

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY

Court of Common Pleas

James C Williams, Jr , Circuit Court Judge

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SC Court of Appeals

Case No 08- CP-38-826

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

INITIAL BRIEF OF APPELLANTS

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STATEMENT OF ISSUES ON APPEAL

1 Did the Circuit Court abuse its discretion in excluding the opinions of the three software experts on grounds that the opinions failed to meet Rule 702's requirement of reliability?

2 Did the Circuit Court abuse its discretion in excluding the post-deposition affidavits of software experts Daugherty and Lively under Cothran v Brown, 357 S C 210, 592 S E 2d 629 (2004)?

3 Did the Circuit Court abuse its discretion in excluding the expert opinion of medical expert Wilkins under Rule 702 on grounds of qualification and reliability?

4 Given that the opinions of the experts should have been considered in deciding the summary judgment motion, did the Circuit Court err in granting the motion for summary judgment?

5 Assuming arguendo that the software experts' specific defect opinions were properly excluded, did the Circuit Court err in granting summary judgment because the circumstantial evidence alone presented was sufficient to establish defect and causation for summary judgment purposes?

STATEMENT OF THE CASE

On April 7, 2006, Kareem J Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Iyanna Graves, filed a wrongful death injury action against the Defendant, CAS Medical Systems, Inc , in the Court of Common Pleas for Orangeburg County, South Carolina In this action, the Plaintiffs alleged that the death of their infant child, India Iyanna Graves, had been proximately

caused by the alarm failure of a CAS AMI Plus Apnea/Heart Rate Monitor designed, manufactured, and sold by the Defendant. The Defendant filed an Answer denying liability.

Discovery commenced and the Plaintiffs designated three software experts who opined as to the defects and causation with respect to the monitor, and a medical expert who opined that India would have survived had the alarm timely sounded. Following the deposition of the experts, the Defendant on March 6, 2009, filed a motion for summary judgment on all claims. The Circuit Court declined to rule on the motion at this time and ordered the Plaintiffs to respond fully to CAS's outstanding discovery, including discovery regarding the experts' opinions.

The Plaintiffs thereafter provided this discovery and also served the Defendant with affidavits from software experts Dr. Walter C. Daugherty and Dr. William R. Lively that supplemented and clarified their deposition testimony. On April 28, 2009, CAS filed a motion to strike the affidavits and to exclude the deposition testimony under Rule 702, SCRE. The Plaintiffs filed oppositions to these motions and additional memoranda opposing the summary judgment motion.

By Order filed April 8, 2010, the Circuit Court granted the Defendant's motion to exclude the affidavits. The Circuit Court also excluded the experts' opinions under Rule 702 and granted the summary judgment motion. The Circuit Court on April 23, 2010, denied the Plaintiffs' motion to alter or amend these orders filed under Rule 59, SCRCP.

The Plaintiff timely filed a Notice of Appeal from the orders excluding the experts' deposition testimony and the affidavits, the order granting summary judgment, and the order denying the Rule 59 motion.

STATEMENT OF FACTS

A The Product

The CAS AMI Plus Apnea/Heart Rate Monitor is a medical device designed to monitor the breathing and heart rates of infants. A foam belt is wrapped around the infant's chest and secured with a Velcro strip. Electrodes that monitor chest movement and heart rate are attached to the belt, the belt is attached to a patient cable running to the monitor. The electrodes sense the expansion and contraction of the infant's chest. When the infant stops breathing and no movement is detected, an alarm is suppose to sound. If the electrodes sense the heart beat is outside the set alarm limits, an alarm is also suppose to sound. The alarm continues to sound until the problem is corrected, the reset button is pushed, or the power turned off. (Caregiver s Manual)(Pls Initial Request for Production 6)

In addition to these audio signals, there are lights, *inter alia*, for power and for heart and breathing function on the front of the monitor. When the power is on and heart and breathing are outside alarm parameters, the lights are green. When breathing or heart activity falls within the alarm parameters, the lights turn red. Id

When the electrodes detect a breathing or heart event within the alarm parameters, the event is logged internally in the monitor. Further, the software sends a signal to the audible alarm to activate. The software also sends a signal to a microphone near the internal alarm to listen for the audible alarm. If the microphone reports back to the software that the alarm is not heard, a back-up alarm is activated. The monitor's log records any failure of the internal or back-up alarm to sound. (Affidavit of Frank C Painter)

The alarm is quite loud – 85 decibels (April 17, 2009 Affidavit of William Lively) The alarm is intended to awaken both the baby and the parents, or alert the parents if they are not asleep The baby either begins breathing normally once awake or, if not, the parents are instructed to stimulate the baby The stimulation usually revives the baby, if not the parents are instructed to obtain prompt medical attention for the baby

