## IN THE SUPREME COURT OF MISSISSIPPI

## JEFFREY HAVARD, Petitioner

vs.
CAUSE NO. 2013-DR-01995-SCT

## STATE OF MISSISSIPPI, Respondent

## AFEIDAVIT OF DR. STEVENT.HAYNE

## STATE OF MISSISSIPPI

COUNTY OF HINDS

I, the undersigned, Dr. Steven T. Hayne, being over the age of twenty-one (21) years, and competent to testify to the matters set forth herein, do hereby state the following:

I am a physician practicing in the fields of anatomic, clinical, and forensic pathology. I graduated from medical school at Brown University and did my pathology training at Letterman Army Medical Center at the Presidio at San Francisco, California. I was affiliated with the Medical Examiner's Office with the Mississippi Department of Public Safety for many years.

On February 22, 2002, I performed an autopsy on Chloe Britt. Following that autopsy, I prepared a Final Report of Autopsy.

In December of 2002, I testified at the trial of Jeffrey Havard in the Circuit Court of Adams County, Mississippi. Mr. Havard was charged with capital murder in the death of Chloe Britt.

I recently reviewed the Final Report of Autopsy, my trial testimony in State v. Havard, and other documents related to the Havard case.

I have reviewed the article written by Jerry Mitchell, and published in the Clarion-Ledger newspaper on January 19, 2014, a copy of which is attached hereto as Exhibit "A" and incorporated herein by reference. The article includes statements and direct quotations attributed

to me. I recall making those statements and quotations, they are accurate, and I stand by them to this day.

Prior to trial and before taking the witness stand at trial, I informed the prosecutor, Ronnie Harper, and members of his office that I could not support a finding of sexual abuse in this case

My statements in this affidavit and in the newspaper article attached as Exhibit "A" are made to a reasonable degree of medical certainty.

I am willing to be deposed or testify to the Court regarding my autopsy of Chloe Britt and related opinions. Indeed, I would prefer to testify regarding all matters related to Mr . Havard's case.



DR. STEVEN T. HAY NE

## STATE OF MISSISSIPPI

## COUNTY OF HINDS

PERSONALLY APPEARED BEFQRE ME, the undersigned authority, in and for aforesaid county and state, on this the $X P$ day of , 2014, within my jurisdiction, the within named, Dr. Steven T. Hayne, who acknowledged to me that he executed the above and foregoing instrument for the purposes therein stated.


## The Death of Chloe Britt: Capital murder or accidental fall?

Thousands of Americans are behind bars, convicted of shaking babies to death - and some experts now say the science that put them there is blurry. Since 2000, at least 11 Mississippians have beenconvicted in such cases with two of them sitting on death row. Jeffrey Havard is one of them.

Thousands of Americans are behind bars, convicted of shaking babies to death - and some experts now say the science that put them there is blurry.

Since 2000, at least 11 Mississippians have been convicted in such cases with two of them sitting on death row. Jeffrey Havard is one of them:

Lab technician Shelley Smith dashed into the emergency room of Natchez Community Hospital, holding the limp body of an infant. The skin of 6-month-old Chloe Madison Britt looked blue.
"The baby isn't breathing," Smith screamed. "Call a code."
It was Feb. 21, 2002, a Thursday night in Natchez, hardly as busy as the weekends when they treated their share of bar-stabbing and car-crash victims.

Nurse Patricia Murphy heard the Code 300 - anyone available should rush to the emergency room and dashed down to where doctors and nurses were already working on the baby, who had no pulse.

At 10:04 p.m., they got their first ray of hope. Chloe's skin began to turn pink.
They could see bruises on her forehead and the front of her thighs. A nurse removed her diaper to take her temperature and said, "Look at this."

They noticed the baby's rectum was dilated and called police.

Not long after, they lost her pulse. Her face swelled; so did her brain. By 10:50 p.m., doctors declared her dead.

Nine days before Christmas, prosecutors and defense lawyers selected a jury for the capital murder trial of Jeffrey Havard, the 22-year-old boyfriend of Chloe's mother, Rebecca. In his opening statement, Assistant District Attorney Tom Rosenblatt told jurors, "Dr. Steven Hayne will come and testify for you and how he confirmed the nurses' and doctors' worst fears this child had been abused and this child had been penetrated, and the child had died (of) what he refers to as shaken baby syndrome."

