agreed that since 2002, a robust debate has arisen in the medical literature about Shaken Baby Syndrome. (R. at V. 13, p. 54). He further agreed that he would not use SBS as a diagnosis in 2017. (R. at V. 13, p. 54).

Dr. Hayne testified to none of this at Havard's 2002 trial. Again, he testified that the sole cause of death was violent, intentional shaking, with such force that it could not have been accidental.

Forensic Pathologist Dr. Michael Baden's Testimony

Dr. Michael Baden is board-certified in Anatomic, Clinical and Forensic Pathology and has been so qualified since 1966. He has authored more than 80 scientific publications, received numerous professional and academic honors, served in leadership positions in professional organizations, and conducted many high-profile death investigations. (Transcript Exhibit "8," Baden CV). Dr. Baden has worked for and with many different stakeholders in the criminal justice system, including the Chief Medical Examiner's Office in New York City, the New York State Police, various academic institutions, and defense attorneys. (R. at V. 13, pp. 62-70). He testified that he has much more frequently worked with prosecutors than defense attorneys. (R. at V. 13, pp. 69-70). Dr. Baden differentiated the work of a forensic pathologist from a pediatrician, explaining that while pediatricians may have experience treating children's various injuries and

[7] It appears that this page is missing from the appeal record. However, the contents are confirmed in Hayne's testimony.

illnesses, forensic pathologists are experts in determining cause of death in children. (R. at V. 13, p. 70). He explained this is a significant and important difference. (R. at V. 13, p. 70).

Dr. Baden examined the autopsy and medical records of Chloe Britt, as well as the statements of witnesses in the case. (R. at V. 13, pp. 73-74). He arrived at a cause and manner of death determination, as well as opinions about forensic pathology and medical advancement as it related to SBS and Chloe Britt specifically. (R. at V. 13, pp. 74-75). Dr. Baden concluded that Chloe died from a blunt force impact to the head. (R. at V. 13, p. 77). He disagreed with Dr. Hayne's trial testimony that Chloe died from violent shaking, calling such testimony "speculative entirely." (R. at V. 13, p. 79). Dr. Baden explained that he personally never subscribed to the SBS hypothesis, but that it was generally accepted at the time of trial in 2002. (R. at V. 13, p. 82)

Dr. Baden testified that the medical findings Chloe Britt exhibited could have been caused not just by shaking, but by "dozens and dozens of other methods, some sinister and some innocent." (R. at V. 13, p. 85). He characterized Dr. Dar's testimony that retinal hemorrhages are diagnostic of SBS as "outrageous." (R. at V. 13, p. 85). He explained that many pathologists like Dr. Hayne believed in 2002 that shaking could be diagnosed reliably when they saw particular autopsy findings in the brain and that many pathologists did not understand the importance of impact to such findings until many years later. (R. at V. 13, p. at 86). Dr. Baden testified that the explanation offered by Mr. Havard—a fall from his arms in a confined space onto the floor—was a reasonable explanation for Chloe's death, and he saw no reason to disbelieve Mr. Havard's account of the fall. (R. at V. 13, p. 87)

Dr. Baden explained that medical literature polling physicians shows that about 40% of pathologists agree now that SBS can be diagnosed based on the triad, but his expert opinion is that the number of endorsers of that belief was much higher in 2002. (R. at V. 13, p. 102-103).

He articulated that he believes medical examiners must be independent from police, investigators, and prosecutors and come to their own scientific conclusions. (R. at V. 13, p. 91). He expressed concern about the role of pediatricians in SBS cases, because they are not well-versed in death investigations the way a pathologist would be. (R. at V. 13, p. 98).

Pediatric Forensic Pathologist Dr. Janice Ophoven's Testimony

Dr. Janice Ophoven testified on behalf of Mr. Havard to the changes in the medical community regarding SBS, and her expert pathology opinions about the facts of the case. Dr. Ophoven is a Pediatric Forensic Pathologist. She is board-certified in Anatomic Pathology and Forensic Pathology and has been so qualified since 1981. Further, she received training in pediatrics and practiced in pediatrics, making her one of the few pathologists fully trained in pediatrics. (R. at V. 14, pp. 160-63).

Dr. Ophoven has authored over 25 scientific publications, held leadership positions in numerous appointments, and has over 30 years of experience. (Transcript Exhibit "11," Ophoven CV). In addition, she has given over 100 presentations, including presentations to law enforcement, medical groups, and child abuse programs. (R. at V. 14, p. 171). Dr. Ophoven has worked with various actors in the criminal justice system and has worked almost exclusively with law enforcement and prosecutors for the first half of her professional consultant work. (R. at V. 14, pp. 173-174). She has testified in the past on behalf of both the prosecution and defense. (R. at V. 14, p. 174).

Dr. Ophoven reviewed Chloe Britt's medical records beginning with birth, the autopsy report and slides of tissue samples, trial testimony, reports, deposition testimony, witness statements, and photographs of Chloe and the scene. (R. at V. 14, p. 191). She reached a cause and manner of death determination, as well as opinions about SBS as a diagnosis and how that has changed since 2002. Dr. Ophoven concluded that Chloe died from complications of hypoxic

injury to the brain associated with a history of a fall. (R. at V. 14, p. 210). She testified that the manner of death was undetermined but consistent with an accident. (R. at V. 14, p. 211). Indeed, Dr. Ophoven testified at the hearing that there was significant missing evidence from the autopsy – specifically, a section of dura, sections of the frenulum, and sections of bruises. (R. at V. 14, p. 209). Those pieces of tissue "should have been taken and examined." (R. at V. 14, p. 209).

Dr. Ophoven stated that in 2002, SBS was at its peak, or in its "heyday" and was being diagnosed frequently. (R. at V. 14, p. 215). Unlike Dr. Baden, Dr. Ophoven was a proponent of SBS in the past and revised her opinion as the literature developed. (R. at V. 14, pp. 230-231). Dr. Ophoven now states that the theory that violent shaking causes brain damage is no longer a reliable conclusion. (R. at V. 14, p. 232). When asked if she agreed with Dr. Hayne's testimony regarding diagnosis at trial, she responded, "absolutely not." (R. at V. 14, pp. 204). She explained that there is no longer disagreement that SBS is a controversial diagnosis and among her peers of forensic pathologists, the diagnosis has been set aside. (R. at V. 14, pp. 204). She saw no evidence that Dr. Hayne considered or testified to any alternative causes of death. (R. at V. 14, p. 206).

Dr. Ophoven disagreed with Dr. Dar's trial testimony that nothing but SBS causes retinal hemorrhages. (R. at V. 14, p. 202). She stated that she knew of over 25 conditions known to occur with retinal hemorrhages and that retinal hemorrhages are not diagnostic of trauma at all. *Id*. She further stated that in the last ten years, evidence that retinal hemorrhages are an indicator of SBS, as doctors testified at trial, has been set aside. (R. at V. 14, p. 203).

Dr. Ophoven testified that falls can result in traumatic brain injuries (R. at V. 14, p. 247) and that in fact, the most common cause of brain trauma in children under age four is falls. (R. at V. 14, p. 248).

Biomechanical Engineer Chris Van Ee's Testimony

Mr. Havard called Dr. Chis Van Ee to testify as a biomechanical engineer. Dr. Van Ee's specific area of expertise is "Impact Biomechanics." (R. at V. 14, pp. 282-283). Impact Biomechanics examines the body's response to impact. Specifically, biomechanics study how the force of impact is transmitted through the components of the body, and "the relationship between injury and the exposure in terms of forces or acceleration that a person experiences." (R. at V. 14, pp. 283-84). As reflected in his curriculum vitae, Dr. Van Ee is one of the preeminent biomechanical researchers in this arena. Transcript Exhibit "20". The State accepted Dr. Van Ee as an expert in the field, and his reports were accepted as exhibits. (R. at V. 14, pp. 290-291; Transcript Exhibits "21" & "22").

Dr. Van Ee's testimony addressed two questions from a biomechanical standpoint: (1) Has the science of short falls and shaking changed since Mr. Havard's trial in 2002; and (2) Could the fall that Mr. Havard reported shortly after the incident have been responsible for Chloe's fatal head injury, and could it have been caused by shaking? (R. at V. 14, p. 293).

A. The science of short falls and shaking has changed since Mr. Havard's 2002 trial.

Dr. Van Ee addressed the first broad question – has the science with respect to shaking changed since Mr. Havard's trial – in depth. Dr. Van Ee testified at length about the development in research regarding the types of injuries that can occur from short falls, injuries that often mimic those thought to have been caused by shaking. (R. at V. 14-15, pp. 296-320; Transcript Exhibits "20" through "28").

Dr. Van Ee testified that the <u>first</u> study that compared short falls with shaking was published in 2003 by Dr. Prange – after Mr. Havard's trial. (R. at V. 14, pp. 297-298; Transcript Exhibit "23"). This study – the first of its kind – revealed that the risk for head injury due to head acceleration is lower for shaking than it is for a one-foot fall onto carpet. (R. at V. 15, p.

304). Dr. Van Ee explained further that the study showed that "angular acceleration from an impact is always much greater than that that occurs during a shaking." (R. at V. 15, p. 305).

Following Dr. Prange's study (again, published after Mr. Havard's trial), Dr. Van Ee's laboratory collected data to examine linear acceleration as opposed to rotational. (R. at V. 15, p. 308). That study, published in a 2014 book by Dr. Jan Leetsma, compared shaking, falls from varying heights, concussions for football players, and car crashes with and without injuries, and revealed that "shaking is a relative low exposure for the head." (R. at V. 15, p. 310).

Dr. Van Ee also testified about a study he did in 2009 based on a recreation of a twenty-two-month old child who fell off a play structure and suffered subdural and retinal hemorrhaging and brain swelling, and ultimately died. (R. at V. 15, p. 312; Transcript Exhibit "25"). The child experienced a short fall onto carpet over concrete in a garage. *Id.* Notably, Dr. Van Ee testified that the child's injuries were similar to Chloe's injuries. *Id.*

Dr. Van Ee went on to testify about a 2007 case study wherein the researcher, Paul Steinbok, examined bona fide accidents (i.e., there was an eyewitness to the child's fall) as opposed to abuse, and the children suffered injuries that were previously thought to be caused only by Shaken Baby Syndrome. These non-abusive fall injuries included retinal hemorrhages, subdural hematoma, and diffuse subarachnoid blood. (R. at V. 15, pp. 313-314; Transcript Exhibit "24"). Another study, published by Dr. Lantz and Dr. Couture in 2011, analyzed an infant's stairway fall. (R. at V. 15, pp. 319-320; Transcript Exhibit "26"). There, the infant suffered bilateral retinal hemorrhages, extravascular blood, optic nerve sheath hemorrhages, and other injuries. Dr. Van Ee pointed out again that these studies demonstrate that falls can produce the same injuries as seen in Chloe, and can produce injuries that were previously thought to have happened only with abuse. (R. at V. 15, pp. 314, 320).

Each of the studies discussed by Dr. Van Ee at the hearing was available only after Dr. Prange's 2003 groundbreaking publication comparing shaking and short falls. Havard was tried in 2002 – before any of this research was published or available. (R. at V. 14-15, pp. 298, 318, 321). This collection of studies published after 2003 informed Dr. Van Ee about the particular issue that was central to Havard's conviction, and led to Dr. Van Ee's (and the biomechanical community's) conclusion that "[A] short fall can result in head injuries commonly associated with abuse, including subdural hemorrhage, retinal hemorrhage, and edema." (R. at V. 15, p. 312). As such, the scientific, biomechanical understanding of shaking as compared to short falls has changed significantly since Mr. Havard's trial.

B. Chloe's injuries are more consistent with a short fall than with shaking.

With respect to the second question (Could the fall that Mr. Havard reported shortly after the incident have been responsible for Chloe's fatal head injury, and could it have been caused by shaking?), Dr. Van Ee testified as to his detailed analysis and evaluation. First, Dr. Van Ee conducted a scientific analysis and determined that the three-foot fall height as described by Mr. Havard was consistent with the evidence. (R. at V. 14, p. 295-296). Specifically, Dr. Van Ee testified that, if the fall happened as Mr. Havard described, i.e., if he were holding Chloe's head at his shoulder level and dropped her such that she hit the toilet and fell to the floor, she would have fallen about three feet. (R. at V. 14, p. 296-297).

In light of this analysis and his comprehensive review of the relevant biomechanical research published since Mr. Havard's trial, Dr. Van Ee testified that Mr. Havard's statement of what happened in Chloe's fall would be biomechanically consistent with Chloe's intercranial injuries. (R. at V. 15, pp. 322-323). Specifically, Dr. Van Ee testified that if Chloe fell and hit her head on the porcelain toilet, she "could have levels of head accelerations that could give [her] a subdural hematoma or a subarachnoid hemorrhage." (R. at V. 15, p. 323). Regarding whether

shaking could cause the type of injuries Chloe suffered, Dr. Van Ee explained that the fall described by Mr. Havard "is going to produce more head acceleration than even a violent shaking." *Id.* And with the current scientific understanding of short falls versus shaking, Dr. Van Ee testified that the fall is a more "logical scientific" explanation than the testimony about violent shaking elicited at Mr. Havard's 2002 trial. *Id.*

Dr. Scott Benton

The State called one witness in the 2017 evidentiary hearing, Dr. Scott Benton. Benton testified over the continuing objection of Havard, who sought to exclude Benton's opinions due to lack of qualifications and because Dr. Benton's methodologies and opinions are scientifically unreliable. The reasons why Dr. Benton's opinions should have been excluded are set forth below. Further, much of Dr. Benton's testimony actually supported Havard's request for post-conviction belief, as set forth in Section I of the Argument section, below. In short, Dr. Benton believes that Chloe Britt died from blunt force trauma, and not from shaking alone. Dr. Benton acknowledges that blunt force trauma can have many causes and that short falls can be fatal. While Dr. Benton believes that Chloe Britt was abused, he does not account for admittedly possible accidental causes of her injuries and death.

The Circuit Court's Order

On September 14, 2018, the Circuit Court entered an Order that left standing Petitioner's conviction for Capital Murder but vacated the sentence of death based upon the new evidence that was presented to it. (R. at V. 12, pp., 1659-1663).

In that Order, the Circuit Court relied upon medical conditions of Chloe that were observed at the hospital on the night of her death but did not account for the ways that the new testimony shows those conditions did not support the State's theory of SBS and cause and manner of death at the 2002 trial. The Circuit Court also stated that Havard's conflicting and

contradictory statements supported upholding the conviction, but a review of those statements does not offer any insight into the issues of new evidence at the heart of this proceeding.

