

IN THE COURT OF APPEALS OF THE STATE OF MISSISSIPPI

NO. 2017-KA-00411-COA

**JOSHUA ERIC HAWK CLARK A/K/A
JOSHUA CLARK**

APPELLANT

v.

STATE OF MISSISSIPPI

APPELLEE

DATE OF JUDGMENT:	03/03/2017
TRIAL JUDGE:	HON. THOMAS J. GARDNER III
COURT FROM WHICH APPEALED:	ITAWAMBA COUNTY CIRCUIT COURT
ATTORNEYS FOR APPELLANT:	JIM WAIDE DAN W. WEBB DANIEL M. WAIDE
ATTORNEY FOR APPELLEE:	OFFICE OF THE ATTORNEY GENERAL BY: SCOTT STUART
DISTRICT ATTORNEY:	JOHN D. WEDDLE
NATURE OF THE CASE:	CRIMINAL - FELONY
DISPOSITION:	REVERSED AND REMANDED - 10/29/2019
MOTION FOR REHEARING FILED:	
MANDATE ISSUED:	

EN BANC.

TINDELL, J., FOR THE COURT:

¶1. An Itawamba County jury convicted Joshua Clark (Josh) of the second-degree murder of his four-month-old daughter, Kyllie Clark. At trial, the State's case against Josh relied upon the diagnosis that Kyllie died from shaken-baby syndrome (SBS) and the expert-opinion testimony provided by pediatrician Dr. Karen Lakin as to the timing of Kyllie's fatal injuries. In this opinion, we address whether Dr. Lakin's expert testimony on SBS met the reliability prong of Mississippi's modified *Daubert* standard as required by Mississippi Rule of Evidence 702; *Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137 (1999); *Daubert v.*

Merrell Dow Pharmaceuticals Inc., 509 U.S. 579 (1993); and *Mississippi Transportation Commission v. McLemore*, 863 So. 2d 31 (Miss. 2003).

¶2. Josh's appeal arises from a prosecutorial model for a category of cases involving similar facts: Kyllie died in 2008 when SBS charges were common; Josh claimed his innocence; no witness purported to have seen Josh shake or ever abuse Kyllie in any way; no apparent indications of recent trauma existed; yet, solely on the basis of Dr. Lakin's expert testimony, the jury found Josh, who had no prior criminal record and was a father of three young children, guilty of second-degree murder. Kyllie was under Josh's exclusive care for approximately three hours before she began gasping for air and went limp. Josh, along with Kyllie's mother, Bethany Clark, rushed Kyllie to the hospital. Despite multiple resuscitation attempts and medical intervention, Kyllie died.

¶3. In reversing Josh's conviction and sentence and remanding for a new trial, we find that Dr. Lakin's expert-opinion testimony failed to meet the *Daubert* standard and was so unreliable as to render portions of her testimony inadmissible under the rules of evidence. Dr. Lakin may have been competent in her expertise as a pediatrician and child-abuse-treatment provider. Her competence, however, was not the focus of the *Daubert* hearing. Rather than focusing mainly on Dr. Lakin's expert qualifications, the circuit court was required to also examine the substance and methodology of her proffered testimony regarding SBS as a reliable theory and, in particular, the reliability of her opinion on the timing of Kyllie's fatal injuries. As further discussed below, we therefore find reversible error in the circuit court's admission of Dr. Lakin's testimony. Because we reverse Josh's conviction

and sentence and remand his case on this issue, we decline to address his remaining assignments of error on appeal.¹

FACTS

¶4. Josh and Bethany, along with their three children, Cadence, and twins Kyllie and Quinton, moved to a rented home in Itawamba County, Mississippi, in late 2007. On January 5, 2008, Cadence was two years old, and Kyllie and Quinton were four months old. Two teenaged friends of Bethany's, Haley Parker and Morgan Wright, also lived in the Clarks' home. Bethany's oldest child, five-year-old Savannah, also sometimes stayed with the Clarks.

¶5. Josh typically came home from his out-of-state construction job on Friday afternoons and spent the weekends with his family. From Friday nights until early on Monday mornings, Josh took care of the children. Josh let Bethany sleep through the night on his weekends home while he got up every two or three hours to feed the twins. At trial, no one testified to seeing Josh harm any of the four children, and Bethany considered Josh to be a good father.

¶6. On Saturday, January 5, 2008, Josh arose at 9 a.m. and let Bethany and the teenagers, Haley and Morgan, sleep until they awoke around 2 p.m. Josh fixed breakfast and lunch for the two older children, Savannah and Cadence. Josh testified that he fed and burped Quinton

¹ Our reversal is not meant to serve as a determination that all scientific testimony regarding SBS is insufficiently reliable to serve as a basis for civil or criminal liability. Our reversal is instead intended to encourage the proponents of SBS testimony to solidly provide courts with true "expert" testimony grounded on sound methodology, principles, or techniques.

and tried to feed Kyllie. Josh noticed that Kyllie was fussy that day, and he assumed that she felt badly. Around 3 p.m., Bethany and the teenagers left to run errands. Bethany testified that when she and the teenagers left, Kyllie was fine. The four children were then left in Josh's exclusive care until Bethany and the teenagers returned home at 5:30 p.m.

¶7. Josh testified that maybe five or ten minutes before Bethany and the teenagers returned, Kyllie made a gasping sound. Upon returning and seeing Kyllie's condition, Morgan called 911. Josh testified that he needed to get dressed, and he took Kyllie into the bedroom with him. At this point, Kyllie went limp. Bethany brought Kyllie back out to the living room and attempted CPR. Josh and Bethany decided to take Kyllie to the hospital.² As Bethany ran into the hospital with Kyllie, Bethany "popped" Kyllie against the door. Medical records reflect that the examining doctor at the local hospital noted Kyllie may have suffered from sudden-infant-death syndrome.

¶8. Local hospital staff sent Kyllie to Memphis, Tennessee, for specialized care at Le Bonheur Children's Hospital. Prior to and after her arrival at Le Bonheur, multiple vigorous CPR attempts were made. The Le Bonheur staff who examined Kyllie diagnosed her with rib fractures, retinal and subdural hemorrhages, and brain swelling. Dr. Lakin consulted on Kyllie's case at Le Bonheur. Kyllie's brain showed the presence of subacute or acute-on-chronic hematoma. This finding was described at trial as an older stage of blood in Kyllie's brain as well as a new bleed, indicating there had been past bleeding in Kyllie's brain.

² One significant factual difference existed between the statements given by Josh and the teenagers. Josh testified that he wanted to take Kyllie to the hospital when he and the teenagers realized Kyllie had gone limp, but the teenagers each said that Josh, at least immediately, did not want to go to the hospital.

Tragically, at Le Bonheur the staff declared Kyllie brain dead and took her off life support.

¶9. The police investigated Kyllie’s death based, at least in part, on the initial information from Le Bonheur and Dr. Lakin. Although the medical records reflected no indication of recent accidental trauma to Kyllie in the days or weeks before her death, Haley admitted seeing Cadence fall on Kyllie. Additionally, Jacqueline Fifield, who sometimes babysat the twins, testified that she once found Kyllie on the floor and that Cadence told her that Bethany had dropped Kyllie. A social worker noted in Kyllie’s Le Bonheur medical records that Kyllie’s injuries were suggestive or consistent with SBS or child abuse. Dr. Lakin opined that, with no history of any type of significant trauma, the hospital’s findings of brain trauma, retinal hemorrhages, and rib fractures combined to support her opinion that Kyllie died due to SBS. Officer Hillhouse, one of the investigating officers, testified that the Le Bonheur medical records referred to Kyllie’s injuries as consistent with SBS or “an adult . . . [grabbing] the torso of the child and [shaking] the child.” Officer Hillhouse interpreted the note to mean that either Josh or Bethany had injured Kyllie. While the police could not pinpoint the exact time Kyllie’s injuries had been inflicted, they ruled out Bethany as the perpetrator because Kyllie’s breathing trouble started when Kyllie was in Josh’s exclusive care.