Defense lawyer Robert Clark told jurors the child had slipped from Havard's arms after he gave her a bath, her head striking a toilet. "Jeffrey did not intend to kill this child," he said. "This was an accident."

Chloe's mother, Rebecca, testified Havard was in the bathroom when she arrived home and she went into
the bedroom, where Chloe was sleeping, and found she wasn't breathing.

She said she tried resuscitation, and they rushed to the hospital.
Havard never mentioned anything happening to the baby, she said.
Jurors watched a videotaped statement in which Havard told deputies he had given Chloe a bath and that he had accidentally dropped her.
"She just kind of gasped for air like I had scared her," he said. "So I took her, and I shook her. I didn't shake her hard. I don't think I did."

She cried, and he comforted her and thought she was OK when he put her back to bed, he said.

When deputies asked him about injuries to her anal area, he said his finger might have slipped. "Maybe I went too far in on her when I was wiping her out, inside of her butt," he said.

One by one, doctors, nurses and others described an anal dilation the size of a quarter. One by one, they described injuries to the anal area - tears, lacerations and blood oozing from the rectum. One by one, they testified these injuries proved sexual assault.

Amy Winter, a forensic biologist with the State Crime Lab, testified she used a rape kit and found no semen or foreign DNA.

Under cross-examination, prosecutors asked her if a bath - which Havard told deputies he had given Chloe before she fell - could have gotten rid of such evidence. She said yes.

All the doctors concluded Chloe had died of shaken baby syndrome, and so did Hayne, who performed the autopsy.
"The type of injuries that you can see that parallel these are in motor vehicle crashes, falls from significant heights and the like, sir," Hayne said.

Asked by District Attorney Ronnie Harper at trial about the injuries to the rectal area, Hayne replied, "It would be consistent with penetration of the rectum with an object, sir."

The jury deliberated 40 minutes before convicting Havard of capital murder. Havard's mother and grandmother begged for jurors to spare his life, but jurors concluded he deserved death.

Circuit Judge Forrest Johnson asked Havard if he had anything to say before sentencing.
"I am innocent of this," Havard replied.

The judge remarked, "Just when you think that you have seen everything and that you have seen or heard of the absolute low point of evil and human depravity, someone like you comes along and shows us a new low in human behavior."

He then sentenced Havard to die by lethal injection.

Pediatric neurosurgeon Dr. Norman Guthkelch had wondered about a medical mystery reported for decades - some babies bleeding atop their brains, despite little outside evidence of head trauma.

When a colleague suffered similar bleeding after riding a roller coaster, Guthkelch suggested whiplash-type injuries were to blame. He published a paper in 1971, warning parents about the dangers of shaking their children.

In the years that followed, shaken baby syndrome became widely accepted in the medical community, diagnosed through a triad of symptoms: subdural bleeding (blood collecting between the brain and the skull), retinal bleeding (bleeding in the back of the eye) and brain swelling.

Courts recognized the syndrome, and the triad became proof of fatal abuse - "a medical diagnosis for murder," said Deborah Tuerkheimer, author of the new book, "Flawed Convictions: 'Shaken Baby Syndrome' and the Inertia of Injustice."

In 1987, public questions began to arise when biochemical engineers from Penn State University tested the hypothesis. They found shaking alone failed to cause the blood vessels in the brain to rupture. It was only when the head made impact that researchers observed bleeding in the brain.

Despite the findings, shaken baby syndrome continued to be diagnosed and used to prosecute.
In 1995, prosecutors in Wisconsin charged caregiver Audrey Edmunds with murder, concluding she had shaken 7-month-old Natalie Beard to death - despite no witnesses and no outside evidence of trauma.

She told authorities the child was fussy and so she left her with a bottle. When she returned from helping other children, Edmunds found Natalie unresponsive.

At trial, medical experts for the prosecution told the jury that only shaking could explain the injuries, comparing them to a speeding car hitting the baby.

The jury convicted Edmunds, who insisted on her innocence but had no explanation for the injuries. The judge sentenced her to 18 years in prison.

In the years since, medical belief that the shaken baby syndrome's triad of symptoms provided ironclad proof of homicide has begun to crumble with several studies raising doubts.

Some biomechanical studies suggest shaking a baby to death would be impossible without also injuring the child's neck or spine.