The Circuit Court's Order found that Dr. Hayne's 2002 trial testimony and 2017 were not significantly different and were reasonably consistent. The Court also found that Dr. Hayne's opinion as to cause and manner of death was unchanged. A plain reading of the 2002 trial testimony and the 2017 hearing testimony does not support this conclusion. Likewise, the Circuit Court found that, though there is present controversy regarding SBS that there was similar controversy in 2002. The record from the evidentiary hearing contradicts this finding. The Circuit Court Order finds that Havard is simply making a better argument, and not a new one. Yet again, the record shows that Havard is presenting new evidence that was completely unavailable to him in 2002.

The Circuit Court Order also finds Dr. Benton's testimony "credible," but fails to acknowledge how even many of Dr. Benton's opinions are vastly different from what the jury heard in 2002. Similarly, the Circuit Court defers to the judgment of the 2002 jury, while disregarding that these very proceedings are about what the 2002 jury did not hear.

Finally, the Circuit Court's Order is striking for what it does not include: any serious review of the new evidence that Havard presented. The names of the hree expert witnesses that Havard presented are not even mentioned. The medical literature that was admitted into evidence, which documents the drastic changes in SBS science from 2002 to 2017, is also not mentioned.

STATEMENT REGARDING ORAL ARGUMENT

Pursuant to MRAP 34(b), the Appellant requests oral argument. This is a complex case involving novel issues of scientific and medical consensus, changed testimony, and the appropriate application of Mississippi's post-conviction statutes in cases where new evidence is brought before the courts. Oral argument will assist the Court in evaluating these important issues.

SUMMARY OF THE ARGUMENT

1. The Circuit Court erred by granting Havard only the partial relief of vacating his sentence. Since Havard clearly convinced the Circuit Court that he was entitled to relief based upon new evidence, that relief should have been vacation of his conviction for capital murder. All of the new evidence that was presented was on guilt/innocence issues, and not sentencing issues. Shaken Baby Syndrome (SBS) evidence was presented during the guilt phase of the 2002 trial, not the sentencing phase. A simple comparison of the evidence the 2002 jury heard regarding SBS and the cause and manner of death and what was presented at the 2017 evidentiary shows that a jury hearing the new evidence would hear a substantially different case. The new evidence would dramatically alter the jury question. The new evidence, including the new opinions of even the State's experts that Chloe Britt died from blunt force trauma, comports with the defense theory of an accidental fall. By contrast, all the jury heard in 2002 was that Chloe Britt died from violent shaking alone, and that the injuries she had could not have been caused by an accident. A jury hearing the case today would be told the exact opposite: Chloe did not die from shaking alone, her injuries and death could have been the result of an accidental fall, and expert analysis supports Havard's description of a three-foot headfirst fall onto a hard surface.

2. The Circuit Court abused its discretion by admitting the expert opinions of the State's new expert witness, Dr. Scott Benton. Dr. Benton, a pediatrician, is not a forensic pathologist or biomechanical engineer. He has no training or experience in those specialized areas. Further, Dr. Benton's methodologies and opinions are scientifically unreliable. Dr. Benton should not have been permitted to testify at the 2017 evidentiary hearing.

3. The Circuit Court abused its discretion by excluding all evidence on the issue of sexual battery. The Circuit Court ruled that it lacked jurisdiction to hear any evidence regarding that topic, but this Court's remand order placed no such limits on the Circuit Court. The sexual abuse allegation was linked to the Shaken Baby Syndrome issues by the State during the 2002 trial. The horrific allegation—now universally found by all experts in this case to be incorrect—tainted the entire case, including the medical and legal investigations of Chloe Britt's death. Evidence on this issue was clearly relevant and should have been admitted.

STANDARD OF REVIEW

In a post-conviction proceeding, the petitioner bears the burden of proving his grounds for relief "by a preponderance of the evidence." *Miss. Code Ann.* § 99-39-23(7). Long ago, this Court defined preponderance of the evidence as "the superior or greater weight of the credible evidence – 'evidence more convincing to the jury as worthy of belief than that in opposition thereto, or as such evidence as, when weighed with that opposed to it, has more convincing force.' In other words, that evidence which, by comparison with the other evidence, has more convincing force and outweighs the other as to the probabilities." *Gregory v. Williams*, 203 Miss. 455, 468 (Miss. 1948).

Denial of post-conviction relief following an evidentiary hearing is reviewed for clear error. *Johns v. State*, 926 So.2d 188, 194 (Miss. 2006). In doing so, this Court "must examine the entire record and accept that evidence which supports or reasonably tends to support the

findings of fact made below, together with all reasonable inferences which may be drawn therefrom and which favor the lower court's findings of fact…." *Thorson v. State*, 76 So.3d 667, 674 (Miss. 2011).

Questions of law are reviewed *de novo*. *Id.*

"The standard of review for the admission or exclusion of testimony is abuse of discretion. The admission of expert testimony is left to the sound discretion of the trial judge." *City of Jackson v. Estate of Stewart*, 908 So.2d 703, 708 (Miss. 2005).

ARGUMENT

I. THE CIRCUIT COURT ERRED BY NOT GRANTING HAVARD A NEW TRIAL, WHEN THE NEWLY DISCOVERED EVIDENCE HAD BEARING ON GUILT/INNOCENCE ISSUES AND WOULD DRAMATICALLY ALTER THE JURY QUESTION IF THE CASE WAS TRIED AGAIN USING THE NEW EVIDENCE

The primary error of the trial court is a legal one. The court, after a three-day evidentiary hearing, found that that the new evidence warranted post-conviction relief. But, then, the court granted only partial relief. The court upheld the capital murder conviction but vacated the death sentence. The Circuit Court's failure to vacate Havard's conviction is an error subject to de novo review. The trial court also made factual errors (chiefly by ignoring much of the new evidence put in front of it and generically affirming Havard's conviction).

For a post-conviction petitioner to succeed on a claim of newly discovered evidence, "the petitioner must prove that new evidence has been discovered since the close of trial and that it could not have been discovered through due diligence before the trial began." *Crawford v. State*, 867 So.2d 196, 203-4 (Miss. 2003) (citing *Meeks v. State*, 781 So.2d 109, 112 (Miss. 2001) and *Smith v. State*, 492 So.2d 260, 263 (Miss. 1986)).

In *Crawford*, this Court also enunciated the materiality standard: to succeed in obtaining relief based on *Miss. Code Ann.* § 99-39-5(1)(e), a "petitioner must show that the newly

discovered evidence will probably produce a different result or induce a different verdict, if a new trial is granted. This requires a showing that the evidence is material and is not merely cumulative or impeaching." *Crawford*, 867 So.2d at 204 (internal citations omitted). *See also Entrenkin v. State*, 134 So.2d 926, 927 (Miss. 1961) (evidence is material if it "give[s] rise to **grave doubts** of [the defendant's] guilt ... or raise[s] a **reasonable probability**, that if presented in a new trial, it would cause a jury to reach a different verdict") (emphases added); *Hannah v. State*, 943 So.2d 20, 25 (Miss. 2008) (holding that it was reasonable to conclude the outcome of a jury trial would be different with the introduction of new evidence that raised reasonable doubt of the defendant's guilt).

In *Hunt v. State*, 877 So.2d 503 (Miss. Ct. App. 2004), the Mississippi Court of Appeals reviewed a trial court's decision to not order a new trial following an evidentiary hearing. This is precisely the issue before this Court. In *Hunt*, new evidence was presented at an evidentiary hearing that starkly contrasted with the evidence heard in the original trial. *Id.* at 507-10. Nevertheless, the trial court judge denied the post-conviction relief requested. *Id.* at 510. On appeal, the Court of Appeals reviewed the trial court's decision for abuse of discretion and ruled that a new trial should have been granted. *Id.* at 514. The *Hunt* court said: "Ordering a new trial is not to be undertaken lightly….Still, if these witnesses are called at a new trial, and if their testimony is similar to what was presented in the record that is now before us, **a much different case will exist for a jury**." *Id*. (emphasis added). With the new evidence that was not available at the original trial, "**the jury issue is dramatically altered."** *Id.* (emphasis added). In the end, the Hunt court found that "[t]he new evidence raises too many significant questions about whether a mistake was made for us to permit this conviction to stand." *Id.* This Court declined the State's request for certiorari review of the Court of Appeals' decision. *Hunt v. State*, 878 So.2d 66 (Miss. 2004).

The 2002 trial of Jeffrey Havard and the 2017 evidentiary held before the Circuit Court is a study in contrasts. In 2002, the jury heard from one expert witness on medical issues, Dr. Steven Hayne, the state's expert. In 2017, the Circuit Court heard expert testimony from Dr. Hayne as well as four additional expert witnesses, three of whom were called by Havard. In 2002, Havard had zero expert assistance, having been denied access to independent experts. But the biggest contrast is between the evidence presented in 2017 and how it was vastly different than what the 2002 jury heard.

The jury never heard experts say that Chloe's death could have been an accident. The jury never heard experts say that retinal hemorrhages could have a cause other than shaking. The jury never heard experts say that Chloe's intracranial bleeding could have had innocent causes. The jury never heard experts give innocent explanations for the marks on Chloe's body, which were called (but not scientifically verified to be) bruises.

The jury never heard that Chloe's medical findings could have occurred at any time other than when she was alone with Jeffrey Havard. The jury never heard any expert say that Chloe's medical findings could have been caused by a fall. In fact, they heard the exact opposite: Chloe's injuries and death were the result of deliberate and intentional shaking only, and could not have been caused by an accident, unless that accident was a violent car crash or a fall from an extreme height.

The jury never heard any expert give any innocent explanations for Chloe's medical findings (including the bruises on which the Circuit Court relies heavily in its Order, despite Dr. Ophoven's testimony explaining how such bruises are frequently misinterpreted by those who do not know how to properly evaluate them). Indeed, the jury never heard any expert testimony on behalf of the Defendant, because Defendant's request for expert assistance was denied.

All of the potentially incriminating pieces of evidence mentioned by the Circuit Court in its ruling cannot be divorced from the new evidence that Chloe's death could have been accidental. They cannot be interpreted as separate from the new findings. The significance of these allegations is completely different when viewed through the lens of medical evidence that is, at worst, inconclusive yet also largely exculpatory. But, most importantly, it must be remembered that the jury never heard any of this. If they did today, the jury question would be dramatically altered. This meets the legal standard for this Court to grant a new trial.

Havard has far surpassed his burden of a mere preponderance of the evidence. Both his conviction and sentence should be vacated, and a new trial should be ordered so that a jury can hear all of the evidence and decide the case based upon actual facts and real science.

A. Havard Met His Burden of Proving the Change in Science Surrounding Shaken Baby Syndrome That Entitles Him to a New Trial

Shaken Baby Syndrome and, more specifically, the practice of diagnosing SBS based only on certain limited observations has been discredited. Biomechanical research has determined that shaking produces less head acceleration than a short fall, making a short fall a more logical cause of intercranial injuries. (Transcript Exhibit "21," Van Ee Report at p. 5; R. at V. 15, pp. 321-323). Many doctors no longer accept SBS as a viable diagnosis. (R. at V. 13, p. 113-114). In fact, leading medical organizations have rescinded their previous views that SBS is a sound medical diagnosis. Cindy W. Christian, Robert Block and the Committee on Child Abuse and Neglect, *Abusive Head Trauma in Infants and Children*, 123 Pediatrics 1409, 1410 (2009) (Transcript Exhibit "15"). Former supporters of SBS now refer to the syndrome as Abusive Head Trauma ("AHT"). Cindy W. Christian, Robert Block and the Committee on Child Abuse and Neglect, *Abusive Head Trauma in Infants and Children*, 123 Pediatrics 1409, 1410 (2009). *See* Appendices A-C, Timelines of Significant SBS Research and Publications.

Courts are recognizing this shift as well. In a Supreme Court case dealing with an SBS diagnosis, Justice Ginsburg's dissenting opinion stated that "[i]n light of current information, it is unlikely that the prosecution's experts would today testify as adamantly as they did in 1997.… What is now known about SBS hypotheses seems to me worthy of considerable weight in the discretionary decision whether to take up this tragic case." *Cavazos v. Smith*, 132 S. Ct. 2, 10-11, 181 L. Ed. 2d 311 (2011) (Ginsburg, J., dissenting).

In 2008, one the first major appellate decisions recognizing a shift in science surrounding the diagnosis of SBS/AHT was published. *State v. Edmunds*, 746 N.W.2d 590 (Wisc. Ct. App. 2008). That decision recognized that "significant and legitimate debate in the medical community has developed in the past ten years over whether infants can be fatally injured through shaking alone, whether an infant may suffer head trauma and yet experience a significant lucid interval prior to death, and whether other causes may mimic the symptoms traditionally viewed as indicating shaken baby or shaken impact syndrome." *Id* at 596. The Wisconsin Court of Appeals further recognized "the debate between the defense and State experts reveals a fierce disagreement between forensic pathologists, who now question whether the symptoms [the decedent] displayed indicate intentional head trauma, and pediatricians, who largely adhere to the science as presented at Edmunds's trial. However, it is the emergence of a legitimate and significant dispute within the medical community as to the cause of those injuries that constitutes newly discovered evidence." *Id.*

Another significant decision is *People v. Bailey*, 47 Misc. 3d 355 (Co. Ct. 2014), *aff'd*, 144 A.D.3d 1562, 41 N.Y.S.3d 625 (N.Y. App. Div. 2016) from the State of New York. At Rene Bailey's 2002 trial, doctors testified that she must have murdered a child in her care when that child presented at the hospital with retinal hemorrhage, malignant cerebral edema, and subdural and subarachnoid hematoma. Even though another child in the day care had seen

the decedent fall from a chair, physicians claimed—in keeping with medical belief at the time—that the decedent had been shaken to death. The trial court held a post-conviction hearing in 2014, during which new medical experts explained that shaking was an unlikely cause of the child's injuries, that the short fall could explain all of the injuries, and that changes in the science meant that witnesses would not testify in the same manner in 2014. Indeed, at the post-conviction hearing, witnesses for the State agreed that it was no longer accurate to claim, as doctors did at trial, that nothing but shaking could have caused the decedent's medical findings. The trial court reversed her conviction in 2014, finding that "the mainstream belief in 2001–2002, espoused by the Prosecution's expert witnesses at Trial, that children did not die from short falls, has been proven to be false." *Id.* at 370.

A similar case from Texas is *Ex parte Henderson*, 384 S.W.3d 833 (Tex. Crim. App. 2012). Cathy Lynn Henderson was convicted of murdering an infant in her care and sentenced to death after expert witnesses at trial insisted that her account of the injuries (that they had resulted from an accidental short fall onto a concrete floor) was "false and impossible." *Id.* at 833-34. At a post-conviction evidentiary hearing in her case, the pathologist who conducted the original autopsy told the court that given the advances in science, he could no longer testify that the injuries to the decedent occurred as a result of intentional abuse rather than a short fall. *Id.* Henderson was granted a new trial. *Id*. at 834.