¶10. On March 26, 2008, an Itawamba County grand jury indicted Josh on Count I, the commission of felonious child abuse and capital murder “by violently shaking [Kyllie], causing rib fractures and internal injuries . . . ,” and Count II, the felonious child abuse of Kyllie’s twin, Quinton.

¶11. Pursuant to a plea bargain, Josh agreed to plead guilty in 2010 to the reduced charge of Kyllie’s depraved-heart murder. Josh’s counsel then allowed Josh to enter into the plea agreement without retaining an expert to examine and rebut the State’s SBS theory on the cause and timing of Kyllie’s fatal injuries.³ The circuit court sentenced Josh to life imprisonment. Later, the circuit court granted Josh’s motion for post-conviction relief (PCR) after finding that Josh’s trial counsel had rendered ineffective assistance by failing to introduce expert testimony to rebut the State’s SBS expert testimony. The order granting Josh relief noted that “there is considerable conflict within the medical community concerning [SBS].” The circuit court’s ruling on the PCR motion both assured Josh of his right to expert assistance and actually required Josh to retain an expert to rebut the State’s SBS theory.

¶12. With both new counsel and an expert to dispute the State’s SBS testimony, Josh faced a new trial on the charge of Kyllie’s capital murder. Before trial, Josh moved to preclude the State’s introduction of Dr. Lakin’s testimony about SBS/abusive head trauma (SBS and/or AHT).⁴ Josh argued that SBS is no longer a generally accepted diagnosis in the absence of

³ At the plea hearing, the State presented its offer of proof, which consisted solely of Dr. Lakin’s opinion as to the cause of death, and the defense accepted the State’s offer of proof.

⁴ In the past, certain medical providers used the term “SBS” generally to refer to an infant with certain unexplained intercranial/subdural hemorrhages (bleeding on the brain), retinal hemorrhages (bleeding in the eye), and no history of traumatic accidental injury. Now, medical providers use the term “AHT” to refer to that same diagnosis, generally expanding the cause of an infant’s condition to include not only a violent shaking but also some type of impact. According to Dr. Lakin, “SBS” and “AHT” are sometimes used interchangeably.

evidence of external injuries and that SBS could not be used to accurately determine the time of Kyllie's injuries. Josh supported his motion with numerous articles, studies, and criticisms of SBS. The circuit court held what it referred to as a *Daubert* hearing, after which the circuit judge stated, "[T]his thing is identified in my mind, at least, as [an SBS] case." The circuit court summarily denied Josh's motion.⁵

¶13. In opening statements, the State articulated its theory of the case that Josh must have been responsible for Kyllie's death because she was in his sole care for almost three hours before she began to experience breathing trouble and other symptoms. The State treated the case as a shaken-baby case and theorized that Josh abused Kyllie during that time period, which resulted in her fatal injuries. The State primarily relied upon Dr. Lakin's trial testimony. Dr. Lakin opined at trial that someone killed Kyllie by shaking her, with the possibility that Kyllie's head impacted something. Dr. Lakin further testified that the injuries that killed Kyllie could only have occurred during the three-hour window Kyllie was in Josh's exclusive care. Dr. Lakin testified that, after sustaining her injuries, Kyllie would not have functioned normally, would have lost consciousness very quickly, and would not have been able to eat or to be fed.

¶14. In support of her trial opinions and conclusions, Dr. Lakin cited only the American Academy of Pediatrics (AAP) and stated that the AAP recognizes AHT as an entity with SBS as a component. According to Dr. Lakin, under the AAP statement, AHT is supported by findings of intracranial hemorrhages, which may or may not be associated with fractures and

⁵ In our summary of the facts, we present only Dr. Lakin's trial testimony. We reserve a discussion of her *Daubert*-hearing testimony for the analysis portion of our opinion.

retinal hemorrhages. Dr. Lakin claimed that Canada's version of the AAP also recognizes SBS/AHT and that the Center for Disease Control funds research for SBS/AHT. She testified that challenges to the theories of SBS/AHT come less from the pediatric sciences and more from other sciences and the legal arena. While Dr. Lakin stated that numerous peer-reviewed articles support that the disciplines of pediatrics, ophthalmology, neurosurgery, and neurology recognize AHT, she could not name or cite to any of those articles.

¶15. On cross-examination at trial, Dr. Lakin agreed that, according to the AAP, “[t]he mechanisms and result of injuries of accidental and abusive head injury overlap[,] and there is no single or simple test to determine the accuracy of the diagnosis.” This AAP statement was the updated version upon which her opinions were based, yet she was unaware of the exact statement. Further, Dr. Lakin admitted she was unaware that in 2009, the AAP removed language that presumed child abuse when subdural hematoma, retinal hemorrhages, and brain swelling exist.

¶16. Dr. Lakin further admitted at trial that, upon evaluation at Le Bonheur, Kyllie's rib fractures appeared to be healing rather than recently sustained, the fractures would have taken several days to develop, and it was unlikely they occurred on January 5, 2008, during the time Kyllie was with Josh. Dr. Lakin confirmed that she did not mean to suggest that Josh had anything to do with the rib fractures, and she stated, “There is not a time/date stamp on the [rib] fracture that tells you that it happened one week before or two weeks before. But we know that the healing starts to appear around 5-7 days in an infant.”

¶17. Although Dr. Lakin opined that many different accidental and nonaccidental causes potentially existed for each of Kyllie’s individual injuries (subdural hemorrhages, retinal hemorrhages, and rib fractures), she stated the combination of the injuries was inconsistent with a natural cause of death. She agreed that to eliminate the other possible causes of Kyllie’s death, the medical providers would have to go through a process called differential diagnosis. Dr. Lakin also agreed that no differential-diagnosis process was completed on Kyllie, no test was done to look for neck injuries, and Kyllie had no external head injury.

¶18. After Dr. Lakin’s full trial testimony, the circuit court held a bench hearing on new information received and on Josh’s request to recross Dr. Lakin, particularly with regard to her understanding of histology slides and their use in determining the time of Kyllie’s brain injury. In reference to Dr. Lakin’s testimony, the circuit judge stated, “I don’t know that she’s ever testified to anything other than that she could not quantify the time” However, Dr. Lakin had specifically testified that the injuries occurred after Kyllie last appeared “fine” before 5 p.m., or after Josh last fed Kyllie. Dr. Lakin testified that Kyllie’s being healthy, eating, and playing between 3 p.m. and 5 p.m. was inconsistent with Kyllie’s collapsing, stopping breathing, and dying within 24 to 36 hours. Then, in contradiction to her earlier testimony, Dr. Lakin admitted on cross-examination that she had not and could not determine the exact time of Kyllie’s injuries. Dr. Lakin agreed that she would defer to a pathologist on the subject of pathology.

¶19. Another State’s witness, Dr. Mark LeVaughn, a forensic pathologist and the chief medical examiner for the State of Mississippi, testified that the time Kyllie’s subdural

hemorrhage occurred could not be determined. Dr. LeVaughn explained that a cellular view of a hematoma could give a more precise time of when the injury occurred but not an exact time. He reviewed the histology slides of Kyllie's subdural hematoma and found that they were of no diagnostic value in determining the time of the hemorrhage. The State rested with its case dependent upon Dr. Lakin's trial testimony.