In 2009, the American Academy of Pediatrics recommended the diagnosis of the syndrome be discarded and replaced with "abusive head trauma."

Despite the changes, Americans continue to be prosecuted using shaken baby syndrome testimony, with thousands already convicted, said Tuerkheimer, a professor at DePaul University College of Law.

In 2008, the Wisconsin Supreme Court granted Edmunds a new trial.
The emergence of a "significant dispute within the medical community as to the cause of those injuries
constitutes newly discovered evidence," the court concluded.
Her previous trial and hearing lacked "fierce debate," justices wrote. "Now, a jury would be faced with competing credible medical opinions in determining whether there is a reasonable doubt as to (her) guilt."

After the Wisconsin court's decision, prosecutors dismissed the charges against Edmunds, and the mother of three girls walked free from prison, reuniting with her now grown children after 11 years in prison.
"It never, ever got easier, and I never got used to it," she told Madison Magazine in Wisconsin. "But hope became my religion. Without hope, you're crushed."

Mississippi Rep. Kevin Horan, D-Grenada, said he would like to see a review of the cases in this state that have relied on shaken baby syndrome. At least 11 convictions have taken place since 2000.

Horan, a former prosecutor who handled the appeal of a man convicted in a shaken baby case, said, "Most of the shaken baby cases are legitimate. They're not really shaken baby, but blunt-force trauma."

District Attorney Willie Dewayne Richardson of Greenville, immediate past president of the Mississippi Prosecutors Association, said prosecutors should be willing to re-examine such cases. "Often science changes, and as it does we need to re-evaluate cases moving forward," he said.

As for Guthkelch, the pioneer of the shaken baby syndrome, he now has grave doubts about the way his theory is being used.

He told the Medill Justice Center that he now regrets writing his 1971 paper "because people are in jail on the basis of what they claim is my paper, when in fact it is nothing like it."

At the request of The Clarion-Ledger, New York pathologist Dr. Michael Baden read the autopsy report in the 2002 death of Chloe Madison Britt and examined other evidence in the case.
"There is no autopsy or scientific evidence to support a diagnosis that Chloe died of shaken baby syndrome," Baden said.
"Chloe had no neck injuries, chest injuries, spine or rib fractures that further research has shown can be produced by the abusive shaking of a baby," he said in a sworn statement.

Havard's description of accidentally dropping the baby is "entirely consistent" with the injuries found, Baden said.

In an interview last week with The Clarion-Ledger, Hayne, who concluded in his original autopsy that she died of shaken baby syndrome, acknowledged there is "growing evidence" such a diagnosis "is probably not correct."

Studies show shaking isn't able to generate enough force to cause these kinds of injuries to a child, he said.

He mentioned a 1979 study measuring the falls of children. "You can generate tremendous G forces in a
short distance when you hit a very hard surface," he said.
In 2001, Minnesota pathologist Dr. John Plunkett conducted a groundbreaking study, examining Consumer Product Safety Commission reports involving falls from playground equipment. He concluded short-distance falls are capable of producing the triad of symptoms identified as shaken baby syndrome.
"It's clear that low velocity, even a 2- or 3-foot fall can cause serious and fatal brain injury," he told The Clarion-Ledger. "If people had paid attention to the science, it would not have been a mystery."

He also discovered that children could sometimes continue to act normal after falls, developing symptoms days later.

He called comparing the shaking of a child to falling from a three-story building or high-speed car crash "scientifically irresponsible."

Harper, who prosecuted Havard, said authorities studied the bathroom and concluded it was impossible for the injuries to have taken place as Havard described.

The Clarion-Ledger has examined the crime scene photographs taken in the case. None shows the bathroom.

Dr. Scott Benton, medical director of the Children's Justice Center and chief of the division of forensic medicine at the University of Mississippi Medical Center, said they see about 60 abusive head trauma cases of infants each year.

He questioned how short-distance falls can cause such injuries and said studies bear that out.
Each case must be examined on a case-by-case basis, and figuring out what happened can be difficult, he said. "If you get it wrong, an innocent person can go to prison - or an innocent child can go back to the same environment or other innocent children can go into the same environment."

Havard is sitting on Mississippi's death row for a crime the state's pathologist believes never took place.
Sexual assault was the underlying felony charge against Havard that enabled authorities to pursue the death penalty against him.
"I didn't think there was a sexual assault," Hayne said of his 2002 autopsy of Chloe. "I didn't see any evidence of sexual assault."