In 2016, the Washington Court of Appeals overturned Heidi Fero's 2003 conviction after finding that the result of her trial would probably be different if the current generally accepted medical evidence had been available at time of trial. *In re Fero*, 367 P.3d 588 (Wash. Ct. App. 2016). In that case, Fero was convicted of injuring a child in her care. Medical witnesses at trial claimed that the retinal hemorrhages, subdural hematoma, and cerebral edema had to have been caused by abuse (specifically, "severe shaking") and could not have been caused by a short fall

or another child. *Id.* at 146-48. They offered extreme examples of the kind of shaking force required to cause such medical findings; for example, one claimed the force of Fero's attack had to have been "equivalent of being ejected from a motor vehicle and smashing [the infant's] face into a bank." *Id.* at 148. They claimed nothing but shaking could have caused her medical findings. *Id.* at 147. At a post-conviction hearing, witnesses, including Dr. Ophoven, testified that between the time of Ms. Fero's 2003 conviction and the post-conviction hearing in 2015, the medical and scientific knowledge had evolved to a point that cast great doubt on the propriety of Ms. Fero's conviction. At the post-convictoin hearing, Dr. Ophoven explained, "since 2003, it has become generally accepted in the medical community that falls from chairs and similar heights can cause the same subdural hematoma, cerebral edema, and retinal hemorrhages in children." *Id.* at 151. The court ruled for Ms. Fero: "[Fero] argues that the paradigm shift in the medical community's understanding of "shaken baby syndrome" and head trauma in children, as described in the declarations of Dr. Barnes and Dr. Ophoven attached to her petition, constitute new "material facts" satisfying the standard for her release under RAP 16.4(c)(3). We agree and grant her petition." *Id* at 151-52.

A timeline of cases involving grants of relief in SBS cases from around the country is attached as Appendix D.

At the time of Mr. Havard's trial, the vast majority of the medical community did not question the validity of SBS. *State v. Butts*, 2004 Ohio 1136, ¶¶ 26-29 (Ohio Ct. App. 2004); John Lloyd et al., *Biomechanical Evaluation of Head Kinematics During Infant Shaking Versus Pediatric Activities of Daily Living*, 2 J. Forensic Biomechanics 1 (2011). The SBS hypothesis was at its peak in 2002. (R. at V. 14, p. 215). Very little research had been done challenging shaking, and very few experts were questioning whether shaking could even cause the injuries associated with SBS. (See Appendix A: Timeline of Research Challenging Shaking). Of the five

studies available in 2002 that questioned SBS, three were published only the year before Mr. Havard's trial. *Id.* Duhaime's 1987 study is still consulted by biomechanical engineers even today and is considered a landmark study. (Transcript Exhibit "21," Van Ee Report at p. 6; R. at V. 15, p. 384). This research was the first that looked carefully at whether shaking could be a viable mechanism for the triad injuries; it found that shaking was an unlikely mechanism for the findings that had been attributed to it. AC Duhaime et al., *The Shaken Baby Syndrome: A Clinical, Pathological and Biomechanical Study*, 66 J. Neurosurgery 409 (1987). Dr. John Plunkett's 2001 article "Fatal Pediatric Head Injuries Caused by Short Distance Falls," focused on 18 case studies of deaths resulting from closed head injuries after falls under three feet. J. Plunkett, *Fatal Pediatric Head Injuries Caused by Short Distance Falls*, 22 Am. J. Forensic Med. & Pathology 1 (2001). Pre-2003 studies that questioned the validity of SBS, such as Duhaime's 1987 study and Plunkett's 2001 study, were set aside and discounted as misguided medical research. (R. at V. 14, p. 214). In 2002, the diagnosis of SBS was not debatable to the majority of specialists dealing with children with serious head injuries. (R. at V. 14, p. 215).

Although there were a few studies available in 2002 that questioned shaking as a mechanism, the majority of this research has been done *after* Mr. Havard's trial. (Appendices A-C). Indeed, in 2001, the official position of the American Academy of Pediatrics was that the traditional signs of SBS injury could not be caused by short falls but were caused by shaking. Today, well-respected experts from a broad range of academic and professional specialties do not agree that shaking can be assumed based on a collection of non-specific findings, and state that what the medical community "knew" before, such as the diagnostic reliability of the triad, is significantly wrong. (R. at V. 13, p. 83-84, 99; R. at V. 14, p. 207; Transcript Exhibit "21," Van Ee Report at p. 6). The American Academy of Pediatrics revised its position in 2009 to

acknowledge these developments. The jury in Havard's trial was never told about this controversy because it did not exist to this extent in 2002.

The materiality of these developments to Jeffrey Havard's trial and conviction is indisputable. There was very little research for the defense to rely on in 2002, and there were very few experts available who could testify about the flaws the SBS theory presented. Even if the defense had been able to get such an expert, due to the lack of dispute about SBS, it is unlikely that the jury would have been convinced. In fact, in other SBS cases around that time experts like John Plunkett, who was the author of one of the only studies questioning SBS, testified. *State v. Butts*, 2004 Ohio 1136, ¶¶ 26-29 (Ohio Ct. App. 2004). Even with Dr. Plunkett testifying, most of these cases still resulted in SBS convictions due to the overwhelming number of medical experts challenging his theory. *Id.* The following quote from Butts illustrates the reception that those few experts who challenged SBS in 2002 (the same year as Havard's trial):

> Although appellant's expert testified that there is a scientific invalidity with the concept of shaken baby syndrome because one does not cause injuries usually associated with shaken baby syndrome by shaking a child, he admitted that his opinion is contrary to what has been taught in medical schools since 1972, is contrary to the views of the American Pediatric Academy and that an overwhelming majority of pediatricians disagree with his opinion….

Id. at ¶ 26.

The literature in the past decade has substantially shifted with research showing that shaking alone is highly unlikely to cause closed head injuries. This shift has been found by other courts to be newly discovered evidence. *State v. Edmunds*, 746 N.W.2d 590, 599 (Wisc. Ct. App. 2008). ("It is the emergence of a legitimate and significant dispute within the medical community as to the cause of those injuries that constitutes newly discovered evidence."); *In Re Fero*, 367 P.3d at 594 ("[Fero] argues that the paradigm shift in the medical community's understanding of "shaken baby syndrome" and head trauma in children, as described in the declarations of Dr. Barnes and Dr. Ophoven attached to her petition, constitute new "material

facts"… We agree and grant her petition."); *State v. Bailey*, 47 Misc. 3d 355 (Co. Ct. 2014), *aff'd*, 144 A.D.3d 1562, 41 N.Y.S.3d 625 (N.Y. App. Div. 2016) (Monroe County Ct. Dec. 16, 2014) ("New research into the biomechanics of head injury reveals that the doctors who testified on behalf of the Prosecution at Trial misinterpreted the medical evidence to conclude that shaking, or shaking with impact, was the only mechanism capable of causing [the decedent's] injuries."). As these courts concluded, the controversy that now surrounds an SBS diagnosis is a significant, material change in evidence, and new a trial is warranted. Other courts around the country have reached similar conclusions. *See* Appendix D.

Recent biomechanical research has cast doubts on whether shaking as a mechanism can actually cause the injuries typically associated with SBS. Biomechanics is the study of mechanics of a living body, how force affects the body and the tolerance of the body to those forces. The State pointed out that biomechanical engineers cannot perform controlled experiments on living children. However, Dr. Van Ee dismissed this challenge, explaining that this is true of all biomechanical study, not just the study of child abuse, and biomechanical engineers have devised scientifically rigorous and highly accurate techniques to replace live experiments. (R. at V. 15, pp. 353-355). These techniques have been highly successful in improving safety of car seats, seat belts, bulletproof vests, helmets and more without unethical experimentation on living people. *Id.*

Biomechanical engineers, like Dr. Van Ee, have found that shaking is an unlikely mechanism for the types of head injuries typically associated with SBS. (R. at V. 14, p. 321; Transcript Exhibit "21, Van Ee Report at p. 5). *See* Waney Squier, *The "Shaken Baby" Syndrome: Pathology and Mechanisms*, Acta Neuropathologica 1 (Sept. 24, 2011). Engineers measure the acceleration seen in certain situations, like shaking, and the level of acceleration needed to cause injury. The threshold level of injury refers to this acceleration necessary to start

seeing injury. Below this threshold, injury does not occur. Threshold levels exist for everyone, including infants. These thresholds are "engineering judgment estimates" that are used "everyday in everything that we do from you getting in your car to putting astronauts on the moon to putting a helmet on your kid for football." (R. at V. 15, p. 346).

Biomechanical research has shown that the threshold level for an injury in an infant is higher than the rotational force achieved by shaking. (Transcript Exhibit "21, Van Ee Report at p. 5). This research has consistently shown that the level of rotational forces generated by shaking cannot come close to those needed to reach the injury thresholds, at least not without causing injury in the neck or spine first. *Id.*; FA Bandak, *Shaken Baby Syndrome: A Biomechanics Analysis of Injury Mechanisms*, 151 Forensic Sci. Int'l 71 (2005); SC Gabaeff, *Challenging the Pathophysiologic Connection Between Subdural Hematoma, Retinal Hemorrhage and Shaken Baby Syndrome*, 12 W. J. Emergency Med. 535 (2011).

The neck has a lower injury threshold than the head and shaking directly affects the neck. FA Bandak, *Shaken Baby Syndrome: A Biomechanics Analysis of Injury Mechanisms*, 151 Forensic Sci. Int'l 71 (2005). The acceleration and rotational force generated from shaking travels straight through the neck. *Id.* Studies have shown that violent shaking would cause injuries to the neck before brain injuries. MT Prange et al., *Anthropomorphic Simulation of Falls, Shakes and Inflicted Impacts in Infants*, 99 J. Neurosurgery 143 (2003) (Transcript Exhibit "23"). If shaking were to reach the threshold level for brain injury, it would first surpass the threshold level of neck injury. In cases like this, where there are no neck injuries, shaking is a highly unlikely mechanism. Dr. Baden stated that Chloe had none of the neck, chest, spine, or rib injuries that can be produced by shaking. (R. at V. 13, pp. 78, 101).

Dr. Hayne has backed off his diagnosis of SBS due, at least in part, to this research. He stated that "recent advances in biomechanics demonstrate that shaking alone could not produce

enough force to produce the injuries that caused the death of Chloe Britt." (R. at V. 13, pp. 24-25). Dr. Hayne's trial testimony that Chloe's injuries supposedly produced by shaking were parallel to a crash or long fall is false; the rotational forces produced in manual shaking are far less than a motor vehicle crash or a multistory fall. (Transcript Exhibit "21," Van Ee Report at p. 5). In fact, shear forces produced by shaking are less than that produced by a one-foot fall. (*Id.*). The risk for head injury due to head acceleration is lower for shaking than it is for a one- foot fall onto carpet. (R. at V. 14, p. 304).

Dr. Baden stated that shaking could not have caused the prominent bruising on Chloe and the subcutaneous bleeding she incurred. He stated that in his extensive experience, an impact is needed to cause these injuries, and all of the injuries misattributed to shaking could do so. Shaking alone could not cause the injuries. (R. at V. 13, p. 126).

At trial in 2002, all the State's expert and medical witnesses testified that shaking alone was the cause of Chloe's injuries. Now, no one says that. The State's new expert concedes that shaking alone could not cause Chloe's injuries and claims instead that she died as a result of blunt force trauma. Dr. Benton rejects Dr. Hayne's trial testimony that shaking alone caused Chloe's injuries and her death. (R. at V. 16, pp. 457-459).

Dr. Benton now acknowledges that, under current scientific knowledge, violent shaking alone did not cause Chloe's death (as the jury heard). He specifically rejects that shaking alone killed Chloe, saying that "I don't discount that *some shaking may have been involved*, but the death was from blunt force trauma." (R. at V. 16, p. 457) (emphasis added). This is an entirely different mechanism of injury than the jury considered at trial. Dr. Benton further acknowledges that the medical findings cannot determine what caused this blunt force trauma.

Blunt force trauma can and does occur in cases that have nothing to do with abuse. Havard told police how much he cared for Chloe, that he was taking care of her that night and

gave her a bath. (Tr. at 617). In the process of taking her out of the bath, she slipped from his arms and fell headfirst onto the porcelain toilet tank. *Id.* Chloe's head hitting the toilet tank is a form of blunt force trauma. (R. at V. 13, pp. 89-90). In 2002, the jury was told that an accidental short distance fall could not have caused her death. A jury hearing the case today would hear that Chloe's injuries and death could have been the result of a short, accidental fall.

At the time of Jeffrey Havard's trial, experts would be guided by the position statements of his or her professional organizations at the time. Notably, in 2001, the leading organization for medical examiners, the National Association of Medical Examiners (NAME) published a position paper on head injuries in children, endorsing SBS as a diagnosis. (R. at V. 14, pp. 215-216). This paper was withdrawn in 2006 after a NAME conference at which presenters clearly denounced SBS with talks including, "Where's the Shaking? Dragons, Elves, the Shaken Baby Syndrome and Other Mythical Entities." (*Id.*). As this demonstrates, after Mr. Havard's trial, leading medical associations and other previous proponents are now backing off of the diagnosis of SBS.

Similarly, in 2001, the American Academy of Pediatrics (AAP) endorsed a position paper supporting the SBS diagnosis. The State's sole expert, Dr. Benton, as a full fellow of the AAP, is guided by them. The 2001 AAP position paper on SBS asserted that "[r]etinal and vitreous hemorrhages and nonhemorrhagic changes, including retinal folds and traumatic retinoschisis, are characteristic of shaken baby syndrome." Committee on Child Abuse and Neglect, *Shaken Baby Syndrome: Rotational Cranial Injuries—Technical Report*, 108 Pediatrics 206, 207 (2001) (Transcript Exhibit "14" (hereinafter *Report)*. The paper also stated that "the constellation of these injuries does not occur with short falls, seizures, or as a consequence of vaccination." *Id.* at 206. This was the paper available and the position of the AAP during Mr. Havard's trial.

By 2009, the AAP position paper reflected a different reality. The diagnosis changed from SBS to Abusive Head Trauma (AHT), which opened up the diagnosis to mechanisms other than shaking. The paper acknowledged the controversy surrounding SBS and that those supposedly characteristic injuries can be caused by accidents. ("Controversy is fueled because the mechanisms and resultant injuries of accidental and abusive head injury overlap"), Cindy W. Christian, Robert Block and the Committee on Child Abuse and Neglect, *Abusive Head Trauma in Infants and Children,* 123 Pediatrics 1409, 1410 (2009) (Transcript Exhibit "15") (hereinafter *Abusive Head Trauma*). The 2001 statement that the triad does not occur in short falls is notably absent from the 2009 position paper.