¶20. Dr. Mark Shuman, also a forensic pathologist, testified on Josh's behalf that the cause of Kyllie's death was probably blunt head injury or impact head injury. While he could not testify as to how or when Kyllie's injuries occurred, Dr. Shuman testified that shaking did not cause the injuries. Dr. Shuman discussed the evolution of SBS and AHT as medical theories and explained that studies had been done with test dummies to determine the shaking forces needed to cause fatal brain injuries in infants without also injuring an infant's neck. Dr. Shuman discussed biomechanical engineer studies regarding the forces generated by shaking an infant. He testified that the force of dropping a baby a few feet or stepping on an infant could cause the injuries seen in Kyllie.

¶21. As Dr. Shuman explained, even with minor head injuries, it is standard hospital practice to provide a discharge instruction to monitor a child for 24 hours and to perhaps even wake the child every hour to make sure he or she is okay. Dr. Shuman stated this is because, unlike Dr. Lakin's immediate-symptom-onset theory, the symptoms and severe consequences of head injury can be delayed. Someone can appear completely normal at first but later lose consciousness.

¶22. Dr. Shuman and Dr. LeVaughn both testified that, had a proper sample histology slide

of Kyllie's dura been prepared, they could have given an opinion as to the approximate date and time of Kyllie's brain injury. A histology slide of the dura matter would have allowed the pathologists to determine how long the blood under Kyllie's dura had been there—whether a few days, a week, or a month. But the histology slides were poorly prepared under the supervision of a State-contracted doctor, and of the thirteen tissue slides provided to Josh's defense expert, none of the slides were of the dura. The pathologists therefore testified that the best way to determine the time of Kyllie's injuries had been rendered impossible.

¶23. In contradiction to Dr. Lakin, Dr. Shuman testified that retinal hemorrhages do not demonstrate that some type of child abuse has occurred. Although a number of studies have been performed to show that retinal hemorrhages occur from shaking, it has never been proven. He instead testified that since 1957, experimentation has shown that pressure inside the head can cause retinal hemorrhages. Resuscitation efforts, he testified, increase intracranial pressure, causing retinal hemorrhages. As the trial testimony reflected, multiple resuscitation efforts were attempted on Kyllie.

¶24. Also unlike Dr. Lakin, Dr. Shuman opined that short falls can cause significant head injury. He supported his testimony with an expert report listing numerous and various academic and peer-reviewed studies. Dr. Shuman further named the doctors who wrote the articles supporting his testimony and those who performed the studies upon which his opinions were based. Although he agreed that the majority of pediatricians believe in SBS, he stated that pediatricians treat children and childhood diseases while, in comparison,

forensic pathologists focus on autopsy, pathology, trauma, and the legal issues associated with these areas. He explained that forensic pathologists, like himself, use autopsies, examinations, and pathology to determine the cause and manner of death. Dr. Shuman personally disagreed with the existence of the SBS theory and testified that no scientific evidence shows a human can shake a child hard enough to cause a primary brain injury.

¶25. Dr. Shuman testified that when children suffer a fatal head injury, they sometimes are asymptomatic. He explained that, especially with a baby of Kyllie's age, the symptoms can be very subtle and may include vomiting, sleepiness, and irritability. These are all things that can either be a symptom of a head injury or just a normal fussy baby. Thus, Josh's observation that Kyllie had been acting fussy all day on January 5, 2008, could have been an earlier manifestation of Kyllie's injuries. This fact, along with Dr. Lakin's admission that she could not provide the date and time of Kyllie's injuries, reflected a missing piece of the State's case—the causal connection between Kyllie's injuries and the few hours she was solely in Josh's care.

¶26. Dr. Shuman testified that blunt head injury can be accidental or intentional and that examination of the body and medical history cannot, in a case like Kyllie's, disclose whether the injury was inflicted intentionally as opposed to accidentally. In sum, Dr. Shuman testified that although SBS was once a generally accepted scientific theory, now, based on current and expanding scientific research and literature, the theory has been questioned. He stated the theory alone cannot be used to link an infant's diagnosable injuries and the assumptions made under the SBS theory to the conclusion that a certain fatal injury occurred

at a certain time.

¶27. Josh also testified on his own behalf and denied ever abusing Kyllie. Further, no witnesses testified that Josh shook Kyllie, and the State presented no physical evidence of any witnessed trauma to Kyllie. After both the State and the defense rested, the jury convicted Josh of Kyllie’s second-degree murder. The circuit court sentenced Josh to serve forty years in the custody of the Mississippi Department of Corrections. Josh unsuccessfully moved for a directed verdict and a new trial. Aggrieved, Josh appeals.

STANDARD OF REVIEW

¶28. We review the admission or exclusion of evidence, including expert testimony, for abuse of discretion. *Inv’r Res. Servs. Inc. v. Cato*, 15 So. 3d 412, 416 (¶2) (Miss. 2009). Thus, a trial judge’s ruling will stand “[u]nless we conclude that the discretion was arbitrary and clearly erroneous, amounting to an abuse of discretion” *Puckett v. State*, 737 So. 2d 322, 342 (¶57) (Miss. 1999).

DISCUSSION

¶29. Our analysis regarding the admissibility of Dr. Lakin’s expert testimony focuses on the principles and methodology she applied to form her opinions. *See McLemore*, 863 So. 2d at 36-37 (¶13) (“The focus of this analysis [on the admissibility of expert witness testimony] must be solely on principles and methodology, not on the conclusions they generate.” (internal quotation mark omitted)). The question before this Court is whether the circuit court abused its discretion by ruling that Dr. Lakin’s qualifications as a pediatrician and child-abuse treatment provider adequately supported her opinion that a causal connection

existed between Kyllie’s medically identifiable injuries and her conclusion as to the specific timing of Kyllie’s purported SBS injuries.

¶30. Rule 702, which governs the admissibility of expert testimony, states:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) their 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.

¶31. Thus, when determining the admissibility of expert testimony, courts must first determine whether the expert is qualified to give his or her opinion and then whether the expert’s opinion is based on scientific knowledge (reliability) and will assist the trier of fact in understanding or determining a fact in issue (relevance). *McLemore*, 863 So. 2d at 38 (¶16). As Rule 702 states, the testimony must be “based on sufficient facts or data” and “the product of reliable principles and methods.” M.R.E. 702.

¶32. Experts are supposed to educate and assist the trier of fact on those fields outside the realm of common-sense understanding. *Peters v. Fire Star Marine Serv.*, 898 F.2d 448, 450 (5th Cir. 1990); *McMichael v. Howell*, 919 So. 2d 18, 24 (¶15) (Miss. 2005). Expert evidence can be both powerful and quite misleading because of the difficulty jurors may have evaluating it. *Daubert*, 509 U.S. at 595. Under such circumstances, when an expert is allowed to testify about specific scientific knowledge or scientific methodology, the risk of prejudice is very high because such testimony may tend to mislead or tempt the jury to decide the case on an improper basis. M.R.E. 403 advisory committee note; *accord* Fed. R. Evid.

403 advisory committee notes. Thus, the circuit court is vested with the “gatekeeping responsibility” for expert-testimony admissibility. *McLemore*, 863 So. 2d at 36 (¶11) (quoting *Daubert*, 509 U.S. at 589).

¶33. Previously, in *Middleton v. State*, 980 So. 2d 351, 353 (¶4) (Miss. Ct. App. 2008), Dr. Lakin was accepted as an expert in pediatrics with a subspecialty in child abuse, and she testified that a child’s injuries most likely resulted from SBS.⁶ Regardless of any similarities between her testimony in that case and this case, however, we note that Dr. Lakin’s prior acceptance as an expert does not automatically award her continued certification as an expert in her field or subspecialty in any future litigation. *See Gause v. State*, 65 So. 3d 295, 306-07 (¶¶35-36) (Miss. 2011) (Kitchens, J., specially concurring), *limited on other grounds by Hall v. State*, 127 So. 3d 202, 207 (¶15) (Miss. 2013). Further, in light of Josh’s presented evidence that showed the reliability of SBS as a diagnosis is being increasingly challenged and questioned, Dr. Lakin was required to establish anew in this case that, under the exact circumstances presented, SBS reliably explained Kyllie’s death. Thus, any reliance on similarities with Dr. Lakin’s prior testimony in *Middleton* is misplaced. *See King v. Singing River Health Sys.*, 158 So. 3d 318, 326 (¶33) (Miss. Ct. App. 2014) (recognizing that the automatic introduction of expert opinions based on personal experience but contradicted by scientific evidence would effectively nullify Rule 702 and *Daubert*).