The CAS AMI Plus Apnea/Heart Rate Monitor for many years has had problems with its audible alarm system malfunctioning Approximately 50 complaints that the alarm failed to sound when the system detected a life-threatening event have been made by users to CAS and/or to the Federal Drug Administration (Frank R Painter Dep Ex 17) In response to 2 or 3 of these complaints, CAS itself could not determine the cause of the alarm failure and installed new motherboards in the system (Walter C Daugherty Dep at 39, lines 19-25, 40, lines 1-6)

Plaintiffs' software expert Frank R Painter carefully examined each of these complaints and testified that they are "very, very similar in nature to the ones we have" (Frank R Painter Dep at 66, lines 11-13) In all 50 of the reports, the monitor had the LED light lit, there was an alarm condition, and no audible alarm sounded (Frank R Painter Dep at 72, lines 15-20)

B The short life and death of India Graves

India Graves was born prematurely along with triplet sisters Paris and Asia to Tara Graves on December 30 2003 Due to the infants' medical condition, doctors at the hospital ordered that all three babies be monitored with sleep apnea monitors to monitor their breathing and heart rate CAS AMI Plus Apnea/Heart Rate Monitors were delivered

to the hospital for all three babies and attached to the children during their stay at the hospital. Hospital personnel also instructed Tara and Kareem Graves as to the proper use of the monitors once the babies had been released from the hospital. (Amended Complaint)

On February 17, 2004, the hospital released the babies to their parents' care with the AMI Plus monitors. India and her sisters returned to the Graves' Orangeburg, South Carolina home. From February 17 to April 11, 2004, Tara or Kareem Graves properly attached the monitor to India each night before they went to bed. (Amended Complaint)

Unknown to the parents, during this period the audible front alarm on the monitor failed to sound 11 times and the rear alarm failed to sound 4 times. (Walter C. Daugherty Dep. at 57, lines 4-6). As Dr. Daugherty explained in this deposition, the CAS monitor itself "is reporting that it is defective." (Walter C. Daugherty Dep. at 50, line 57).¹

On the night of India's death, India and her two sisters were sleeping in the same upstairs bedroom as Tara and Kareem. Each girl slept in a bassinet "right next to my bed." (Tara P. Graves Dep. at 74, lines 3-5)

Sometime between 1 a.m. and 2 a.m., Tara was ironing a shirt in the bedroom. India was propped up on a pillow on the bed. The electrodes were already attached to her and by the patient cable to the monitor. (Tara P. Graves Dep. at 84, lines 101-02). Kareem had already fallen asleep in the bed. (Tara P. Graves Dep. at 81, lines 1-15). Tara noticed India had fallen asleep. Tara "picked her up and laid her in the bassinet and set

¹ These failures were discovered after India's death when the Plaintiffs' software experts examined the computer log that recorded these alarm failures.

the monitor up under the bottom [of the bassinet]’ (Tara P Graves Dep at 81, lines 5-8)

Tara then went to bed about 2 00 a m (Tara P Graves Dep at 85, lines 2-5)
 Shortly after 2 00 a m , according to the printouts from the CAS Monitor, India began have breathing difficulties. For the next hours, India had episodes of hypoxia, bradycardia, and not breathing. Finally, she went into full cardiac arrest (Dr Donna A Wilkins Dep at 71, lines 18-20)(“[t]his was an hour of hypoxia, bradycardia, not breathing, and, finally, cardiac arrest because it went on so long”) By 2 54 a m , India had no heart rate and had passed the resuscitation point (Dr Donna A Wilkins Dep at 72, lines 2-7)

The CAS Monitor properly recorded all of these episodes on the event log. The alarm lights also turned red as each episode occurred. Tragically, however, the audible alarm failed to sound (Tara P Graves Dep at 100, lines 19-23). Tara and Kareem accordingly continued to sleep through not only the first event but also past the 2 54 a m event when India’s heart stopped beating.