Other experts who previously claimed short falls could not cause the death of an infant now admit that, although rare, short falls can indeed cause serious, even fatal, closed head injuries. *See, e.g.* David L. Chadwick et al. *Deaths from Falls in Children: How Far is too Far?*, 31 J. Trauma 1353 (1991) (Transcript Exhibit "16"). "When children incur fatal injuries in falls of less than 4 feet, the history is incorrect." David L. Chadwick et al., *Annual Risk of Death Resulting From Short Falls Among Young Children: Less Than 1 in 1 Million*, 121 Pediatrics 1213 (2008) (Transcript Exhibit "17") (after a database review, the authors found six cases of death from short falls and concluded that deaths from short falls are rare. This differs radically from the author's claim in the previous article that when caregivers report a fatal fall of fewer than four feet, the report must be incorrect).

Today, AHT encompasses many mechanisms other than shaking, such as impact. It is also known that other causes, both natural and accidental, can mimic the symptoms previously thought to be characteristic of shaking. *Abusive Head Trauma* at 1410. The State insists that the shift in terminology from SBS to AHT is a mere name change, and therefore insignificant, but that is incorrect. No matter what terminology the State chooses, at trial, the jury was clearly and

unequivocally told that the mechanism of Chloe's death **was shaking alone**. The jury was repeatedly told that **nothing** besides shaking causes the triad and was told that Chloe died from Shaken Baby Syndrome only.

Today, the State's expert says that Chloe died from blunt force trauma. Blunt force trauma can have numerous causes, including short accidental falls. AHT also includes blunt force trauma. Proponents recommended that doctors use the name AHT instead of SBS, in recognition of the substantial controversy surrounding SBS—controversy that was not recognized officially by the AAP until 2009, long after Jeffrey Havard's trial. *See* Transcript Exhibit "15," *Abusive Head Trauma* at 1410 ("Legal challenges to the term 'shaken baby syndrome' can distract from the more important questions of accountability of the perpetrator and/or the safety of the victim.").

This is critical because while violent shaking cannot be accidental, deaths and serious injuries *can result* from impact trauma related to various types of accidents, including short falls. It is only now, since new research has shown that a fall alone can indeed cause such injuries and death and that, biomechanically, such a fall is far more likely to produce such catastrophic results than mere shaking, that the State attempts to claim that it must have been blunt force trauma all along. But this is disingenuous; any discussion of blunt force trauma opens the possibility that a fall, rather than shaking alone, was the cause of death and entirely changes the picture presented to the jury in this case.

The triad that Dr. Hayne and the prosecution relied upon at trial is now universally rejected as a diagnostic standard. Dr. Ophoven stated that the triad is known to be a myth, and doctors need to look at many factors and possibilities to find the cause of an infant's death. (R. at V. 14, p. 226). The State's expert witness, Dr. Benton, agrees that the triad is not diagnostic of abuse. (R. at V. 15, p. 397). Dr. Benton stated that he is not aware of any board-certified child

abuse pediatrician who believes in the triad. (R. at V. 15, p. 379). In 2017, the medical community, including the State's expert witness at the evidentiary hearing, agreed that they cannot rely on the presence of the triad to diagnose anything. (R. at V. 15, p. 477). Dr. Benton stated that use of the triad to diagnose SBS cannot even be classified as bad science – it is not science at all. (R. at V. 15, p. 412). Dr. Hayne, however, clearly employed a diagnostic triad in his 2002 trial testimony. (Tr. at 557).

Over the past few years, more and more causes of retinal hemorrhages and subdural hemorrhages have been found. There are many natural causes of subdural and retinal hemorrhages. (R. at V. 13, pp. 85-86, 139; R. at V. 14, pp. 202-203). Doctors now know that diseases, accidents, and other causes outside of SBS cause injuries like those found in Chloe. *Id.*; GG Adams et al., *Appearance and Location of Retinal Hemorrhages in Critically Ill Children*, 97 Brit. J. Opthalmology 1138 (2013).

At Mr. Havard's trial in 2002, witnesses testified that retinal hemorrhages were characteristic of SBS. This was consistent with the state of medical and scientific knowledge at that time. The 2001 policy statement of the American Academy of Pediatrics (AAP) stated that retinal hemorrhages "are characteristic of shaken baby syndrome." *Report* at 207. This belief has changed. The 2009 AAP position paper, reaffirmed and still backed today, no longer has any reference to retinal hemorrhages. It now acknowledges the medical controversy and states that there are recognized mimics of AHT/SBS. In 2014, a New York court found that "in 2001, retinal hemorrhages were presumed to indicate rotational head injury, but by 2010, the American Academy of Pediatrics recognized that retinal hemorrhages can have many different causes." *New York v. Bailey*, Ind. No. 2001-0490 at 24 (Monroe County Ct. Dec. 16, 2014). The vast majority of the research establishing that retinal hemorrhages are not exclusively diagnostic

of shaking or abuse has emerged since Mr. Havard's trial. [See Appendix B: Timeline of Research on Retinal Hemorrhages Causes].

Reflecting that new research, Dr. Benton now disagrees firmly with Dr. Dar's trial testimony that nothing other than SBS causes retinal hemorrhages. (R. at V. 16, p. 468). Similarly, he rejects the use of the triad and stated that no one can make a finding of abuse simply relying on the triad because there is much more to investigate.

Likewise, Dr. Baden stated that recent literature has found that the presence of retinal hemorrhages is not proof that Chloe was shaken, as was testified to at trial, and can be found in short falls. (R. at V. 13, p. 87). Research since 2002 has shown that short falls, diseases, critical illness, and even CPR-CC could cause retinal hemorrhages. (See Appendix C). Dr. Ophoven testified that there are over 25 conditions that cause retinal hemorrhages. (R. at V. 14, p. 202). A doctor finding retinal hemorrhages in children no longer means that they can conclusively confirm abuse. Instead, doctors must investigate further.

In the years since Mr. Havard's trial, considerable research has been done on the consequences of short falls. In 2002, it was believed that a short fall could not cause the same injuries seen in SBS. In fact, in 2002, it was the formal position of the American Academy of Pediatrics that the kind of medical findings seen at Chloe's autopsy *could not be caused* by a short fall. (Committee on Child Abuse and Neglect, Shaken Baby Syndrome: Rotational Cranial Injuries—Technical Report, 108 Pediatrics 206 (2001)). When Mr. Havard went to trial there was very little research to back up his account of a fall. The prosecution dismissed his account as a lie and no one ever asked the doctors testifying at trial if the fall could have caused Chloe's death. At Mr. Havard's 2017 hearing, Drs. Baden, Ophoven and Van Ee, testified that falls can cause the medical findings reported in this case. Mr. Havard's account of an accidental fall can be supported by research that did not exist a decade ago.

Since the time of trial, short falls have been proven to cause serious and sometimes fatal head injury. PE Lantz & DE Couture, *Fatal Acute Intracranial Injury, Subdural Hematoma and Retinal Hemorrhages Caused by Stairway Falls*, 56 J. Forensic Sci. 1648 (2011) (Transcript Exhibit "13"). The triad and its elements (subarachnoid or subdural hemorrhages, retinal hemorrhages, and cerebral edema) have been found in deaths resulting from short falls. (Transcript Exhibit "21," Van Ee Report at p. 3. Falls, regardless of height, can have these serious consequences and so children should be evaluated for this possibility. (*Id.*). A child who falls even a few feet should be checked for serious head injury. Dr. Van Ee stated that while serious head injuries from short falls are rare, shaking would be a less likely cause for Chloe's injuries than the accidental short fall she sustained. (R. at V. 14, p. 303). Courts in other cases have recognized that the medical community has shifted dramatically on the topic of short falls. *Fero*, 367 P.3d at 593 ("Dr. Ophoven explains that since 2003, it has become generally accepted in the medical community that falls from chairs and similar heights can cause the same subdural hematoma, cerebral edema, and retinal hemorrhages in children."); *Bailey*, Ind. No. 2001-0490 at 22 ("The Court determines, however, that the Defense established that the mainstream belief in 2001-2002, espoused by the Prosecution's expert witnesses at Trial, that children did not die from short falls, has been proven to be false.").

Dr. Baden stated that all of Chloe's injuries could be attributed to a short fall as described by Mr. Havard. (R. at V. 13, p. 86). In his professional opinion, all of the findings involving Chloe are consistent with a short fall and are not consistent with SBS. (*Id.*). The fact that Mr. Havard described Chloe striking a hard surface (porcelain toilet) with her head is significant to the fall analysis in this case, as it is important in fall cases to determine what part of the body hit what type of surface. (R. at V. 13, p. 88). Dr. Baden testified that porcelain is "a very hard surface that would be much more likely to cause damage to the skin and brain than many other

surfaces." (R. at V. 13, p. 89). Dr. Hayne acknowledged the fact that short falls can cause serious closed head injuries and that there are tremendous forces produced in short falls. (R. at V. 13, p. 28). The State's only expert witness in this post-conviction proceeding, Dr. Benton, admitted that short fall deaths, although rare, can and do occur. (R. at V. 15, p. 394).

This acknowledgement of the potential lethality of short falls is based largely on new research published since trial. In 2002, short falls research was very limited. Dr. John Plunkett published his research in 2001, making it the most recent literature on short falls available at Mr. Havard's trial. Plunkett's research consisted of a case analysis of 18 documented short falls that resulted in death due to closed head injuries. J. Plunkett, *Fatal Pediatric Head Injuries Caused by Short Distance Falls*, 22 Am. J. Forensic Med. & Pathology 1 (2001). Dr. Plunkett's research, however, was not well accepted at the time of trial. An appellate court summarized these arguments in a 2003 case, writing that it was unconvinced by Dr. Plunkett's testimony, as Dr. Plunkett's views contradicted the majority view as well as what was being taught in medical school at the time. *State v. Butts*, 2004 Ohio 1136, ¶¶ 26-29 (Ohio Ct. App. 2004).

Courts in other jurisdictions have recognized the fact that a small number of largely ignored texts were published prior to 2002 does not undermine evidence of the significant shift in the medical community thereafter. Specifically, the court in *Bailey* stated, "The Court further determines that the availability of a text published in 2001 discussing the danger of falls does not undermine the Defendant's contention that there has been a sea change in medical belief regarding that danger." *Bailey*, 47 Misc. 3d at 370.

By 2017, the volume of research on short falls had grown tremendously. (*See* Appendix C: Timeline of Research on Short Falls). It is now widely acknowledged that short falls can and do cause substantial head injuries as well as death. A short fall like the one described by Mr. Havard cannot be summarily dismissed today. In fact, a fall like the one he described is more

likely to have caused the injuries to Chloe than violent shaking would have been. (Transcript Exhibit "21," Van Ee Report at p. 5; R. at V. 15, 305-306). If, as the State argues, shaking could produce these types of closed head injuries, then a short fall like the one described by Mr. Havard certainly could. (*Id.*) This is due to the fact that short falls, even those of only a foot, cause much higher angular accelerations than shaking does. (*Id.*) The 2002 jury was told that this was impossible.

To address Mr. Havard's claim that scientific advancement throws the testimony given at his trial into question, the state produced Dr. Scott Benton as an expert witness. Dr. Benton's testimony is radically different from what the jury heard from Dr. Hayne in 2002. Dr. Benton claimed under oath on March 9, 2017, that Chloe's cause of death was blunt force trauma. (R. at V. 16, p. 457). In August of 2017, he modified this opinion, testifying under oath that he agreed with Dr. Hayne. (R. at V. 16, p. 458). But upon further questioning it became apparent that he did not agree with Dr. Hayne's 2002 opinion; he agreed with Dr. Hayne's subsequently and newly discovered opinion. (R. at V. 16, p. 458). This opinion was, of course, never presented to the jury at trial. Dr. Benton agreed that the jury in 2002 never heard about impact. (R. at V. 16, p. 459). Dr. Benton also agreed that the triad Dr. Hayne used to determine cause of death and testified about in 2002 is not diagnostic of shaking. The jury heard the opposite at trial.

At the 2002 trial, the jury only heard that Havard killed Chloe Britt by violently shaking her. The jury heard that there could be no explanation for the medical findings other than violent, homicidal shaking. The jury heard from one expert witness for the state, Dr. Hayne. He testified that Chloe Britt died from violent shaking alone. (Tr. at 556). He based this opinion on a diagnostic triad, which he said included retinal hemorrhages, subdural hemorrhages, and an exclusion of other causes of death. (Tr. at 556-7). He described the etiology as "very violent shaking." (Tr. at 557). When asked to describe the violence involved in the shaking, Dr. Hayne

said, “the type of injuries that you can see that parallel these are in motor vehicle crashes, falls from significant heights and the like.” (Tr. at 557). He claimed that other medical findings on Chloe Britt’s body “were not participatory in the death of the child.” (Tr. at 558).

Other medical witnesses testified in Mr. Havard’s trial to their opinions about Chloe’s cause of death. Dr. Dar described shaking and told the jury that Chloe’s retinal hemorrhages were “so very specific of this kind of injury.” (Tr. at 415) and that there were no other explanations for Chloe’s retinal hemorrhages (“nothing else causes that” (Tr. at 416)). Dr. Patterson told the jury, “Retinal hemorrhaging is indicative in that age group of something like a shaken baby type thing where you actually caused so much force that you’re able to tear those vessels there that you see those plaques or pools of blood deep in the eyes.” (Tr. at 407-408). Nurse Murphy told the jury that Chloe’s cause of death was “consistent with the subdural hematoma or major head injury better known as shaken baby syndrome.” (Tr. at 394).

At directed verdict, the Court understood Dr. Hayne’s expert testimony, as well as the statements by other medical personnel, to indicate clearly that Chloe Britt died from brain injury as a result of violent shaking, as indicated by “unmistakable classic signs of retinal hemorrhaging and subdural hemorrhaging of the brain with the absence of any other explanation for death”. (Tr. at 571-72).

In the prosecutor’s closing arguments, he repeated Dr. Hayne’s speculation about force, that to cause Chloe’s medical findings, Mr. Havard must have shaken Chloe, and said that shaking must have been “the equivalent of being in a car wreck, of being dropped from a high height.” (Tr. at 612). The prosecutor said that “every one of our witnesses said immediately when they saw that child, they knew exactly what had happened.” (Tr. at 612).

The jury in Mr. Havard’s 2002 trial never heard that shaking was a controversial explanation for the medical findings seen in Chloe Britt. The jury never heard that similar

findings have been made in cases where there was no shaking at all. The jury never heard that there are many innocent explanations for what Dr. Hayne called "the classic triad for shaken baby syndrome." The jury never heard that the forces associated with manual shaking have been studied biomechanically and are less than those associated with a one-foot fall onto carpet.

The jury never heard about these alternative explanations because they were not generally known in 2002. The testimony given at trial was consistent with what was generally accepted in the medical community in 2002, and it was consistent with testimony given in criminal trials regarding Shaken Baby Syndrome at that time. But now this testimony is known to be wrong. Some of it is uncertain and would not be articulated with the same certainty at trial; other aspects of the testimony from the 2002 trial have been definitively proven false.