¶34. Like the dissent, we acknowledge the present record reflects Dr. Lakin’s competency in her expertise as a pediatrician and child-abuse treatment provider. No dispute exists as to

⁶ Although *Middleton* refers to Dr. Lakin as “Dr. Larkin,” we recognize this to be a scrivener’s error.

her qualifications to render an expert opinion in those areas. Dr. Lakin’s nearly twenty years of experience focused solely in pediatrics and child-abuse treatment supported her qualification as an expert in those particular fields. The record also clearly shows that Dr. Lakin’s testimony was relevant. The State had no factual-witness testimony regarding when and how Kyllie was injured. The State therefore relied upon Dr. Lakin’s expert testimony to explain not only what happened to Kyllie but also when her injuries occurred.

¶35. Unlike the dissent, our focus is not on whether Dr. Lakin was qualified to testify as an expert but whether her expert opinions, especially as to the causation and timing of Kyllie’s injuries, met *Daubert*’s standards for admission. Thus, our analysis concentrates on the *reliability* of Dr. Lakin’s expert testimony. *Daubert* provides a list of illustrative, but not exhaustive, factors that may be considered to assess the reliability of proffered expert testimony and the principles and methodology underlying an expert’s opinion. *McLemore*, 863 So. 2d at 36-37 (¶13) (citing *Daubert*, 509 U.S. at 592-94). These factors include:

- [(1)] whether the theory or technique can be and has been tested;
- [(2)] whether it has been subjected to peer review and publication;
- [(3)] whether, in respect to a particular technique, there is a high known or potential rate of error;
- [(4)] whether there are standards controlling the technique’s operation; and
- [(5)] whether the theory or technique enjoys general acceptance within a relevant scientific community.

Id. at 37 (¶13). The applicability of these factors in a particular case “depends on the nature of the issue, the expert’s particular expertise, and the subject of the testimony.” *Id.* The trial

court should consider the *Daubert* factors “where they are reasonable measures of the reliability of expert testimony.” *Id.*

¶36. The *Daubert* standard we apply in Mississippi is a narrower and stricter standard than simply demonstrating the general validity of SBS. The *Daubert* standard requires experts to prove that their offered opinion evidence is fundamentally scientifically reliable and not just generally accepted by peers in their specific discipline. *Adcock v. Miss. Transp. Comm’n*, 981 So. 2d 942, 947 (¶16) (Miss. 2008). Thus, here the State needed to show at the *Daubert* hearing that Dr. Lakin’s precise theory was sufficiently reliable to perform “the task at hand”—to inform the jury on how and when Kyllie’s fatal injuries occurred. *See Daubert*, 509 U.S. at 597. Dr. Lakin needed to establish that a qualified pediatrician can reliably diagnose a child with Kyllie’s injuries (subdural hemorrhages and retinal hemorrhages) as a child suffering from injuries caused by SBS. Further, the State needed Dr. Lakin to reliably establish the timing of Kyllie’s SBS-caused injuries to the specific time period when Kyllie was in Josh’s exclusive care.

¶37. Circumstances exist where “[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” *Denham v. Holmes ex rel. Holmes*, 60 So. 3d 773, 788 (¶53) (Miss. 2011) (citing *Watts v. Radiator Specialty Co.*, 990 So. 2d 143, 149 (¶17) (Miss. 2008)). As this Court has previously explained:

[W]hen the reliability of an expert’s opinion is attacked with credible evidence that the opinion is not accepted within the scientific community, the proponent of the opinion under attack should provide at least a minimal defense supporting the reliability of the opinion. The proponent of the expert cannot sit on the side lines and assume the trial court will ignore the unrebutted evidence and find the expert’s opinion reliable. Were we automatically to

allow introduction of expert opinions which are based upon nothing more than personal experience in cases where those opinions are contradicted in the scientific literature, we would effectively render Rule 702 and *Daubert* a nullity.

King, 158 So. 3d at 326 (¶33).

¶38. At the *Daubert* hearing, Dr. Lakin initially testified that three diagnosed injuries formed the basis for her opinion that Kyllie died due to SBS: (1) bleeding beneath the outer layer of the dura surrounding the brain; (2) retinal bleeding; and (3) the presence of rib fractures. Notwithstanding the absence of any other signs of abuse, this triad of injuries, as described by Dr. Lakin, not only purported to explain to the jury the mechanism of Kyllie’s alleged abuse but also purported to allow identification of the timing of the abuse and the perpetrator—the last caregiver to be in Kyllie’s presence during her final lucid moments.

¶39. At the *Daubert* hearing, Dr. Lakin explained how SBS (which is today identified as AHT) was a condition seen primarily in infants who had unexplained significant hemorrhages in the space between their skull and their brain with no physiological explanation as to their cause. Dr. Lakin admitted that a shaken-baby diagnosis assumes a conclusion about a caregiver based on the lack of explanation for an infant’s injuries. Notably, Dr. Lakin defined SBS/AHT as the terminology used when medical providers “are not present when [an infant’s injury] occurs to say that [is] the actual mechanism as to what occurred.”

¶40. Dr. Lakin testified her answers were based on her training and experience as a practicing pediatrician and the information she collected from the evidence, data, medical history, and Kyllie’s evaluation. In support of her opinions and conclusions given during the

Daubert hearing, Dr. Lakin cited only the AAP and stated that the AAP recognizes AHT as an entity with SBS as a component. According to Dr. Lakin, under the AAP statement, AHT is supported by findings of intracranial hemorrhages, which may or may not be associated with fractures and retinal hemorrhages.

¶41. Dr. Lakin agreed that many articles in many different disciplines, from neuropathology to biomechanical engineering, discount SBS as a reliable diagnosis. Dr. Lakin further admitted that she did not know how much force would cause Kyllie's injuries and that she had not published anything regarding SBS/AHT. She was unaware of any studies regarding the error rate of SBS as a diagnosis, and she admitted she had not personally done any research to eliminate short falls as a cause of these types of injuries. Further, Dr. Lakin admitted that no test was done to look for neck injuries to Kyllie and that Kyllie had no external head injury evidencing an impact.

¶42. Dr. Lakin further admitted that, unlike a pathologist, she had no training or expertise in determining cause of death. She could name no scientific literature to support the idea that one could pinpoint to within two hours when these types of injuries occur. In fact, she testified that one of her professors authored a scientific article concluding that, in these types of cases, one could not give any indication of time of injury except for the 24-hour period prior to the symptoms' appearance. To support her SBS/AHT theory, Dr. Lakin had only her brief recall of an AAP statement and her own opinion that "there is" literature that states the more severe the injury the more likely it is for the symptoms to appear immediately. Despite promises from the State and its witnesses to produce articles or other materials to support the

opinions given in the *Daubert* hearing, the State never produced any article to attach to the hearing record as an exhibit. Unlike the State, the defense provided numerous articles, studies, and criticisms of SBS to support its argument that SBS is no longer as widely accepted in the medical community as it once was.