At some point after 2 54 a m , Tara was awakened by a bad dream and jumped out of the bed. She went into another bedroom and checked on her sister and her son. Then she returned to her bedroom and checked Paris and Asia. Both girls “jumped” when she touched them. When Tara nudged India, however, India did not move. Tara turned the lights on and realized India was not breathing. She screamed for her husband and told him to call 911 because India was not breathing. She started CPR on India (Tara P Graves Dep at 85, lines 7-25). See also (Kareem J Graves Dep at 48, lines 4-20)

Although India had completely stopped breathing and her heart had stopped, Tara testified that she did not hear any alarms going off from the time India went to bed to her death (Tara P Graves Dep at 100, lines 19-23) Nor did she hear any alarm sound on the other monitors (Tara P Graves Dep at 110, lines 24-25) The evidence is undisputed, however, that the monitor was otherwise properly operational Tara testified that, as she tried to revive India, all of the lights on the monitor were on She could not recall if they were flashing but “I know they were all lit up in red ” (Tara P Graves Dep at 88, lines 8-9) All the lights were red, “except for the green power” light (Tara P Graves Dep at 88, lines 10-11)

Tara knew that the audible alarm had worked on past occasions (Tara P Graves Dep at 158, lines 17-19) The alarm had awakened her in the middle of the night on these occasions (Tara P Graves Dep at 159, lines 22-24)

Kareem likewise remembered that “all the lights were on ” (Kareem J Graves Dep at 50, lines 21-22) He was adamant, however, that “I didn t hear any alarms ’ at all that night (Kareem J Graves Dep at 60, lines 16-23) He further explained that ‘you can’t sleep through the alarm I mean even the chirping you can t sleep through that ’ (Kareem J Graves Dep at 69, lines 16, 21) He testified that he is not a heavy sleeper (Kareem J Graves Dep at 69, line 25)

Tara’s sister, April Simmons, and April s son were also sleeping in an adjoining bedroom that night Although April on past occasions had heard the monitor’s alarm go off regardless of whether she was upstairs or downstairs, she did not hear any alarm from the monitor that night (April Simmons Dep at 18, lines 18, lines 6-8, 31, lines 22-24, 32, lines 3-12)

Neither Kareem nor Tara turned the monitor off while waiting for the EMS (Tara P Graves Dep at 90, lines 8-16) Orangeburg County EMS paramedic Anita R Kelly arrived at the scene at 4 01 a m Although the monitor lights remained red and the monitor should have continued to alarm, Ms Kelly likewise did not hear any alarm sounding during the time she was in the house (Anita R Kelly Dep 96, lines 19-24) She determined that India had no heart rate Ms Kelly wrote on her incident report that “alarm showing loosely, negative alarm’ (Anita R Kelly Dep at 47, lines 18) In her deposition, Ms Kelly testified that she had no memory of whether she obtained this information by actually looking at the monitor, or whether the mother told her the alarm had failed to sound After refreshing her memory by reviewing her report, she testified “yes, I did look at the monitor ” (Anita R Kelly Dep at 101, lines 21-22) She explained that she would have used quotation marks if the mother had told her the alarm had not sounded and that the absence of quotation marks meant she had actually looked at the monitor herself (Anita R Kelly Dep at 92, lines 7-13)

Ms Kelly took India’s body out to the EMS truck (Tara P Graves Dep at 91, lines 7-10) The coroner arrived at the truck and pronounced the child dead (Tara P Graves Dep at 97, lines 18-20) An autopsy disclosed that the baby had died of sudden infant death syndrome (Tara P Graves Dep at 96, lines 17-20)

C The Plaintiffs Evidence of Defect and Causation

The Plaintiffs subsequently filed the instant wrongful death action against CAS to recover for India s death The Amended Complaint asserted claims for strict liability, breach of warranty, and negligence (Amended Complaint)

The Plaintiffs' software experts, Dr. Walter C. Daugherty, a computer science instructor, and Dr. William A. Lively, a computer science professor, and Frank R. Painter, a biomedical engineer, examined the CAS Monitor and the software that operates the alarm system. They read the depositions of Tara and Kareem wherein the parents described the events of the night of April 11 and stated that the alarm had failed to sound. They also reviewed the many other complaints made by alarm users that the alarm had failed to sound. As previously noted, the experts also discovered that the printout had recorded fifteen incidents where the alarm had failed to sound when hooked up to India prior to her death. The experts also tested an exemplar monitor. Based on this review and their extensive knowledge of software code, the experts determined that the *design* of the software used in the CAS monitor was defective, and that within this design there were defective lines of code that caused the failure of the alarm to sound during the night of India's death. In their depositions, the experts opined that the software was defective and unreasonably dangerous for a life-critical system such as the CAS monitor, and the defective software was a proximate cause of the alarm failing to sound on the night of India's so easily preventable death.

In his deposition, Dr. Daugherty testified that "the defect is the overall design" (Daugherty Dep. at 33, lines 19). In this regard,

The code is poorly designed. The implementation is inadequate for proper testability. The code was not properly maintained and, consequently, I consider the software to be defective in design and inappropriate to be relied on in a life critical system.