The shift in the medical literature and community is so substantial and dramatic that it meets the newly discovered evidence standard and entitles Mr. Havard to a new trial. In 2002, the jury was unaware that the opinion testimony they heard during the trial was controversial. Research now supports Mr. Havard's consistent account of accidentally dropping Chloe after taking her out of the bath.

Since the jury heard nothing about this, the evidence is not cumulative or impeaching. It is material to the issue as Mr. Havard was convicted of capital murder based on the theory that he shook Chloe to death. There is a probability that this information would change the verdict reached in this case. If even one juror questioned SBS at the end of trial, Mr. Havard would not have been convicted and given the death penalty[8]. As such, Mr. Havard is entitled to a new trial in order to present this newly discovered evidence to a jury.

The jury in his case did not receive all of the information because it was not known at trial. In the past decade, courts across the nation (*see* Appendix D) have recognized the new

[8] This Court has found that new evidence that introduces reasonable doubt into a case can be sufficient to warrant vacation of a conviction. *See Hannah v. State*, 943 So.2d 20, 25 at ¶ 10 (Miss. 2006).

scientific consensus and overturned convictions based on the now-discredited theories about SBS. Those courts have also recognized that these substantial developments necessitate a difference approach in SBS/AHT cases, including the assistance at trial of qualified experts. For instance, Epps was convicted at trial in 2007 and his case was overturned in 2016 because the court held that he was entitled to an expert due to the extreme controversial nature of SBS/AHT. The *Epps* Court said:

> There is a substantial risk of a miscarriage of justice where the jury heard no scientific or medical expert challenging the majority views on shaken baby syndrome and short falls, and where new research has emerged since the time of trial that would lend credibility to the opinion of such an expert.

Commonwealth v. Epps, 474 Mass. 743, 770, 53 N.E.3d 1247 (Mass. 2016).

That sentence applies with equal force to the case of Jeffrey Havard. This new evidence warrants a new trial where a jury can hear all of the evidence and render a decision with complete information. Havard met his burden of proving by a preponderance of the evidence that he is entitled to a new trial, and the Circuit Court erred when it did not grant that relief.

Despite the showing that Havard made as detailed above, the Circuit Court upheld Havard's capital murder conviction. Instead, the Circuit Court entered partial relief by vacating the sentence only. However, the trial court's order denying guilt phase relief is infected by both factual and legal errors, as detailed below.

B. The Circuit Court's Factual Errors

The Circuit Court discounted or disregarded the volume of new evidence presented in the 2017 hearing by finding it meaningless in light of Chloe arriving at the hospital "bloodied, bruised, blue and not breathing for no apparent reason". (R. at V. 12, pp. 1659-1663). These conditions and their meaning were developed with credible evidence at the hearing, yet the Court's Order was silent in those respects.

Circuit Court Order Focus on Bruising

The Circuit Court placed emphasis on reports that Chloe arrived at the hospital "bruised". The record from the hearing contains facts and expert analysis establishing that the bruising did not support the State's SBS theory at the 2002 trial.

The following was established at the hearing with respect to "bruising":

- The marks seen in the photos were consistent with resuscitation. (R. at V. 14, pp. 197-198)
- The marks in the photos were inconsistent with a violent assault. (R. at V. 14, pp. 197-198)
- Some small bruises on Chloe's head could be consistent with an impact. (R. at V. 14, p. 198)
- Marks and bruises can occur at the time of death, right before it, and just after. (R. at V. 14, p. 212)
- To suggest that every mark or bruise seen at autopsy is somehow a reflection of mishandling is an incorrect interpretation. (R. at V. 14, p. 212)
- Coagulopathies (disorders of bleeding or clotting) can occur with prolonged resuscitation, which can make a body appear bruised. (R. at V. 14, p. 213)
- Bruises around Chloe's head "all entirely consistent with the falling on one's head under any circumstances." (R. at V. 13, p. 80)
- Bruises that appeared on Chloe's face are entirely consistent with resuscitation. (R. at V. 13, p. 80)
- With regard to bruising on thighs: "we have no idea whether that occurred during these procedures when there were a lot of things going on, or three or four or five

days earlier, because we can't tell just by visually just looking at a bruise of that nature whether it's fresh or whether it's a few days old." (R. at V. 13, p. 81).

Circuit Court Order Focus on Chloe Being Blue and Not Breathing

The Circuit Court found that Chloe was "blue" and that she was "not breathing for no apparent reason" upon arrival at the hospital. These factual findings have no relation to the question of whether Chloe died from intentional abuse or an accident.

In 2002, the jury was told that Chloe was cyanotic when she first arrived at the hospital. (Tr. at 372). "Cyanosis" means bluish discoloration, especially of the skin and mucous membranes, due to excessive concentration of deoxyhemoglobin in the blood, caused by deoxygenation. Simply put, Chloe was blue due to a lack of oxygen, which is not all surprising since she was not breathing upon arrival at the hospital.

The experts in this case do not dispute that Chloe's skin tone was blue. Further, there is no evidence in the record that cyanosis indicates child abuse. Rather, cyanosis is a ubiquitous response to lack of oxygen from any cause. There was no testimony at either the trial or the hearing about whether cessation of breathing is related to child abuse. The reasons why an infant might stop breathing are myriad; many are not abusive or even traumatic. It would be wrong for the court to assume child abuse simply because she stopped breathing.

Circuit Court Order Focus on Bleeding

The Circuit Court found that Chloe was "bloodied" upon arrival at the hospital. The only reference in the record to bleeding is from the frenulum, the tissue just under Chloe's upper lip. However, it was acknowledged even at the 2002 trial that this bleeding could have resulted from an accidental fall as described by Jeffrey Havard. (Tr. at 409).

Circuit Court Order Focus on Havard's Statements

The Circuit Court refers to Havard's "changing and conflicting statements" in upholding the verdict in this case. (R. at V. 12, p. 1659-1663). A summary of Havard's statements is as follows:

- Havard rode with Chloe to the hospital after her collapse (Tr. at 317)
- Havard agreed to waive his right to an attorney and spoke with law enforcement "freely and voluntarily." (Tr. at 469)
- Havard explained to the officers that he was caring for Chloe on the evening of February 21, 2002, while Rebecca Britt left the residence to purchase groceries. He explained that Chloe began to cry so he examined her diaper to determine if it needed changing; it did not. Chloe vomited and Havard decided to bathe her, thinking it might calm her. He bathed her, put lotion on her, and put her in a new diaper before placing her in her crib in the master bedroom. He went back into the living room. Later, Rebecca Britt returned home; Havard gave her money to rent a movie and she left again. Havard removed the bed linens from the bed in the master bedroom for washing and went into the bathroom. Rebecca Britt returned home. She knocked on the bathroom door to let him know she was there and then a short time later, he heard screaming that Chloe was blue and not breathing. Rebecca did CPR on Chloe and then Rebecca and Havard loaded Chloe into the car and took her to the hospital. (Tr. at 469-70).
- On February 21, Havard did not say anything about dropping Chloe. (Tr. at 471)
- On February 23, 2002, Havard requested to speak with Deputies Smith and Manley. Havard signed an advice of rights form before speaking with them. (Tr. at 500).
- Havard provided deputies with a written statement. (Tr. at 502-503).

- Havard agreed to provide a videotaped statement "freely and voluntarily, and he didn't have any objection to being videoed." (Tr. at 503).
- The written and videotaped statements were consistent with one another. (Tr. at 503).
- On February 23, Havard described the night of Chloe's collapse consistently with his February 21 statement except for the additional information about a fall. (Transcript Exhibit "I-I," Havard Interview at pp. 4-7).
- Havard described Chloe falling head first from approximately 3 feet onto the toilet tank. (Transcript Exhibit "I-I," Havard Interview at p. 5).
- Havard described Chloe gasping for air, at which point he shook her to revive her. She began to cry, so he thought she was ok. (Transcript Exhibit "I-I," Havard Interview at pp. 4-7).
- Havard didn't shake Chloe very hard. (Transcript Exhibit "I-I," Havard Interview at pp. 5, 12).
- Havard supported Chloe's head during this attempt to revive her. (Transcript Exhibit "I-I," Havard Interview at p. 13).
- Shortly after Havard dressed Chloe and put her in her bed, Rebecca Britt arrived home and checked on her. Chloe appeared well to Rebecca Britt and Havard believed Chloe was not seriously hurt. (Transcript Exhibit "I-I," Havard Interview at p. 23).
- Because Chloe appeared well at that time, Havard did not tell Rebecca Britt about the fall. (Transcript Exhibit "I-I," Havard Interview at pp. 23-24).
- Havard never told deputies he abused Chloe or mistreated her out of anger. He denied feeling frustrated. (Transcript Exhibit "I-I," Havard Interview at p. 18). He denied molesting Chloe. (Transcript Exhibit "I-I," Havard Interview at pp. 18, 25).

There is nothing in Havard's statements that should serve as the basis for denying Havard a new trial in this proceeding, which is focused on newly discovered evidence.

Circuit Court Order Findings Related to Dr. Hayne Testimony

The Circuit Court vaguely found that Dr. Hayne's 2002 trial testimony and 2017 hearing testimony were "reasonably consistent". (R. at V. 12, pp. 1659-1663). However, there are huge differences between the two, despite Dr. Hayne's attempts to waffle on the stand at the 2017 hearing. Dr. Hayne's Affidavits on these issues also stand in stark contrast to his 2002 trial testimony.

Given Dr. Hayne's credibility and methodology issues that have been demonstrated over the years, this Court should not so readily accept the equivocations in his 2017 testimony. *See, e.g.*, K.C. Meckfessel Taylor, et al., *CSI Mississippi: The Cautionary Tale of Mississippi's Medico-Legal History*, 82 Miss. L.J. 1271 (2013). The differences in Hayne's 2002 trial testimony and everything that has followed is reason alone to grant Havard relief, since Hayne was the only expert witness on these important medical issues that the jury ever heard.

A summary of Dr. Hayne's testimony from the 2002 trial is provided in the Facts section above.

Dr. Hayne now says that he would classify the cause of death of Chloe Britt as blunt force trauma, which includes many possible causes including an accidental fall. Further, Dr. Hayne acknowledges the advances in biomechanical science. These advances (as shown by Dr. Van Ee at the hearing) have proven that short, accidental falls (particularly onto hard surfaces) can produce forces sufficient to cause the types of injuries found on Chloe. Dr. Hayne agrees that those advances happened after the 2002 trial. (R. at V. 13, p. 33). Further, comparing the trial testimony of Dr. Hayne to much of the other evidence presented at the hearing, it is clear that much of what the jury heard from Dr. Hayne in 2002 is incorrect or incomplete. For

instance, Dr. Hayne testified to the diagnostic value of the classic SBS triad in 2002. None of the other witnesses support this, including Dr. Benton. The 2002 jury heard the gospel of the diagnostic triad. A modern jury would hear this is just bad science.

The most significant difference between Hayne's 2002 trial testimony and his 2017 hearing testimony is that his later testimony accounts for causes other than deliberate abusive behavior. Dr. Hayne's trial testimony specifically excluded the possibility of accidental causation.

The Circuit Court also erroneously concluded that Dr. Hayne "did not change his opinion with respect to the cause and manner of Chloe's death." (R. at V. 12, pp. 1659-1663). A simple comparison of Dr. Hayne's 2002 testimony (sole cause of death was violent, intentional shaking alone) and his 2017 testimony (cause of death was blunt force trauma, which has many causes) shows this conclusion is simply wrong.

The Circuit Court's Order found that Dr. Hayne testified differently with respect to Shaken Baby Syndrome after Havard's trial, in 2002.

In the Devin Bennett trial in 2002, Dr. Hayne was asked whether shaking alone could cause the injuries often associated with it. (R. at V. 13, p. 49). In response to this question, Dr. Hayne testified, "*It's accepted* although there was a debate in the literature the majority of views that shaking alone can produce these types of injures, the subdural hemorrhage and retinal hemorrhages. Though there's debate apart from the biomechanical section says that you cannot produce enough force to produce these injuries. You have to have a contact of impact injury in addition to shaking of forces. **That is not universally accepted but individuals who do believe that**." (R. at V. 13, p. 49) (emphasis added).

This testimony was not given at the Havard trial. Dr. Hayne at no time during the Havard trial acknowledged debate about shaking vs. impact, nor did he acknowledge this controversy.

Additionally, Dr. Hayne was giving testimony similar to that which he gave at the 2002 Havard trial at least as late as 2009. *See, e.g.*, (R. at V. 12, pp. 1696-97) (Christopher Brandon Transcript at 403-404). Dr. Hayne was also describing the constellation of findings including subdural hemorrhage and retinal hemorrhage as "Shaken Baby Syndrome" at least as late as 2009 in the Brandon trial.

Though he began to acknowledge "some debate in the literature" (R. at V. 12, pp. 1696, Brandon Tr. at 403) at some time after the Havard trial, at least as late as 2009, Dr. Hayne was describing "Shaken Baby Syndrome" as "the event in which a child is shaken without significant evidence of impacting a child's head into a hard surface." (R. at V. 12, pp. 1697, Brandon Tr. at 404). He described this as being a "force equivalent to, which is commonly described, as a motor vehicle crash." *Id.*

At least as late as 2009, Dr. Hayne testified that "the majority of the pathologists in this country" agreed with the above characterization of "Shaken Baby Syndrome." (R. at V. 12, pp. 1696, Brandon Tr. at 403).

At least as late as 2009, Dr. Hayne was testifying that the constellation of findings he described indicated a violent death. (R. at V. 12, p. 1698, Brandon Tr. at 405). He testified that the findings were not consistent with a 2.5 foot fall. (*Id*). He testified that a short fall would not cause similar findings. (R. at V. 12, p. 1699, Brandon Tr. at 406). In 2009, he testified that the 2001 article by John Plunkett existed, but claimed that the claim that a short fall could cause the findings commonly associated with shaking was "a disagreement with the vast preponderance of the literature." (R. at V. 12, p. 1714, Brandon Tr. at 421).

Finally, in 2009, Dr. Hayne testified that the medical findings associated with shaking would not be consistent with falling from a height of even five feet and that such findings were

associated with a violent, rather than accidental, death. (R. at V. 12, p. 1723, Brandon Tr. at 430).

If Dr. Hayne knew of the controversy at the Havard trial in 2002, he did not alert attorneys or the Court to it. He did not testify about it. He did not disclose it at all. Furthermore, prosecutors did not correct Dr. Hayne when he failed to disclose the controversy (if he or they were even aware of it at the time).