¶43. The circuit judge stated at the *Daubert* hearing that he was not “insensitive to the fact that there may be some difficulty or some difference of opinion about that which is called SBS.” Although he recognized the disagreement surrounding the validity of SBS, the circuit court still failed to perform its vital gatekeeping function of determining whether the State had shown Dr. Lakin’s expert opinion testimony on SBS to be reliable. *See* M.R.E. 702 advisory committee note. As stated by the circuit judge himself, the *Daubert* hearing he conducted was only to determine “the matter of [Dr. Lakin’s] qualification to testify as an expert.” The circuit court undertook no *Daubert* analysis of SBS itself or its competing theories. When Josh’s attorney requested the opportunity to additionally voir dire Dr. Lakin on the reliability of her expert testimony, the circuit judge stated, “Well, I made a determination she is qualified to testify . . . you can cross-examine her any way you want . . . I think [that is] what cross-examination is all about”

¶44. This statement by the circuit judge highlights the precise issue upon which our reversal of Josh’s conviction and sentence is based. The whole purpose of Mississippi’s *Daubert* standard is to ensure that expert testimony provided to a jury is both relevant and reliable, not to determine whether the proposed expert is in fact an expert. *McLemore*, 863 So. 2d at 36 (¶11). After all, it is our *Daubert* standard that requires the court, not the jury,

to be the gatekeeper of evidence. *Id.* at 37 (¶14). Here, however, the circuit court left the determination of reliability to the jury and the cross-examination skills of Josh’s trial attorney.

¶45. We also note that, other than stating that he had determined Dr. Lakin was qualified to testify, the circuit judge made no actual on-the-record findings regarding her qualifications or the reliability of her expert testimony. We find this to be an abuse of discretion. In *Carlson v. Bioremedi Therapeutic Systems Inc.*, 822 F.3d 194, 201 (5th Cir. 2016), the Fifth Circuit of the United States Court of Appeals found “the district court clearly abused its discretion by not conducting a *Daubert* inquiry or making a *Daubert* determination on the record.”⁷ As the Fifth Circuit explained:

[W]e agree with three of our sister circuits that a district court must still perform its gatekeeping function by performing some type of *Daubert* inquiry and by making findings about the witness’s qualifications to give expert testimony. At a minimum, a district court must create a record of its *Daubert* inquiry and articulate its basis for admitting expert testimony.

Id. at 201 (citations omitted). Furthermore, as the Fifth Circuit noted, “[a]n expert’s testimony must be reliable at each and every step or else it is inadmissible.” *Id.* (internal quotation mark omitted).

¶46. SBS as a scientific methodology or diagnosis on its own must also be shown to be reliable. *See McLemore*, 863 So. 2d at 37 (¶13). Yet Dr. Lakin failed to, and was wholly unable to, cite any specific studies supporting SBS as a diagnosis. Dr. Lakin’s SBS theory

⁷ While not binding on this Court, we still find the Fifth Circuit’s holding insightful and relevant, especially in light of the fact that the Mississippi Supreme Court restyled the Mississippi Rules of Evidence in 2016 to be consistent with the Federal Rules of Evidence. M.R.E. 101 advisory committee note.

was, by her own admission, based upon assumptions. Dr. Lakin did not apply any known and tested theories or consult any citable current literature. She relied on a statement from the AAP—a position statement that was updated in 2008-2009 to focus not on SBS but to utilize the term AHT.⁸ Yet, Dr. Lakin could not directly quote the statement. Nor did she analyze SBS methodology in light of its criticisms to determine if SBS remains a reasonable diagnosis. Dr. Lakin explained only that SBS was a reasonable diagnosis because it was based on the AAP statement.

¶47. For the reasons discussed above, we conclude the circuit court abused its discretion because Dr. Lakin’s expert testimony as to the cause and timing of Kyllie’s death, though

⁸ The AAP’s current statement on SBS, reaffirmed in 2017, expressly states that the authors were compelled “to modify our terminology to keep pace with our understanding of pathologic mechanisms. Although shaking an infant has the potential to cause neurologic injury, blunt impact or a combination of shaking and blunt impact cause injury as well.” Cindy W. Christian, Robert Block, & the Committee on Child Abuse and Neglect, *Abusive Head Trauma in Infants and Children*, Pediatrics, Vol. 123, Issue 5, 1409 (American Academy of Pediatrics May 2009). It further states:

[M]edical and biomedical research, clinical and pathologic experience, and radiologic advances have improved our understanding of the range of mechanisms that contribute to brain injury from AHT, yet controversy remains. . . . Controversy is fueled because the mechanisms and resultant injuries of accidental and abusive head injury overlap, the abuse is rarely witnessed, an accurate history of trauma is rarely offered by the perpetrator, there is no single or simple test to determine the accuracy of the diagnosis, and the legal consequences of the diagnosis can be so significant. . . . 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. . . . Consultants in radiology, ophthalmology, neurosurgery and other subspecialties are important partners in the medical evaluation and can assist in interpreting data and reaching a diagnosis.

Id. at 1410.

relevant, was unreliable and failed to meet the criteria required by *Daubert* and Rule 702. We further find the error of admitting Dr. Lakin's testimony was magnified since Dr. Lakin's testimony as to those issues was the only evidence to support the State's theory of the case.⁹ The defense attacked SBS's reliability with credible evidence, in the form of numerous cites to studies and peer-reviewed articles, that reflected the scientific community may no longer wholly accept SBS.¹⁰ Thus, at the very least, the State should have provided either a minimal defense of articles or other expert testimony to support the reliability of the opinion. *See Patterson v. Tibbs*, 60 So. 3d 742, 750 (¶28) (Miss. 2011) (“[W]hen an expert renders an opinion that is attacked as not accepted within the scientific community, the party offering that expert's opinion must, at a minimum, present the trial judge with some evidence indicating that the offered opinion has some degree of acceptance and support within the scientific community.”). This the State failed to do.

¶48. Our review reflects that Dr. Lakin's proffered testimony fell well short of *Daubert*'s expectations and should therefore have been excluded. There was no proof that the medical

⁹ The dissent maintains that the State presented additional evidence to support Josh's conviction. The additional evidence to which the dissent refers, however, is speculative at best and focuses on Josh's reaction once Bethany and the other girls expressed concern about Kyllie's condition rather than providing support for the State's theory as to the cause and timing of Kyllie's injuries.

¹⁰ In cases ranging from the United States Supreme Court to the courts of our sister states, challenges to the science of SBS/AHT reflect that SBS/AHT as a diagnosis falls well short of being judicially noticed. *See Cavazos v. Smith*, 565 U.S. 1, 13-14 (2011) (Ginsburg, J., dissenting); *Del Prete v. Thompson*, 10 F. Supp. 3d 907, 954-57 (N.D. Ill. 2014); *Commonwealth v. Epps*, 53 N.E.3d 1247, 1260-66 (Mass. 2016); *People v. Bailey*, 999 N.Y.S.2d 713, 724-27 (N.Y. Ct. 2014); *State v. Edmunds*, 746 N.W.2d 590, 596-99 (Wis. Ct. App. 2008).

science, as opined by Dr. Lakin, reliably explained the biomechanical processes by which SBS or AHT develop. There was also no proof that the medical science, as discussed by Dr. Lakin, reliably aided the jury in understanding the cause and timing of Kyllie’s injuries. Dr. Lakin was unable to provide the court or jury with any scholarly literature to support the validity of her diagnosis. No differential diagnosis was considered. In short, neither the State nor Dr. Lakin provided any scientific studies or medical literature—current or otherwise—to support the indictment’s charge of injury inflicted by shaking or to support Dr. Lakin’s opinion that Kyllie’s breathing troubles started at approximately the same time as the infliction of the injuries. For these reasons, we find that Dr. Lakin’s testimony on SBS was unreliable and that the circuit court erred in admitting it.