During Havard's capital murder trial, doctors, nurses, the sheriff and others told jurors about tears, rips, lacerations and bleeding they saw in the child's anal area.
"Maybe they were looking at folds and thought they were tears," Hayne said. "We were very careful, and we also took sections."

He examined those sections under a microscope.
His conclusion? They were no tears, rips or similar injuries to the child's rectum, he said. "I would think that would be a definitive evaluation."

When Chloe was brought into the emergency room of Natchez Community Hospital, physicians were focused on saving her life, Hayne said.

At trial, doctors and nurses each described the dilation of the child's anus.
Hayne said it would be wrong to assume such dilation means sexual assault, saying "that can happen with a child passing a harder stool."

A 1996 study found anal dilation was common among children who died, especially those who suffered brain damage.

Hayne said anal dilation could also take place in patients without significant brain function. One doctor testified Chloe was brain dead before they discovered the dilation.

The pathologist said he informed prosecutors he couldn't say a sexual assault took place.
The district attorney acknowledges Hayne was "probably the weakest (prosecution) witness" on sexual assault but that doctors, nurses and law enforcement verified that sexual abuse had taken place.

Harper said he is convinced abuse took place.
Aside from Hayne, the judge never qualified any witnesses to testify as experts in any area, including sexual assault. Under court rules, fact witnesses are barred from sharing their opinions and conclusions - only experts can do that.

At trial, prosecutors asked Hayne about the small anal bruise, which he described as "consistent with penetration of the rectum with an object."

In a 2009 statement, he told Havard's lawyers the bruise could "have a variety of causes and is not sufficient in and of itself to determine that a sexual assault occurred."

He told The Clarion-Ledger that "you've got to be real careful" with a claim of sexual assault.
The district attorney remains convinced of Havard's guilt. "I feel pretty confident," he said.
He recalled a deputy saying he had "heard of vaginal tears, but l've never seen one until now."
In his autopsy report, Hayne found no vaginal tears or anal tears.

Jurors, however, never saw his report.
Havard is seeking a new trial, citing scientific studies and new evidence.
"Jeffrey's death sentence is built on the twin pillars of sexual abuse and Shaken Baby Syndrome," said defense lawyer Graham Carner of Jackson, part of a team representing Havard on appeal. "Both of those pillars have crumbled under the weight of objective science and undisputed facts."

A competent investigation of medical evidence would have revealed the truth about what happened to

6-month-old Chloe Britt, he said. "Her death was a terrible accident, not murder. The tragedy of her death has been compounded by Jeffrey's unfair conviction and death sentence."

The Clarion-Ledger interviewed several jurors in the case, who described the evidence against Havard as overwhelming.

Jurors said they agreed they didn't want him walking the streets again. One juror called him a "monster" that deserved to die.

Havard told The Clarion-Ledger that he understands why the jury thought of him as a monster.
"With what they saw and what was put in front of them, I would have convicted me," he said. "They had nothing else to go on."

He hopes he can have a day in court, not just for his sake, but also for the sake of Chloe's family, the public and the jury.
"I'd like to see the truth come out," he said. "I want nothing more than to clear my name. It would mean the world for them to know that she didn't suffer like they've been told."

To contact Jerry Mitchell, call (601) 961-7064 or follow @jmitchellnews on Twitter.

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF MISSISSIPPI

WESTERN DIVISION

JEFFREY HAVARD
PETITIONER
VS.
Civil Action No. 5:08cv275KS
CHRISTOPHER EPPS, Commissioner, Mississippi
Department of Corrections, and
JIM HOOD, Attorney General of the State of Mississippi
RESPONDENTS