Circuit Court Order Discussion of SBS Controversy

The Circuit Court found that there is a current controversy over Shaken Baby Syndrome, but that this controversy was present in 2002 as well. (R. at V. 12, p. 1659-1663). This finding is contradicted by the record, which demonstrates that any controversy that existed in 2002 was not robust and that those who disputed SBS back then were discounted and considered to be on the fringes. In 2002, the medical establishment supported SBS as a valid diagnosis, supported the use of the diagnostic triad used in this case, and said that short accidental falls could not produce the injuries like those found on Chloe Britt (Dr. Hayne himself subscribed to this position and testified under oath about it at least as late as 2009). Those who disagreed were "wrong". That is no longer the case, as testified to at the 2017 hearing in this case.

At the time of trial in 2002, the official position of the American Academy of Pediatrics (AAP) was that the constellation of findings associated with SBS *did not occur* as a result of "short falls". The 2001 AAP position paper on SBS asserted that "[r]etinal and vitreous hemorrhages and nonhemorrhagic changes, including retinal folds and traumatic retinoschisis, are characteristic of shaken baby syndrome." Committee on Child Abuse and Neglect, *Shaken Baby Syndrome: Rotational Cranial Injuries—Technical Report*, 108 Pediatrics 206, 207 (2001) (Ex. 14 to HT). The paper also stated that "the constellation of these injuries does not occur with short falls, seizures, or as a consequence of vaccination." *Id.* at 206.

In 2009, the AAP changed its position. The diagnosis changed from SBS to Abusive Head Trauma (AHT), which opened up the diagnosis to mechanisms other than shaking. The paper acknowledged the controversy surrounding SBS and that those supposedly characteristic injuries can be caused by accidents. ("Controversy is fueled because the mechanisms and resultant injuries of accidental and abusive head injury overlap"), Cindy W. Christian, Robert Block and the Committee on Child Abuse and Neglect, *Abusive Head Trauma in Infants and Children*, 123 Pediatrics 1409, 1410 (2009) (Transcript Exhibit "15"). The 2001 statement that the triad does not occur in short falls is notably absent from the 2009 position paper.

In 2002, the National Association of Medical Examiners (NAME) said that household falls differed entirely from the "rotational forces" encountered in shaking and did not cause the same type of injury. Case et. al. *Position Paper on Fatal Abusive Head Injuries in Infants and Young Children*, 22 Am. J. Forensic Med. And Pathol. 112, 120 (2001) (Transcript Exhibit "12").

In 2006, the official position of NAME changed, and the above is no longer its position.

The following testimony from Dr. Baden illustrates the evolution of the SBS controversy:

> Q. Doctor Baden, you've talked a lot here today about changes in SBS science from December of 2002 to the present. How would you describe those changes to the Court?
>
> A. I think today there's a lot of disagreement with the way the diagnosis of Shaken Baby Syndrome was applied back in 2002. There's still controversy, but in my experience the controversy has shifted from being a small number of forensic pathologists to being the majority, maybe a slight majority, but more forensic pathologists I think now do not agree with the diagnosis with Shaken Baby Syndrome, and if there is an impact, the impact caused it, not Shaken Baby Impact.

(R. at V. 13, p. 113).

Significantly, the 2002 jury in this case heard NOTHING about ANY controversy about SBS. They heard nothing about the small, fringe group of scientists that contested the medical

mainstream's full support of SBS, the diagnostic triad, and the belief that short falls cannot kill. The jury certainly did not hear what the Circuit Court heard in 2017, which shows that SBS is now highly controversial and discounted by the great majority of forensic pathologists, that the triad as a diagnostic tool is not just bad science, it is not science at all, and that short accidental falls, especially onto hard objects like porcelain, can be lethal.

The Circuit Court erred when it fails to distinguish between the 2002 controversy about SBS and the 2017 controversy. Its error was compounded by the fact that the jury heard nothing about any controversy about SBS. A new trial should be granted so a jury can hear all of this evidence and make a decision based on all of the facts and a clear picture of SBS science and how it has evolved over the years.

Circuit Court Order Regarding New Evidence

The Circuit Court found that, in these proceedings, Havard makes a better argument[9], not a new one. (R. at V. 12, pp. 1659-1663). The record belies this finding.

Havard was erroneously denied access to independent experts in 2002. *See McWilliams v. Dunn*, 137 S. Ct. 1790 (2017). Thus, he was not equipped to make any significant scientific or medical "arguments". However, much of the information presented in the 2017 hearing was not available in 2002.

Most significantly, the changes in Dr. Hayne's opinions were not available in 2002, because they only changed after the 2002 trial. This is absolutely essential new evidence and not simply a different version of what was presented to the 2002 jury.

[9] The legal standard at issue has nothing to do with "arguments". The issue before the Circuit Court was whether there was newly discovered **evidence** that dramatically altered the jury question. Jeffery Havard has "argued" from the beginning of this case that Chloe died from an accidental fall. In 2002, there was no scientific or medical evidence available to him to back up that argument. He did not have expert assistance, but even if he had the state of the science and medicine at that time did not support a theory of accident. Today, the scientific and medical evidence greatly upports that theory, as detailed at the 2017 evidentiary hearing. Havard met his burden of showing he has new evidence that was not available at trial that dramatically alters the jury question.

Even if he had independent expert assistance, Havard could not credibly have presented the claim that Chloe's medical findings could have been caused by a fall from Mr. Havard's arms at trial because: (1) AAP's position at the time was that the findings could not be caused by short falls (Position statement, 2001) and (b) NAME's position at the time was similar. Both AAP's and NAME's positions have changed since 2002.

Indeed, nearly all of the biomechanical evidence presented to the Court was based on research conducted and published **after** the 2002 trial. Significantly, it was advances in biomechanics that caused Dr. Hayne to change his position with regard to SBS. Dr. Hayne agrees those changes occurred after Havard's trial. (R. at V. 13, p. 33).

Circuit Court Order Findings Related to Dr. Benton Testimony

The Circuit Court generically finds that the State's expert in this case, Dr. Scott Benton, is "credible". Havard would point to the Court that Dr. Benton is not qualified to render the opinions he provided in this case and that his methodology was flawed, as set forth in Section II below. However, even considering the myriad of issues with Dr. Benton's qualifications and methodology, there are many parts of his testimony that support Havard's position in these proceedings.

Dr. Benton disagrees with the unequivocal testimony about SBS given at trial. For instance, Dr. Benton states that testimony the jury heard about retinal hemorrhages was false. Dr. Benton agrees that accidental and abusive head injuries can overlap. Dr. Benton disagreed with Dr. Hayne's claim at trial that the triad means abuse. Indeed, Dr. Benton says that using a diagnostic triad, as Dr. Hayne unquestionably did in 2002, is "not even science". Dr. Benton agrees that the AAP's position has changed since the time of trial. (R. at V. 16, p. 469).

Dr. Benton agrees that a fall could cause blunt trauma to a child's head. While Dr. Benton ultimately rendered the conclusory opinion that Chloe was abused, he did not classify

any of Chloe's injuries as definitively abusive. This means they could have causes unrelated to intentional abuse. However, these medical findings were classified as abusive at Mr. Havard's trial, and no other explanation was offered for them.

Dr. Benton admitted that Dr. Hayne testified in 2002 that shaking was the sole cause of Chloe's injuries and death. He agrees that no one testified about impact at trial. Dr. Benton ultimately concludes that Chloe died from blunt head trauma and disagrees that shaking alone killed Chloe. This directly contradicts what the 2002 jury heard.

Dr. Benton testified that Chloe's medical findings had causes other than shaking. Dr. Benton made much of the "multiple planes" of Chloe's alleged bruises; however, these alleged injuries were not examined microscopically and thus could not be timed. Therefore, they cannot be attributed to actions by Mr. Havard. At trial, these medical findings were not deemed to be important or related to the cause of death. The State cannot now claim the opposite—that these are critical medical findings proving the cause of death—altering the theory of the case from that which was presented at trial.

The opinions held by Dr. Benton were not presented to the jury at trial.

Circuit Court Order Deference to 2002 Jury Findings

The Circuit Court found that the jury's Capital Murder verdict should stand, since the jury considered all evidence, including the reasonable inferences therefrom, weighed the evidence and credibility of the witnesses, and found Havard guilty of the crime. (R. at V. 12, pp. 1659-1663). This finding ignores what the 2002 jury did **not** hear that a modern jury would hear. That was the very purpose of the evidentiary hearing that the Circuit Court held. It is precisely this missing evidence that undermines the jury's verdict and warrants a new trial. It was clear error to not consider impact the voluminous new evidence would have on a modern jury.

The jury was told nothing but shaking causes retinal hemorrhages (Tr. at 415). The State's expert, Scott Benton, disagrees with this testimony (as do Dr. Baden and Dr. Ophoven). Dr. Benton also disagrees with the 2002 testimony of Dr. Dar and Dr. Patterson.

The jury was told that the triad of findings Dr. Hayne referenced was diagnostic of shaking. At the hearing, no witnesses agreed that was true. The jury was told that shaking alone caused Chloe's death. Now, no jury would hear this. While a jury may still hear testimony from experts like Dr. Benton that Chloe died as a result of abuse, it would also hear from experts like Dr. Baden, Dr. Ophoven, and Dr. Van Ee that all of the injuries and death could have been the result of an accidental fall. The jury question would not be about violent, shaking alone, as in 2002, but about blunt force trauma, which can be abusive or not abusive in nature.

The jury cannot make reasonable inferences from testimony which is false or uncontradicted. And the Circuit Court erred when it relied on the tainted evidence that produced the 2002 verdict to justify not ordering a new trial in light of all of this new evidence.

Circuit Court Order Ignores Most of the New Evidence Presented

Finally, the Circuit Court's Order ignores much of the evidence presented at the 2017 hearing. Indeed, the Order does not even mention the names of the three experts that Havard called: Dr. Michael Baden, Dr. Janice Ophoven, and Dr. Chris Van Ee. The Circuit Court's limited factual findings do not survive a clear error analysis when much of the new evidence presented to it was simply ignored.

C. The Circuit Court's Legal Errors

This Court unanimously remanded this matter for consideration of newly-discovered evidence claims related to Shaken Baby Syndrome and related issues.

The Circuit Court's Order is erroneous as a matter of law because it contains very little analysis of the newly-discovered evidence put forth by Havard. For instance, the Order does not

even mention the names of the three expert witnesses called by Havard: Dr. Baden, Dr. Ophoven, and Dr. Van Ee. The Order does not address the very issues for which remand was granted.

In addition, in upholding the conviction for Capital Murder but vacating the sentence of death, the Order disregards why and when the SBS evidence was presented in Havard's 2002 trial, and the significance that the evidence played in the underlying conviction.

All of the SBS evidence at issue in this case was presented during the guilt phase of the trial, and not in the sentencing phase. The sentencing phase testimony is found at Tr. 656-72. Thus, any doubts in the confidence of the jury's verdicts that arise on account of the new evidence presented at the 2017 hearing necessarily should be doubts as to underlying conviction.

This is particularly evident when considered in the context of how the 2002 jury came to hear the SBS evidence in the first place: the State insisted it was necessary evidence in the guilt phase, and the Court agreed.

Havard was initially indicted for capital murder during the course of two underlying felonies: felonious child abuse and sexual battery of a minor. However, on the eve of trial, the indictment was amended to drop the underlying felony of felonious child abuse. Tr. at 100-101.

Following the amendment of the indictment, the defense sought to preclude evidence of SBS. Tr. at 102. The State opposed that motion in limine. Tr. at 103. The State argued that "it would be incumbent upon us as an element of the crime [capital murder during the course of sexual battery] to prove that a murder resulted from that commission of that crime or while that crime was being committed or shortly there—or in the general vicinity or at the time that that crime was committed." Tr. at 103. The State continued, arguing that it was required to prove that "the murder was committed and how it was committed while the crime of sexual battery was

being committed." Tr. at 104. The court ruled that evidence presented at trial regarding SBS and similar issues was admissible to show manner and cause of death. Tr. at 105-106.

Throughout the guilt phase of the trial, the State weaved SBS into its theory of the case. The importance of SBS to the State's case, and to the jury's verdict, is reflected in the State's closing argument. The State did so by concocting a theory that Havard had sexually abused Chloe and then intentionally shaken her to death to quiet her and cover up his actions. The specific arguments are noted in the Fact section above, and are not repeated here.

In light of this history, it was legal error for the Circuit Court to rule that a new trial is not warranted in light of the new evidence presented at the 2002 trial. SBS infected the guilt phase of the trial. Havard met his burden of proving by a preponderance of the evidence that he is entitled to relief. The Circuit Court must have found that Havard met that burden, because it vacated the death sentence based upon the new evidence that was presented. The Circuit Court explicitly stated this: "[B]ecause of the new evidence, the Court did set aside the sentence of death and ordered a new sentencing hearing." (R. at V. 16, p. 517). But the relief that should have been granted, based upon the record developed at the evidentiary hearing, is for both the conviction and sentence to be vacated and a new trial ordered.

The new evidence presented at the hearing shows that Chloe's injuries were consistent with Havard's statement to law enforcement and could not have been caused by shaking alone. This is significant because violent, repetitive shaking does not happen accidentally, but blunt force injuries have many different causes, including accidents. The finding of shaking alone, as presented at trial, precluded a credible argument of accident. Now, the evidence presented at trial would be critically different, and the jury question would be dramatically altered. Because the mechanism of blunt force trauma includes injuries from falls, the State could no longer argue that Chloe's medical findings have no accidental explanation.

The State was able to produce a witness who believes that Chloe's injuries, while not solely attributable to shaking as presented at trial, were abusive. But that is not the standard. If a defendant was convicted of a shooting death and new evidence emerged that the victim in the case had not been shot, but had a different cause of death, the defendant would be entitled to have a new trial. That defendant would be allowed to test through the adversarial process any additional theory related to cause of death, regardless of whether experts at a postconviction hearing claimed the death, while not caused by shooting, was still a homicide. The same holds true here.

The new evidence presented here dramatically alters the jury question. Havard's capital murder conviction should be vacated and a new trial ordered. *See Hunt v. State*, 877 So.2d 503, 514 (Miss. Ct. App. 2004) (vacating a conviction when newly-discovered evidence would present "a much different case to the jury" than in the original trial in such a way that "the jury issue is dramatically altered").

The trial court's order also contains legal error because the Circuit Court imposed a higher standard on Havard than the law requires. Havard bears the burden of proving that he is entitled to relief only "by a preponderance of the evidence." *Miss. Code Ann.* § 99-39-23(7). The evidence produced by Havard at the 2017 hearing far outweighed that presented in opposition to his Petition. This Court should reverse the trial court's ruling that upheld the capital murder conviction.