CONCLUSION

¶49. Because we find the circuit court abused its discretion by admitting into evidence Dr. Lakin’s expert testimony at the *Daubert* hearing, we reverse Josh’s conviction and sentence for second-degree murder. Due to our discussion and disposition on these issues, we decline to address Josh’s remaining issues on appeal, and we remand this case to the circuit court for a new trial consistent with this opinion.¹¹

¹¹ See *Lockhart v. Nelson*, 488 U.S. 33, 40 (1988) (holding that “the Double Jeopardy Clause allows retrial when a reviewing court determines that a defendant’s conviction must be reversed because evidence was erroneously admitted against him, and also concludes that without the inadmissible evidence there was insufficient evidence to support a conviction” when, “clearly *with* that evidence, there was enough to support the sentence”); *Campbell v. State*, 798 So. 2d 524, 530 (¶22) (Miss. 2001) (reversing the defendant’s murder conviction and remanding for a new trial after finding error in the admission of both the defendant’s statement to authorities and his blood-stained clothing and holding that the remaining admissible trial evidence was insufficient to support his conviction); *Hillard v. State*, 950 So. 2d 224, 230-31 (¶¶28-30) (Miss. Ct. App. 2007) (reversing the defendant’s convictions

¶50. REVERSED AND REMANDED.

GREENLEE, WESTBROOKS, McDONALD, McCARTY AND C. WILSON, JJ., CONCUR. J. WILSON, P.J., CONCURS IN RESULT ONLY WITHOUT SEPARATE WRITTEN OPINION. LAWRENCE, J., DISSENTS WITH SEPARATE WRITTEN OPINION, JOINED BY BARNES, C.J., AND CARLTON, P.J.

LAWRENCE, J., DISSENTING:

¶51. I respectfully disagree with the majority that the circuit court erred in admitting Dr. Lakin’s testimony. The majority’s claim that her testimony “failed to meet the *Daubert*¹² standard and was so unreliable as to render portions of her testimony inadmissible” is misplaced. For over twenty years, the standards set forth in *Daubert* have governed admission or denial of expert testimony in trial courts across the United States. These standards, however, are not an exhaustive list that trial courts must check off to determine if a witness is qualified as an expert. *Miss. Trans. Comm’n v. McLemore*, 863 So. 2d 31, 36 (¶13) (Miss. 2003). In fact, when the supreme court adopted the standards of this State, set forth in *McLemore*, it made crystal clear:

We are confident that our learned trial judges can and will properly assume the role as gatekeeper on questions of admissibility of expert testimony The trial court can identify the specific indicia of reliability of evidence in a particular technical or scientific field

McLemore, 863 So. 2d at 39-40 (¶25). Further, the supreme court said, “We are certain that

after finding error in the admission of accomplice testimony and holding that, even though “there was quite meager evidence to sustain” one of the convictions, the proper result was still to remand for a new trial); *Gavin v. State*, 785 So. 2d 1088, 1095 (¶28) (Miss. Ct. App. 2001) (“Even when the *only* evidence on an issue has been declared inadmissible, the proper procedure is to remand.”).

¹² *Daubert v. Merrell Dow Pharmaceuticals Inc.*, 509 U.S. 579 (1993).

the trial judges possess the capacity to undertake this review.” *Id.*

¶52. Respectfully, I fear that the majority’s opinion will now either be precedent to create an expert-admission standard so high that it will be impossible to reach, or it will be considered a new declaration that this Court will now take it upon itself to be the gatekeeper of expert testimony and no longer trust the trial courts to do their jobs. Here, the circuit judge heard hours of testimony from Dr. Lakin at the *Daubert* hearing and applied his discretion in determining that Dr. Lakin was qualified to be accepted as an expert and that her opinions were sufficiently reliable. The majority asserts that determination was an abuse of discretion. I disagree.

¶53. The reason for my dissent is threefold. First, I do not believe the circuit court abused its discretion by allowing Dr. Lakin to testify as an expert witness about the injuries she found on Kyllie and the effect those injuries would have had on that child. Second, I disagree with the statements made by the majority concerning the facts of this case and that Dr. Lakin’s opinions were the sole basis for guilt. Finally, this trial was a battle of the experts. Both parties proffered experts witnesses offering different opinions. Those experts were vigorously cross examined by each side. The jury heard both experts’ testimonies and arguments of the parties as to their opinions and found contrary to Josh’s. This Court should not now second guess that battle of the experts only because Josh argues on appeal that one expert was unreliable while his expert was reliable. For these distinct reasons, I respectfully dissent.

I. Dr. Lakin’s Qualifications

¶54. The majority reverses Josh’s conviction because it finds that Dr. Lakin was unqualified to testify based on the unreliability of the science used to form her conclusions. I disagree. Before this Court summarily announces Dr. Lakin’s opinions as unreliable, a review of her qualifications is essential. Dr. Lakin is a medical doctor practicing in the specialty of pediatrics. She is licensed as a pediatrician in both Tennessee and Mississippi. She has an undergraduate degree from Duke University, a graduate degree in public health from the University of North Carolina at Chapel Hill, and a medical degree from East Carolina University Medical School. She completed her residency in pediatrics at Le Bonheur Children’s Hospital and at the University of Tennessee. She is Board Certified in the specialty field of child-abuse pediatrics by the American Academy of Pediatrics, which requires an examination and a prolonged period of practice in the field. She has practiced pediatric medicine for many years and presently serves as the director of Le Bonheur Children’s Hospital. Dr. Lakin is currently an assistant professor of pediatrics at the University of Tennessee and a general practicing physician in Tennessee and Mississippi. Dr. Lakin was recognized in the field of pediatrics through her invitation only induction to the Helfer Society, which is a nonprofit honorary society for child abuse pediatricians. Dr. Lakin’s professional background included working for the Raleigh Group in Memphis, Tennessee, and practicing as a general pediatrician at the University of Tennessee. Dr. Lakin began assisting the primary child-abuse physician at Le Bonheur Hospital in 1999, and she later became the medical director for the Le Bonheur Cares Team in 2006.

¶55. Dr. Lakin testified that she has lectured “extensively” on abusive head trauma (AHT).

As discussed above, she is an assistant professor of pediatrics at the University of Tennessee, which requires her to maintain up-to-the-minute knowledge of her field in order to speak to groups and lecture her students. She is a member of the American Academy of Pediatrics and the Tennessee Academy of Pediatrics. She serves on the Shelby County Child Fatality Review, which was an advisory committee for the State of Tennessee’s Department of Children Services. She also worked with a state-wide advisory committee that handled child abuse exclusively in Shelby County, Tennessee. Finally Dr. Lakin has been named as one of the “Best Doctors” between the years 2002 to 2013, and was a 21st Century Scholar in the Department of Preventative Medicine. She has also received awards for cancer work and a medical humanities award.

¶56. Dr. Lakin has been recognized as an expert and testified as an expert in child-abuse pediatrics for both the prosecution and the defense in “over a hundred” cases in Arkansas, Tennessee, Missouri, and Mississippi. Notably, she was never refused as an expert in those cases. Dr. Lakin has been recognized by courts all over this state, time and time again, as an expert physician with a specialty in the area of child abuse. There are numerous cases where she has testified similarly to the issues in this case, and those cases were affirmed by this Court and the Mississippi Supreme Court.¹³ To say the trial court abused its discretion in its

¹³ In *Middleton v. State*, 980 So. 2d 351 (Miss. Ct. App. 2008), this Court recognized that Dr. Lakin’s “testimony regarding child trauma and abuse was appropriate, and the trial court did not err in allowing her testimony.” *Id.* at 359 (¶31). The majority claims that “any reliance on similarities with Dr. Lakin’s prior testimony in *Middleton* is misplaced.” I wholeheartedly disagree for two distinct reasons. First, this Court has held that Dr. Lakin is qualified as an expert in her field. Second, in that case, the defendant argued that SBS was not a “generally accepted theory in the medical community,” and we were charged with considering that argument. *Id.* at 356 (¶17). In *Middleton*, we found that the experts

gatekeeper function now when she has been recognized as such an expert in four states and affirmed as such expert by the appellate courts of this state, is a stretch of legal significance and has far reaching ramifications in child-abuse cases. To find her testimony unreliable after a career of studying, treating, and teaching child abuse cases raises reliability hurdles so high as to essentially make it impossible to know with certainty what is the rule and what is the exception. I would find the circuit court did exactly what the supreme court has ask that the courts do. Specifically, I would find that the circuit court did not abuse its discretion in finding Dr. Lakin imminently qualified to render an expert opinion about Kyllie’s injuries. Further, I would find that the opinions rendered by Dr. Lakin were not unreliable, untested, or unscientific. In sum, her opinions were based on what type of injuries Kyllie had, what symptoms would come from those injuries, and what someone with Kyllie’s injuries could or could not do.