## AFFIDAVIT OF DR. STEVEN T. HAYNE

## STATE OF MISSISSIPPI

## COUNTY OF HINDS

I, the undersigned, Dr. Steven T. Hayne, being over the age of twenty-one (21) years, and competent to testify to the matters set forth herein, do hereby state the following:
I. I am a physician practicing in the fields of anatomic, clinical, and forensic pathology. I graduated from medical school at Brown University and did my pathology training at Letterman Army Medical Center at the Presidio at San Francisco, California. I was affiliated with the Medical Examiner's Office with the Mississippi Department of Public Safety for many years.
II. On February 22, 2002, I performed an autopsy on Chloe Britt. Following that autopsy, I prepared a Final Report of Autopsy.
III. In December of 2002, I testified at the trial of Jeffrey Havard in the Circuit Court of Adams County, Mississippi. Mr. Havard was charged with capital murder in the death of Chloe Britt.
IV. I recently reviewed the Final Report of Autopsy, my trial testimony in State $v$. Havard, and other documents related to the Havard case.
V. I found no definitive evidence of sexual abuse based upon my findings. A finding of sexual assault was not conclusively demonstrated.
VI. At trial, I testified that the cause of death of Chloe Britt was consistent with Shaken Baby Syndrome. 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. The current state of the art would classify those injuries as shaken baby syndrome with impact or blunt force trauma.
VII. These statements are made with a reasonable degree of medical certainty.
VIII. I am willing to be deposed or testify to the Court regarding my autopsy of Chloe Britt and related opinions.

Further, affiant sayeth not.
This the 22 day of JULy 2013.


## STATE OF MISSISSIPPI

## COUNTY OF HINDS

PERSONALLY APPEARED BEFORE ME, the undersigned authority, in and for aforesaid county and state, on this the $\partial \partial_{N D}$ day of $\qquad$ July , 2013, within my jurisdiction, the within named, Dr. Steven T. Hayne, who acknowledged to me that he executed the above and foregoing instrument for the purposes therein stated.


MY COMMISSION EXPIRES:
IAN 192014


# IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF MISSISSIPPI WESTERN DIVISION 

JEFFREY HAVARD

PETITIONER

## VS.

Civil Action No. 5:08cv275KS

CHRISTOPHER EPPS, Commissioner, Mississippi<br>Department of Corrections, and<br>JM HOOD, Attorney General of the State of Mississippi<br>RESPONDENTS

## DECLARATION OF DR. STEVEN T. HAYNE

Pursuant to 28 U.S.C. § 1746, I, Dr. Steven T. Hayne, state as follows:

1. I am a physician practicing in the fields of anatomic, clinical, and forensic pathology. I graduated from medical school at Brown University and did my pathology training at Letterman Army Medical Center at the Presidio at San Francisco, California. I was affiliated with the Medical Examiner's Office with the Mississippi Department of Public Safety for many years.
2. On February 22, 2002, I performed an autopsy on Chloe Britt. Following that autopsy, I prepared a Final Report of Autopsy.
3. In December of 2002, I testified at the trial of Jeffrey Havard in the Circuit Court of Adams County, Mississippi. Mr. Havard was charged with capital murder in the death of Chloe Britt.
4. I recently reviewed the Final Report of Autopsy, my trial testimony in State $v$. Havard, and the report of the Mississippi Crime Laboratory regarding the death of Chloe Britt.
5. The Final Report of Autopsy can neither exclude nor include that a sexual assault occurred, and the origin of the anal contusion and dilation would have to be interpreted in light of other information.
6. The Final Report of Autopsy documents the presence of a one centimeter contusion on the anus of Chloe Britt. This contusion could have a variety of causes, and is not sufficient in and of itself to determine that a sexual assault occurred. The Final Report of Autopsy also notes that Chloe Britt had a torn frenulum. This injury has numerous potential causes. Whether this injury was the result of an iatrogenic injury or an assault cannot be determined with certainty.
7. During the autopsy of Chloe Britt, I found no tears of her rectum, anus, anal sphincter, or perineum.
8. The cause of death of Chloe Britt was not related to the one centimeter anal contusion or injury to her frenulum as noted in the Final Report of Autopsy. There is no evidence that the death of Chloe Britt was caused by any sexual act.
9. Dilated anal sphincters may be seen on persons who have died, as well as on a person prior to death without significant brain function. My experience as well as the medical literature recognize that a dilated anal sphincter is not, on its own, evidence of anal sexual abuse, but must be supported by other evidence.
10. Based upon the autopsy evidence available regarding the death of Chloe Britt, I cannot include or exclude to a reasonable degree of medical certainty that she was sexually assaulted. The presence or absence of sexual assault would require additional evidence above and beyond the autopsy findings.
11. I am willing to be deposed regarding my autopsy of Chloe Britt and related

## opinions.

I declare under penalty of perjury that the foregoing is true and correct.
This the 5 day of March, 2009.