II. THE CIRCUIT COURT COMMITTED ERROR BY ADMITTING THE OPINIONS OF THE STATE'S NEW EXPERT, DR. SCOTT BENTON

Prior to the evidentiary hearing, Havard moved to exclude the opinions and testimony of Dr. Scott A. Benton, the State's only expert, because he is unqualified to render opinions concerning the cause and manner of death and lacks training and experience in pathology and biomechanics. At the evidentiary hearing, the trial court concluded:

> Let the record show while the witness Doctor Benton is not a pathologist or a biomechanic engineer[,] he clearly has expertise in the field of children when generally referred to as Shaken Baby Syndrome and also injury from falls; therefore, the Court will accept him as an expert in the field of Child Abuse Pediatrics. This will be subject to objection. As a matter of fact[,] I'll grant the petitioner a continuing objection as to his testimony and opinions.

(R. at V. 15, P. 372). Dr. Benton proceeded to testify as to opinions and theories that should have been excluded under Mississippi Rule of Evidence 702. Specifically, he testified that he was to render opinions regarding "the cause and manner of death of Chloe Britt." (R. V. 15, P. 373). This followed a statement from the State at a hearing mere weeks before that "The State did not offer Doctor Benton to testify as to the cause and manner of death." (R. at Supp. Transcript at p. 28). Notwithstanding the State's inconsistent representations to the Court, Benton was allowed to provide testimony that included cause and manner of death.

Mississippi law requires the trial court to ensure that any proposed expert testimony satisfies Rule 702 of the Mississippi Rules of Evidence. *Univ. of Miss. Med. Ctr. v. Pounders*, 970 So.2d 141, 146 (Miss. 2007). Mississippi Rule of Evidence 702 states:

> "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand or to determine a fact in issue, a witness qualified as an expert of knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise, if (1) *the testimony is based upon* ***sufficient facts or data***, (2) *the testimony is the product of* ***reliable principles and methods***, *and* (3) *the witness has* ***applied the principles and methods reliably to the facts of the case***."

Miss. R. Evid. 702 (emphases added). Under this rule, trial courts are "charged with being gatekeepers in evaluating the admissibility of expert testimony." *Watts v. Radiator Specialty Co.*, 990 So.2d 143, 146 (Miss. 2008). Although a trial judge has great discretion to admit or refuse expert testimony, the decision of the trial judge should be overturned when it is found to be arbitrary and clearly erroneous. *Troupe v. McAuley*, 955 So.2d 848, 856 (Miss. 2007).

Mississippi adheres to the U.S. Supreme Court's decisions in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993), *Kumho Fire Co. v. Carmichael*,

526 U.S. 137, 143 L.Ed. 2d 238, 119 S. Ct. 1167 (1999), and their progeny. *Miss. Transp. Comm'n v. McLemore*, 863 So.2d 31, 39 (Miss. 2003). In order for expert testimony to be admissible, it must be both relevant and reliable. *Daubert*, 509 U.S. 592-94. This requires trial courts "to apply a two-pronged inquiry when evaluating the admissibility of expert testimony: (1) is the witness qualified, and (2) is the testimony relevant and reliable?" *Watts*, 990 So.2d at 146.

The issue of expert reliability is of the utmost importance. Expert testimony may be challenged for a failure to employ "the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kuhmo*, 526 U.S. at 152. *Kumho* emphasizes that the reliability inquiry must be specific:

> As we said before, the question before the trial court was specific, not general. The trial court had to decide whether this particular expert had sufficient specialized knowledge to assist the jurors in deciding the particular issues in the case.

Id. at 156. Additionally, an expert's "self-proclaimed accuracy" is insufficient to support his testimony; "nothing in either *Daubert* or the Federal Rules of Evidence requires the district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the experts." *Id.* at 157. Thus, an expert's methodology should tie his opinions to the evidence by a specific train of scientific evidence pointing to an opinion. *McLemore*, 863 So.2d at 31.

This Court also considers the *Daubert* factors when testing reliability of expert testimony, including: "whether the theory or technique can be and has been tested; whether it has been subjected to peer review and publication; whether in respect to a particular technique, there is a high known or potential rate of error; whether there are standards controlling the technique's operation; and whether the theory or technique enjoys general acceptance within a relevant scientific community. *McLemore*, 896 So.2d at 37 (citing *Daubert*, 509 U.S. at 592-94).

A trial court's decision to allow expert testimony should be overturned when the reviewing court "can safely say that the trial court abused its judicial discretion in allowing or disallowing evidence so as to prejudice […] the accused in a criminal case." *Sacks v. Necaise,* 991 So.2d 615, 622 (Miss. Ct. App. 2007) (quoting *Jones v. State,* 918 So.2d 1220, 1223 (Miss. 2005)).

i. The trial court abused its judicial discretion when it allowed Dr. Benton's testimony because he is not qualified to render opinions concerning cause and manner of death.

This case is focused on Shaken Baby Syndrome as it relates to *cause and manner of death*. Dr. Benton, who is not a forensic pathologist and lacks experience and training in determining the cause and manner of death, was the State's only expert and was not qualified to render opinions in this context. Furthermore, Dr Benton is also lacking in qualifications in the area of biomechanics (the study of the mechanical laws relating to the movement or structure of living organisms). While there are certainly areas in which Dr. Benton would qualify as an expert witness, in this particular case he was not qualified to render expert opinions under Rule 702.

Havard does not dispute that Dr. Benton is qualified in the field of pediatrics. Dr. Benton testified at the evidentiary hearing that he is a medical doctor specializing in pediatrics. (R. at V. 15, pp. 356-360). Dr. Benton testified that he is board certified by the American Board of Pediatrics in the areas of General Pediatrics and Child Abuse Pediatrics. (R. at V. 15, P. 359). However, Dr. Benton admitted that he is not a forensic pathologist. (R. at V. 15, P. 357); (R. at V. 15, P. 366). Despite Dr. Benton's self -proclaimed proficiency in histology, he admitted that he does not practice histology (the study of changes in body tissue). (R. at V. 15, 369). He has never performed an autopsy himself. (R. at V. 15, pp. 367-368). He has never removed a brain for examination. *Id.* Nor has he ever signed a death certificate in a case involving a murder, a

homicide or non-natural cause. (R. at v. 15, P. 368). Indeed, Dr. Benton admitted that forensic pathologists have tools that he does not have. *Id*.

Additionally, Dr. Benton is not an engineer, and he is not practiced in the field of biomechanics. (R. at V. 15, P. 367). Biomechanics is the study of the mechanical laws relating to the movement or structure of living organisms. The field of biomechanics has added greatly to the universe of Shaken Baby Syndrome knowledge and scholarship, especially since 2002 when Havard was convicted. Dr. Benton acknowledges that biomechanics is a reliable scientific field that contributes to SBS scholarship and understanding. (*See generally*, R. at V. 15, P. 384-388); (R. at V. 15, P. 384) ("I think biomechanical models are great"). He also agrees that there have been significant changes in the understanding of pediatric head injuries since 2002. (R. at V. 15, P. 459-460).

This case is focused on Shaken Baby Syndrome. Particularly, the case is focused on Shaken Baby Syndrome as the cause and manner of the death of Chloe Britt. In Havard's 2002 trial, the jury was told that the sole cause and manner of death was deliberate shaking alone – nothing else. Since that trial, the science of SBS has developed, particularly in the area of biomechanics. (*See* R. at V. 15, P. 469-470). Because of the specificity of the issues that were before the trial court, Dr. Benton should have been deemed unqualified to render opinions regarding cause and manner of death, either generally or with regard to Chloe Britt specifically.

Furthermore, as Dr. Benton is not an engineer or biomechanic, he was not qualified to render any opinions regarding the science of movement, mechanism of injury, the physics behind forces, etc. as they relate to SBS in general and the death of Chloe Britt in particular. Due to Dr. Benton's lack of qualifications in the fields of pathology and biomechanics, his testimony should have been excluded under Rule 702. The trial court abused its discretion when it allowed Dr.

Benton to testify as to the cause and manner of Chloe Britt's death and biomechanics, and its decision must be overturned.

ii. The trial court abused its judicial discretion when it allowed Dr. Benton to testify as an expert because his methodology is unreliable, resulting in unreliable opinions.

In addition to Dr. Benton's lack of qualifications, his opinions in this case are the product of unreliable methodologies. This renders his opinions in this case unreliable.

Dr. Benton testified that he did not review a great deal of basic materials related to this case and the issues raised in these proceedings before forming his opinions in his expert report and deposition of this case. He did not review the video recorded statement of Petitioner at the time he gave his report or deposition. (R. at V. 15, p. 370). He also did not review the video statement of Rebecca Britt, Chloe's mom, at the time of his report or deposition. (R. at V. 15, P. 370). Dr. Benton did not look at any tissue slides in this case. (R. at V. 15, p. 466). Additionally, Dr. Benton did not visit the scene of the incident. (R. at V. 15, p. 465). Further, the file materials that Dr. Benton produced do not contain any of Chloe Britt's medical records. (R. at V. 15, p. 371). Dr. Benton testified:

> Q. Can you show me on the front of the report where you had any of the medical records of Chloe Britt before she passed away?
>
> A. Again, you have the list. You have my report in front of you. The medical records are contained within various trial testimony and expert's affidavits for lack of better term, but the actual records I don't think I had.
>
> Q. They're not listed on this report that included all the stuff you reviewed, correct?
> A. Yes, sir.

(R. at V. 15, p. 371).

As established before, Dr. Benton is not an engineer or biomechanic. *See supra*. It has also been established that Dr. Benton recognizes the scientific validity of biomechanics and the

important role that this discipline can play in evaluating an SBS case such as this one. Dr. Benton testified as following:

> Q. There must be a biomechanical analysis for any instance in which the severity of the injury appears to be inconsistent with the history. Do you agree with that?
>
> A. I don't disagree with it. I think it would be really nice if we could do that in all cases. Yes.

(R. at V. 15, p. 444). However, Dr. Benton did not request a biomechanical analysis to assist in his review of the case. (R. at V. 15, p. 464). Dr. Benton did not request a biomechanical analysis even though he has been involved in cases where he has done that and acknowledges that such an analysis could have been done here. *Id.* Indeed, Dr. Benton admits that his opinions – which touch on complex issues of physics, math, and biomechanics – are not based on any objective, scientific data at all:

> Q. And your opinion is not based on physics or biomechanics, correct?
>
> A. I think its informed by both, but its certainly not a biomechanical assessment.
>
> Q. You're not using mathematical formulas to arrive at any of your opinions, correct?
>
> A. No, sir.

(R. at V. 15, pp. 465-466).

In a case focusing on SBS and the scientific underpinnings of SBS, the methodologies of Dr. Benton (which do not include objectively measurable data) are not sufficiently reliable. Dr. Benton has not reviewed all relevant and important case materials and has not undertaken any analysis involving measurements or mathematical data, despite having the ability to request a biomechanical analysis in this case. The resulting opinions of Dr. Benton lack sufficient reliability due to the flawed methodologies that Dr. Benton employed, in violation of the

standards of the American Academy of Pediatrics. *See* Transcript Exhibit "15," *Abusive Head Trauma* at p. 1410 ("Pediatricians also have a responsibility to consider alternative hypotheses when presented with a patient with findings suggestive of AHT. A medical diagnosis of AHT is made only after consideration of all the clinical data."). Dr. Benton did consider alternative hypotheses or consider all clinical data. Thus, the trial court abused its judicial discretion by allowing Dr. Benton to testify as to his opinions lacking in methodological reliability.

iii. The trial court abused its judicial discretion when it allowed Dr. Benton to testify as an expert because Dr. Benton's opinions are unreliable.

Along with the reliability concerns stemming from Dr. Benton's inadequate qualifications and methodologies with respect to opinions about cause and manner of death, Dr. Benton's opinions are unreliable. Dr. Benton admitted he is an advocate and not merely a disinterested scientist. Specifically, Dr. Benton testified that he considers himself to be a child advocate and a family advocate. (R. at V. 15, p. 363).

Dr. Benton's lack of objectivity is further illustrated by the manner in which Dr. Benton became involved in this case. Dr. Benton testified as follows:

> Q. Your involvement in this case was a little extraordinary, wasn't it? It didn't come with a phone call as it usually does by someone asking you to get involved? You actually wanted to get involved in the Jeffery Havard case, correct?
>
> A. With respect to my presence here I was requested by Mr. Brad Smith, but you are correct prior to that as I was in Mississippi at a new job still establishing practicing lines and patterns[.] [T]he director of the center pointed out to me an article by Jerry Mitchell examining the potential innocence of a case involving Shaken Baby Syndrome. With my knowledge of the potential for forensics in the State of Mississippi I did indeed call them up and offer to review the case and to help an innocent person if that's what it was about.

(R. at V. 15, p. 397). Dr. Benton continued to testify:

> Q. So, this is not one where you were approached to look at something objectively. It was you saying, I want to be involved in this case, and I want to put myself out there to Jerry Mitchell to have conversations about this case, correct?
>
> A. It's correct, but I still want to be objective.

(R. at V. 15, p. 398). However, despite Dr. Benton's hopes of being objective, he testified that he deemed the death of Chloe Britt a homicide based solely on the facts set forth in a newspaper article written by Jerry Mitchell and published in the Clarion-Ledger on January 20, 2014. (R. at V. 15, pp. 401-402); (Transcript Exhibit "31" and Transcript Exhibit A-I). The following exchange illustrates this point:

> Q. You read a newspaper and you already said Jefferey Havard is a killer. Right? You didn't have anything else at that point.
>
> A. Well, I'm trying to engage him. Yes, that's what I wrote. I don't recall why I said what I said, but that's what I wrote.

(R. at V. 15, p. 402). Dr. Benton came to this conclusion without a complete investigation of the case, although he later admits that before someone makes a determination of homicide, they should complete a thorough investigation. (R. at V. 15, p. 436). As set forth above, Dr. Benton admits he did not do this in this case, as he did not review basic case materials such as medical records.

Dr. Benton comes to this case with a significant bias that taints all of his opinions. Rather than employing the scientific method and reaching objective conclusions, Dr. Benton has instead aggressively approached this case through the eyes of an advocate. Further, Dr. Benton's premature labeling of this case as a homicide based solely on a newspaper article provides further evidence that Dr. Benton never investigated this case as a disinterested scientist. As a result, his opinions in this matter lack reliability and should have been excluded by the trial court.

Dr. Benton's opinions that Chloe Britt was abused are also unreliable because they fail to account for non-abusive possibilities that Dr. Benton even acknowledges in his testimony. Dr. Benton opines that that Chloe could have suffered a fall in this incident. (R. at V. 15, p. 461). He further agrees that the use of the triad alone does not mean abuse. *Id.* Additionally, Dr.

Benton acknowledges that short falls can be fatal. (R. at V. 15, p. 391). He testified that a fall could cause blunt trauma to a child's head. (R. at V. 15, p. 463). However, Dr. Benton's analysis does not account for any of these possibilities. This comes as no surprise, given that Dr. Benton did not even watch the video of Harvard's interview where this partial history was given (and not to a medical doctor asking specific questions but to Sheriff's deputies engaged in a custodial interrogation). Acknowledging several strong possibilities that Chloe Britt was not intentionally abused but then discarding them without explanation is not a reliable opinion from an expert: it is conclusory speculation on behalf of an advocate.