II. Admissibility of Dr. Lakin’s Opinions

¶57. The majority takes issue with Dr. Lakin’s analysis and conclusions concerning the window of time that Kyllie’s injuries could have occurred. The majority reasons that the

presented at trial, including Dr. Lakin, were able to testify to “the types of injuries present and clearly indentif[y] their basis for concluding the injury was most likely cause by adult intervention.” *Id.* at 356 (¶20).

Also, in *Isham v. State*, 161 So. 3d 1076 (Miss. 2015), Dr. Lakin testified that a abused child showed signs of similar hemorrhages to Kyllie and that these “were consistent with abusive head trauma.” *Id.* at 1080 (¶17). While the supreme court overturned *Isham*’s conviction because he was not afforded an opportunity to hire an expert witness to rebut Dr. Lakin’s testimony, the supreme court noted that it was only because “the trial court deprived *Isham* of his right to a fair trial when it denied him funds to procure opposing experts.” *Id.* at 1084 (¶38). The supreme court did not make any mention of Dr. Lakin’s inability to issue such an expert opinion.

science behind Dr. Lakin's conclusions is flawed. As a result, the majority finds that Dr. Lakin inappropriately testified to the range of time in which Kyllie was injured. I disagree.

¶58. The State presented an abundance of evidence about Kyllie's injuries to the jury. Those injuries were extensive. Dr. Lakin walked the jury through each and every injury that the child presented at Le Bonheur Children's Hospital. The four month old suffered a cerebral edema, otherwise known as swelling of the brain. Her CT scan also indicated she had a subdural hemorrhage, along with a intraventricular and intraparenchymal hemorrhage. Both of these injuries, in layman's terms, result from bleeding in different parts of the brain. Dr. Lakin testified that not only was Kyllie's brain bleeding, but the brain tissue was also bruised. Kyllie's eye exam revealed bilateral retinal hemorrhages that Dr. Lakin testified were particularly significant "because the more extensive the hemorrhages are, then the more they correlate with the acceleration/deceleration type injuries." The child also presented with what physicians thought to be a right healing clavicle fracture and healing fractures on her right and left ribs. Dr. Lakin testified that there were no external injuries to Kyllie's head, which could have indicated a fall and was the defense's alternative theory. Dr. Lakin found that the swelling of Kyllie's brain is what ultimately caused her death.

¶59. On direct examination, Dr. Lakin described for the jury what injuries of this nature would have symptomatically produced:

- Q. After receiving these fatal injuries, would Kyllie have been able to function?
- A. No. Well, when you say function, her – her typical activities, which are not a whole lot of activities in a four-month-old, but would not be considered normal, no.

Q. In other words, her – well, I won't put it in other words. But would she have been able to cry –

A. No.

Q. – after suffering these injuries?

A. Not – no.

Q. Okay.

A. Probably during the event, but no – she would lose consciousness very quickly.

Q. Would she have been able to eat or be fed?

A. No.

It is important to note that Dr. Lakin never pinpointed an exact time that the child was harmed. She did not provide an arbitrary time-stamp of guilt, which I think is what concerns the majority. Dr. Lakin instead explained that based on the statements Josh made to the medical team treating his daughter, Kyllie was acting normally when she ate around 5:00 p.m. but was gasping for air around 5:30 p.m. when Bethany arrived at the house. On direct examination, her testimony was further explained as follows:

Q. Based on the history given to you – and you remember I asked you early on to the parameters of what I would ask you to base your answers on early on in this examination. Based on those factors and the history given to you, do you have an opinion to a medical certainty as to a range of time when these injuries would have been received by Kyllie Clark?

A. Based on the history that was given to me, it would have to be sometime between her most recent normal activity, it would be sometime after her most recent normal activity to the time when she was found unconscious. And so, in my experience, the symptoms are immediate.

Q. And the last time of normal activity, as given to you in the history, was?

A. 5:00 when she ate.

Dr. Lakin was merely testifying to what Josh reported to her, not giving an expert medical opinion that the injury happened at a certain time. Her medical opinion was that this child could not act normally with the injuries she found. That opinion is certainly within her medical expertise and was fully cross examined by the defense. To further show that she did not do what Josh claims, consider the following which occurred on direct examination:

Q. And so you're not saying who committed the abuse?

A. That's correct.

Q. And you're just diagnosing it as that?

A. That's correct.

It is clear from this exchange that Dr. Lakin was not pointing a finger of guilt at anyone in particular. In fact, when the above two exchanges on direct examination are read together, along with her other testimony about the types of injuries Kyllie had, it is clear that she was merely repeating the time frame Josh gave her and not saying that Josh committed this crime because of that time frame. On cross examination, Dr. Lakin explicitly testified five different times that she could not say "who" caused the injuries found on Kyllie. That is a major distinction that should be taken into consideration when evaluating the reliability of Dr. Lakin's opinions at trial. Josh's argument that she eliminated everyone except him is simply not true. She stated she could not say who committed the abuse.

¶60. Dr. Lakin concluded that Kyllie was a victim of abusive head trauma based on the

history Josh gave her, along with the injuries discussed above. At the *Daubert* hearing, Dr. Lakin told the court that the severity of the injury was crucial in determining the timing of the injuries themselves. At trial, Dr. Lakin consistently testified that “the more severe the injury, the closer in time it is as to when it has occurred.”

¶61. Further, when someone has a severe brain injury, as was seen in this case, that person cannot function normally (i.e., eating, breathing, etc.). On direct examination, Dr. Lakin told the jury that she would not have expected Kyllie to eat “at all” with a head injury of this magnitude. The majority claims that Dr. Lakin contradicted herself on cross examination when she told the jury that she “could not determine the exact time of Kyllie’s injuries.” That is exactly what Dr. Lakin testified to on direct examination. Her expert medical opinion was expressed during cross examination as follows:

I’m not saying that you can put it down to a couple of hours based on the radiological data or the path – the autopsy findings. What I’m saying is that the – there is literature talking about the fact that a severe head injury would not – the child would not have an absence of symptoms and develop [the symptoms] later. And the more severe the injury, the more likely it is the shorter period of time because they can’t survive.

Dr. Lakin simply explained that a child would display symptoms more quickly, depending on the severity of the injury.

¶62. Based on Dr. Lakin’s training, education, and experience, she was certainly qualified to render that opinion. Dr. Lakin did not make up the times. She did not formulate her conclusions based on some unreliable expert opinion. Her opinions, as presented to the jury, were supported by Josh’s statements to her concerning Kyllie’s history and the axiomatic medical doctrine that the more severe the injury the quicker one would see symptoms.

III. Additional Evidence of Guilt Presented to the Jury

¶63. The majority complains, in an effort to heighten the seriousness of the alleged error by the circuit court, that the State relied “solely on the basis of Dr. Lakin’s expert testimony” and that Josh was found guilty of second-degree murder as a result of that testimony. I disagree that Dr. Lakin’s opinions were the sole basis for a jury conviction. While it may be true that Dr. Lakin’s testimony explained the science behind Kyllie’s cause of death and her functionality in the moments leading up to it, the jury was still presented with a myriad of evidence from both the State and the defense to support a conviction.