Dr. Benton's opinions in this case are consistently unreliable. Indeed, Dr. Benton recognizes that "many good scientists" would find his opinions to be "highly controversial". (R. at V. 15, pp. 462-463). Dr. Benton's opinions lack sufficient scientific rigor and reliability to be admitted, especially in this case where cause and manner of death make the difference between a man's innocence and guilt.[10] Dr. Benton's opinions should have been entirely excluded by the trial court, and the trial court abused its discretion when it allowed Dr. Benton's testimony regarding the cause and manner of Chloe Britt's death.

III. THE CIRCUIT COURT ERRED BY EXCLUDING EVIDENCE THAT CHLOE BRITT WAS NOT SEXUALLY ABUSED

Prior to the evidentiary hearing, the State filed a Motion for An Order That Restricts or Limits Evidence and Testimony. (R. at v. 9, pp. 1228-1243). The chief evidence that the State sought to exclude was testimony that Chloe Britt had not been sexually assaulted. Sexual assault was the underlying felony of the Capital Murder charge of which Havard was convicted. It was a horrific allegation, that served its purpose of horrifying a jury to produce a conviction and death sentence. It is an allegation that has, over the years, proven to be completely false. There

[10] Dr. Benton has previously been found to base his opinions on "nothing more than speculation", leading to exclusion of those opinions. *See Darnell v. Darnell*, 167 So.3d 195, 205) (Miss. 2014).

is not a single expert who has been involved in this case, including State experts Dr. Steven Hayne and Dr. Scott Benton, who believes Chloe Britt was sexually assaulted. The State obviously does not want to talk about sexual assault in this case.

At a hearing prior to the evidentiary hearing, the trial court heard argument on the admissibility of this testimony and granted the State's motion. (R. at Supp. Transcript at pp. 30-36). In essence, the trial court ruled that this Court's remand Order did not give him jurisdiction to hear any evidence regarding sexual battery. (R. at Supp. Transcript at pp. 32-33).

During the evidentiary hearing, Havard made several proffers for the record of the testimony that would have been presented on the issue of sexual battery in the absence of the court's pre-hearing ruling. Those are detailed below.

A. Proffered Testimony of Dr. Steven Hayne

> Q: Under Paragraph 8, and this is the proffer, Doctor Hayne, it was your declaration under perjury that there was no evidence that the death of Chloe Britt was caused by any sexual act. Is that correct?
>
> A: That is correct. I did not have proof of it, Counselor. I had evidence of an injury, but in and of itself according to the literature I cannot go to the point to say that it was sexual battery committed.

(R. at V. 13, p. 23).

B. Proffered Testimony of Dr. Michael Baden

One of the expert witnesses that Havard called was world-renowned forensic pathologist Dr. Michael Baden. On direct examination of Dr. Baden, Havard's counsel attempted to elicit testimony from Dr. Baden about how allegations of child sexual abuse can affect medical and legal investigations of child death. Counsel then intended to elicit testimony from Dr. Baden about his evaluation of the sexual battery issue in this particular case. The Court sustained the State's objections to this line of questioning but permitted counsel to make a proffer of Dr.

Baden's anticipated testimony in response to this line of questioning. Dr. Baden's proffered testimony was summarized as follows:

> Doctor Baden would testify that allegations of sexual violence in regard particularly to a child are particularly inflammatory. They do color the rest of the investigation including by medical experts in his training and experience. He reviewed the conclusions that some have made in this case that Chloe Britt was a victim of sexual abuse. In his opinion the sexual battery aspect of the case is tied to other medical issues in the case such as Shaken Baby Syndrome for the reasons I've already stated. He reviewed the sexual abuse conclusions in this case. His opinion is that Chloe Britt was not sexual [sic] abused in this case; that there's no evidence of that; that the dilatation of the anus that was observed and described by medical advisors and Doctor Hayne was part of the natural dying process; and is not indicative in any way of any sexual abuse; that the small one centimeter contusion or abrasion in the anus described could have numerous innocent causes. He also would have evaluated the trial testimony of witnesses that talked about the sexual issues in this case of further evidence of how it affected the medical judgment in the case, and to include [sic] to a reasonable degree of medical certainty based upon his education, training and experience that there was no evidence that Chloe Britt was sexually abused in this case.

(R. at v. 13, p. 94).

C. Proffered Testimony of Dr. Scott Benton

During cross-examination of the State's expert, Dr. Benton, one subject of review was a series of emails[11] between Benton and Jerry Mitchell, a newspaper reporter, about Havard's case. The following testimony was made by way of proffer since it touched on the issue of sexual assault:

> Q. Doctor Benton, you also have a final sentence in that first e-mail. What did you tell Jerry Mitchell that you agree to as to the findings regarding Jeffery Havard?
>
> A. I said, "I agree the findings do not support a sexual assault."

(R. at v. 15, p. 403).

In addition to the proffered testimony of these three witnesses, some of the exhibits admitted at hearing also include references to the sexual battery issue. Those include:

[11] *See* Exhibit 31 to the Hearing Transcript.

- Exhibit 2, Declaration of Dr. Hayne (stating, in Paragraph 10, that Dr. Hayne "cannot include or exclude to a reasonable degree of medical certainty that [Chloe Britt] was sexually assaulted.").
- Exhibit 3, Deposition of Dr. Hayne (confirming, at page 26, that Dr. Hayne could not conclude to a reasonable degree of medical certainty that Chloe was sexually abused).
- Exhibit 4, Affidavit of Dr. Hayne dated 07/22/2013 (stating, at Paragraph V., that "[a] finding of sexual assault was not conclusively demonstrated."
- Exhibit 5, Affidavit of Dr. Hayne dated July 21, 2014 (affirming under oath a quotation in a newspaper article, attached to the Affidavit, where Dr. Hayne said, "I didn't think there was a sexual assault. I didn't see any evidence of sexual assault.").
- Exhibit 31, Emails of Dr. Benton at p.1 (though the printed copy is cut off some, Dr. Benton affirmed that this email says the facts in the case do "not support a sexual assault").

The trial court restricted Havard's presentation of evidence regarding a lack of sexual assault because it found that its jurisdiction was limited to examining issues of Shaken Baby Syndrome. It is true that this post-conviction proceeding was primarily focused on SBS. But that issue does not exist in a vacuum in this case. SBS has always been connected to the allegation of sexual battery in this case because the State chose to present the case in that manner. The State cannot now complain that new evidence regarding sexual battery is not relevant to these proceedings. And the trial court's ruling excluding that evidence was an abuse of discretion.

To begin, this Court's Order remanding this matter in no way restricted the scope of the proceedings in the way that the trial court ordered. This Court's April 2, 2015 Order remanded the case to this court for proceedings "on the **issues** of newly discovered evidence presented in his application for leave" (emphasis added) filed with the Supreme Court. This Court's Order **did** restrict Petitioner's ability to proceed on claims related to allegations of a *Brady* violation and ineffective assistance of counsel. But no such restriction is found with respect to the issue of sexual battery.

While Havard's application for leave filed with this Court unquestionably was focused on SBS, it also contained multiple mentions of the issue of sexual battery. The application quoted from experts Dr. Steven Hayne, Dr. Janice Ophoven, and Dr. Michael Baden regarding questions about the sexual battery allegation present in this case.

The following are direct quotes from Havard's application for leave to proceed in the Circuit Court that was filed with this Court (and which led to the order remanding the case to the Circuit Court of Adams County):

Page 16: "As before, Dr. Hayne reiterated that he "found no definitive evidence of sexual abuse based upon my findings" in the Havard case."

Pages 18-19: Dr. Baden also takes issue with the sexual battery aspects of Mr. Havard's case. He states that anal dilation, which was observed in the emergency room when Chloe was brought in for treatment, can be accounted for by her other injuries and is not indicative of sexual battery. Dr. Baden opines: "the sphincter muscles around the anus—and around the urinary bladder—normally relax when a baby loses consciousness and becomes comatose, and when death occurs. Relaxation of the sphincter muscles causes dilation of the anus which is common and entirely normal…."

Page 19: Dr. Baden also opines "that there is absolutely no evidence—no circumstantial, medical, forensic, or autopsy evidence—that Chloe was sexually abused."

Page 20: At the outset of her case-specific analysis, Dr. Ophoven states that "the anal findings are particularly important since the misdiagnosis of anal abuse at the hospital distorted the entire investigation and trial."

Page 20: [Dr. Ophoven's] conclusions are: (1) there is no evidence of sexual abuse in this case; rather, the anal findings "were misinterpreted by hospital personnel who did not have experience or expertise in post-mortem changes in infants….

Pages 21-22: Dr. Ophoven then details the problems with the anal findings, which she finds to be misinterpreted, non-existent in most respects, and highly prejudicial to the entire trial.

Page 22: "[T]he objective medical findings…establish that there was no tear yet the hospital staff was permitted to testify that it existed, a physiological impossibility. The lack of objectivity casts doubt on the reliability of other clinical observations made by the hospital staff."

Page 22: Dr. Ophoven concludes that there is no evidence in this case that is diagnostic of sexual battery, and that the misdiagnosis and incorrect testimony by the treating providers infected the trial with a prejudice that was impossible to overcome.

Clearly, Petitioner's application for leave to proceed in this court is replete with references to issues concerning sexual battery and their connection to the SBS and other findings presented to the jury in the 2002 trial. Thus, under the plain terms of the remand Order, issues of sexual battery were relevant to the proceedings in the Circuit Court and should not have been restricted at the evidentiary hearing.

Further, at Petitioner's trial in 2002, the State's theory of the case focused on the interconnection of the SBS and sexual battery allegations. Thus, in an examination of newly

discovered evidence and its comparison to the evidence presented at the 2002 trial, those interconnections are relevant. Under Rule 401, relevant evidence is that which "has any tendency to make a fact more or less probable than it would be without the evidence" and "is of consequence in determining the case". Relevancy is a low bar, as "Rule 401 favors admission if the evidence has any probative value at all." *Adcock v. Mississippi Transp. Com'n,* 981 So. 2d 942, 947 (Miss. 2008). "The threshold for admissibility of relevant evidence is not great." *Whitten v. Cox*, 799 So. 2d 1, 15 (Miss. 2000).

As demonstrated in detail in the Facts section above, the State intertwined the issues of SBS and sexual battery in the 2002 trial. The State fought to introduce SBS evidence even though the underlying felony of child abuse was dropped. It then tried the case to the jury with a theory that Havard intentionally shook Chloe to death in an effort to cover up the supposed sexual batter. The State should not have benefited from a new position that SBS and sexual abuse are so unconnected that the mere mention of any issues related to sexual battery in this proceeding should be restricted. *See, e.g., Clark v. Neese*, 131 So.3d 556, 560 (Miss. 2013) ("Judicial estoppel precludes a party from asserting a position, benefitting from that position, and then, when it becomes more convenient or profitable, retreating from that position later in the litigation.").

Finally, evidence regarding the allegations of sexual battery was also relevant because that inflammatory accusation likely colored the medical and legal investigation of the case, including the SBS issues. Dr. Michael Baden, who has over 50 years of forensic pathology experience, testified that the presence of allegations of violence early in the investigation can affect the analysis by medical providers and investigators. He testified (with no objection):

> I worked with police for fifty years. They're trying to do the best that they can, but if they feel they have a suspect in a case, whatever reasons they have they now want it supported by science, and there is pressure for the pathologists to make findings. The most common finding being, Doc, he has only two hour span where

> he could have done it, and they convey to you that they would like the time of death to fit into that span. So, there's lots of ways in which pressure is put, because the police feel like they have the right guy, and we have to be able to say whatever it is regardless of who it helps or hurts.

(R. at v. 13, p. 91). If permitted to testify further, Dr. Baden would have described how an allegation of sexual abuse against a child can especially color what is supposed to be an impartial and evidence-based investigation. The trial court refused to allow that testimony.

However, Dr. Baden's testimony would have gone beyond an analysis of the sexual battery of Chloe Britt. It also would have included an analysis of how issues such as these color the rest of inquiry. And when, as here, the allegation that colored the resulting investigation was demonstrably wrong (as agreed to by all expert witnesses who have ever testified in this case), it is particularly troublesome. The relevance of this line of testimony to Dr. Baden's analysis of forensic issues in the case is obvious. The trial court abused its discretion by excluding all testimony that touched in any way on issues of sexual battery.

It is understandable why the State wanted to restrict Havard's presentation of evidence that questions the allegation of sexual battery in this case. Sexual battery was one of the twin pillars upon which the State built its case against the Petitioner. And that pillar is crumbling just as readily as the other pillar, Shaken Baby Syndrome. Indeed, they are falling together because they are interrelated in this case. They are interrelated because the State made them so. In 2002, the State connected the allegations of sexual battery directly to the allegations of SBS. In so doing, the State opened the door to discussing one while discussing the other. The State cannot now close that door when inconvenient to its position. The trial court abused its discretion when it closed that door by excluding all evidence of sexual battery.

This Court should review all proffered evidence on the issue of sexual battery. In doing so, this Court should reverse this capital murder conviction that was based, in large part, on that allegation that tainted the entire case. A jury deserves to hear how every expert witness who has

ever testified in this case—including the two called by the State of Mississippi—does not believe a sexual battery occurred.

CONCLUSION

Because the newly discovered evidence presented at the 2017 evidentiary hearing would dramatically alter the jury question from that presented to the 2002 jury, Havard is entitled to a new trial. The Circuit Court's decision affirming the capital murder conviction should be reversed. This Court should render a decision in favor of Havard's request for post-conviction relief, vacate his conviction, and order a new trial.

Further, this Court should reverse the Circuit Court's decision to admit the expert opinions of Dr. Scott Benton. Dr. Benton was not qualified to provide the opinions he gave in this case and both his methodologies and opinions are fatally unreliable.

Finally, the Court should reverse the Circuit Court's decision to exclude all evidence that Chloe Britt was not sexually abused. This Court should consider the excluded evidence in deciding the merits of this matter.

RESPECTFULLY SUBMITTED, this the 18th day of September, 2019.

JEFFREY HAVARD,
APPELLANT

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CERTIFICATE OF SERVICE

I, Graham P. Carner, certify that I have served a copy of the above and foregoing document to ALL COUNSEL OF RECORD via filing with the MEC electronic filing system.

I, Graham P. Carner, do hereby certify that I have this date mailed a true and correct copy of the above and foregoing document, via United States Mail, postage pre-paid to:

Hon. Debra Blackwell
Circuit Court Judge
115 S. Wall St.
Natchez, MS 39120

DATED this, the 18th day of September 2019.

/s/ Graham P. Carner
GRAHAM P. CARNER