¶64. One of the most crucial pieces of evidence given to the jury was Josh’s sworn statement. The statement, which Officer John Hillhouse took the day after Kyllie died, was entered into evidence and read into the record at the trial. Josh testified that the statement and the facts contained within were “as accurate as [he could] recall.” The statement indicated that Bethany was asleep until around 2:00 p.m. on January 5, 2008. Bethany, Morgan, and Haley went to run errands while Josh stayed home with the twin babies. The babies were fed and burped and, according to Josh, were “being good.” Josh then sat Kyllie in an arm chair while he played video games. After a little time had passed, Josh went to the restroom for “thirty seconds.” When he returned, he stated that he noticed “[Kyllie] made a gasping sound before [Bethany] got home.” This occurred five to ten minutes before Bethany returned. Kyllie gasped more than once during that time period. During his testimony at trial, Josh told the jury that “[he] never assumed that anything was wrong with Kyllie” while she was struggling to breathe. Once Bethany and the children got home,

instead of immediately calling 911, Josh took Kyllie to the bedroom.

¶65. The jury also heard the testimonies of Bethany Clark and Haley Parker. Bethany specifically outlined her observation of Josh’s reaction to their daughter’s condition. Bethany testified that when she returned home from running errands, Haley immediately dropped her bags at the door and said, “[O]h, my god, what happened?” Bethany walked through the door of the home and saw Kyllie lying in the corner of the recliner next to Josh. Josh was playing a video game while the four month old “was gasping for breath,” and Bethany immediately knew something was wrong. Bethany told the jury that her daughter’s eyes were “clouded over” and that she could see “nothing in [Kyllie’s] face.” The scenario that Bethany described next is chilling:

A. And I said, *What happened?* He said, *Nothing.* I said, *She’s got to go to the doctor.* He said, *She’s fine.* I said, *No, she’s not.* And he picks her up and he’s holding her, and her body is just limp. And he walks to the back.

Q. All right. Tell me what happened once he – once he picked up the baby, I believe you said he headed to the back of the home?

A. Yeah, he went to the bedroom. He was headed to our room at the end of the trailer, and I followed him back there. And he went to lay her down, and I went to get her. As soon as I went to get her, he come back and he was, like, *No.* He didn’t want me to get her. And I was, like, *I got to take her.* And he’s, like, *No, she’s fine.* And I had to push him off so I could take her. And I got to the living room, and I hit the floor and I started CPR.

The evidence presented to the jury was that Kyllie’s condition was so dire that Bethany had to immediately begin CPR once she finally was able to pry Kyllie away from Josh.

¶66. Haley Parker, who lived with Josh and Bethany at the time, described a similar

scenario for the jury. When she arrived home with Bethany, Haley saw that Kyllie “had one eye that looked like it was, like closed, and one eye open.” She told the jury that Kyllie “would take one little breath, and then it would stop,” and that the child was “gasping for air.” She saw Josh pick the child up and take Kyllie to the bedroom. During this whole time, Haley testified that Josh kept saying “she’s fine” and that “[s]he’s been doing that all day.”

¶67. Before the jury ever heard from Dr. Lakin, they were given Josh’s sworn statement, the testimony of Officer Hillhouse about how that statement was acquired, and Bethany’s testimony that detailed Josh’s strange actions once Kyllie began to exhibit symptoms of distress. After hearing all of this evidence, the jury then heard Dr. Lakin’s testimony. During her cross examination, Dr. Lakin told the court that the history obtained from the parents was the first step in any diagnosis. Dr. Lakin testified that based on the “history obtained from the parents, [Kyllie] had been at home and had been in the care of [Josh].”

That history also included the following facts:

And there were three other children, I believe, that were in the home at the time. [Kyllie] was playing – by history, [Kyllie] was playing around 3:00 p.m. in a playpen, and she was four months old and also had a twin. All the children were fed. The twins were fed formula and cereal around 5:00 p.m. And [Josh] reported to us that [Kyllie] gasped. And around 5:30, the mother came home with two other friends, and they noticed that [Kyllie] was having difficulty breathing.

¶68. The defense put forth the theory that Kyllie’s death was caused by being dropped, which could have occurred before Kyllie was in Josh’s sole care. The defense’s expert, Dr. Shuman, testified that the injuries seen in Kyllie did not automatically indicate shaking had occurred. Furthermore, Dr. Shuman testified that resuscitation efforts, like performing CPR,

can make some of the injuries, like Kyllie's retinal hemorrhages, more pronounced. The jury heard Dr. Shuman's testimony and was able to consider a clear alternative to Dr. Lakin's conclusion of AHT.

¶69. *Daubert* made clear that “[v]igorous cross examination, presentations of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *McLemore*, 863 So. 2d at 36 (¶12) (citing *Daubert*, 509 U.S. at 595-96). This statement, I suspect, was designed to calm the nerves of trial lawyers and judges in knowing that the familiar tools of cross examination and presentation of contrary evidence were still available despite the new rule of admission of expert testimony. After *McLemore*, it is clear that the parties are still allowed to attack the opposing expert's opinions and call their own experts in that effort. *Galloway*, 122 So. 3d at 632 (¶¶27-28) (Miss. 2013). The only limitation on that effort is that the expert must be properly qualified, their opinions sufficiently reliable, and the testimony relevant to the issues in the litigation. *Id.* That is exactly what happened in this trial.

¶70. The defense extensively cross examined Dr. Lakin about her opinions and how she came to her conclusions. The defense went through articles and other expert opinions questioning the type of injuries that Dr. Lakin found in this case. The defense presented every possible explanation for Kyllie's death besides SBS. They exhaustively cross examined Dr. Lakin about Kyllie's symptoms, other possible causes of those symptoms, other medical explanations of those symptoms, and their own expert's theories. As if that was not enough, on cross examination the defense went further. They even asked Dr. Lakin about

her own divorce, psychological projection, past lawsuits, times she had previously testified in a case where a former Tennessee Assistant District Attorney had been fired, and papers that she had published concerning the topics of SBS. To say this was a lengthy cross examination does not do justice to the vigor to which it was carried out. I do not fault the defense for this. In fact, I commend the defense for performing an essential and necessary trial function that, more often than not, allows the truth to surface. In addition to that lengthy and thorough cross examination of the State's expert witness, the defense offered its own expert witness who gave contrary opinions to Dr. Lakin and presented alternative theories of injuries.

¶71. The majority notes in footnote nine that this abundance of evidence is “speculative, at best.” Respectfully, I disagree. The testimony and evidence presented to the jury was theirs to consider. The circuit court instructed the jury to make their decision “based on the evidence and the law and not upon speculation, guesswork or conjecture.” Here the jury did just that and found Josh guilty of killing Kyllie. This Court should not second guess a jury verdict and imply prejudice by the State's expert when the whole trial was a battle of the experts and the defense not only fully cross examined Dr. Lakin but also was allowed to introduce its own contrary expert testimony to the jury.

¶72. At that point, the decision was in the hands of the jury. It is not the job of this Court to overlook the entirety of the evidence presented before the jury and overturn a conviction because there is “some disagreement” in the medical community about an issue that was fully vetted in front of the jury. The jury determines the factual issues in dispute in a trial and

prescribes the credibility or not of the witnesses who testified before the jury. Because I believe that the circuit court appropriately performed its function as a gate keeper in determining Dr. Lakin's expertise and the reliability of her opinions, and because there is no evidence to suggest the circuit court abused its discretion in that process, I would affirm Josh's conviction.

BARNES, C.J., AND CARLTON, P.J., JOIN THIS OPINION.