(Daugherty Dep. at 86, lines 18-23). He explained that the poor testability was the result of the code having an incredible 34 billion paths through the code for just one of the 800 modules. (Daugherty Dep. at 75, lines 1-8). More specifically, he explained that the

paths of execution in the code were subject to being interrupted by external events. Thus, if the electrodes detected a breathing rate or heart rate on the infant that should trigger the alarm sounding, the alarm sound command would first test for a low battery and then would conduct other tests before it reached the end of the path where the alarm sound command was located. But, if an “external interrupt event” happened during this sequence, the command might not complete the path and the alarm would not sound.

The first test is to test for the very low battery condition. If that’s false, that is, it’s not in a very low battery condition, then it goes to the next test to see if the alarm failed flag has been set. But if interrupts are on, then it’s possible that another external event could interrupt the processing at this point so that it could never complete the path and end up to the point right here that would turn the alarm on.

So if the environment in which it’s operating had interrupts on and an external interrupt occurred after it entered this routine but before it got to the alarm on point, then the alarm would fail to sound.

(Daughterity Dep. at 36, lines 15-25, 37, lines 1-4) With respect to the type of external interrupt events that could cause the alarm not to sound, Dr. Daughterity explained as follows:

Q What type of external interrupt are you referring to?

A This is basically a device that has inverted flow of control, so the program itself does not determine the order in which the modules are executed, that’s determined by the external inputs, such as the power on/off button, the reset button, a signal from the leads, that would be current that was passed through the subject’s body, there’s a clock tick, when the clock ticks, there’s an internal Watchdog timer, and there’s an external Watchdog timer.

So all of those things are outside the program’s control, and the program has no way of knowing in what sequence or order any of those external events will occur because they are asynchronous, or the length of time between them.

(Daughterity Dep. at 37, lines 7-21) See also (Frank R. Painter Dep. at 55-57)(discussing the type of external interrupt events that could cause the alarm not to sound)

He further testified that the defective design more likely than not proximately caused the alarm not to sound

Q What is the defect in this programming?

A Well, we discussed that in several of my answers, that the defect is an overall defect of poor quality design, poor testability, and poor maintenance. The term "bug" is usually used to refer to a specific line or lines of code which are incorrect and have to be replaced by the correct lines of codes.

Q Did that defect, as you describe it, cause the monitor alarm not to sound?

MR DuBose Object to the form.

A Most likely. As I said --

Q (BY MR WINSLOW) More likely than not?

A More likely than the other possible causes that I considered.

(Daughterly Dep at 167, lines 13-25, 168, lines 1-3)(emphasis added)

Dr Lively concurred in this opinion. All three experts agreed that this defect rendered the monitor unreasonably dangerous for a life critical system. (Daughterly Dep at 163, lines 1-2), (Frank R. Painter Dep at 117-119, 175, lines 2-13), (William M Lively Dep at 106, lines 1-23)

Dr Donna Wilkins, the Plaintiffs' medical expert, testified in her deposition that, if the alarm had sounded, "the baby would be alive today" because the parents would have responded and stimulated the baby. (Wilkins Dep at 70, lines 2-13). She further assigned the percentage likelihood that this would have occurred at "more than 51%" (Wilkins Dep at 129, lines 23-25).

In his deposition, Mr. Daughterly testified that CAS should have used an alternative design – structured code – that was available at the date of manufacture of the product and would have eliminated the defect. (Daughterly Dep at 33, line 25, 34, lines 1-10). The structured code has a specific path and destination that has no interruption.

paths that cross over the path. In his affidavit, Mr. Daugherty gave precise testimony as to the type of code that should have been used- “other adequate flow of control mechanism available such as if, if else, for while, do, and switch, that would have allowed the program to function in an organized linear manner. The proper use of these statements would have avoided creating spaghetti code and would have prevented intermittent failures.” (April 17, 2009 Affidavit of Walter Daugherty). Dr. Lively testified that such code could be written at a cost of \$300,000 to \$400,000. (William R. Lively Dep. at 150, lines 16-23)

The software experts also submitted affidavits that supplemented their deposition testimony. Subsequent to his deposition, Dr. Daugherty studied the log reports and goto statements. He submitted an affidavit in which he explained that log reports more likely than not were unreliable because of the use of spaghetti code and goto statements. Further in light of the eyewitness testimony that the alarm did not function, “it is certain that the logs are not reliable.” He also concluded that the excessive goto statements in the code contributed to the improper structure and “allowed the software to execute in unpredictable and uncontrollable ways.” (April 17, 2009 Affidavit of Walter Daugherty)

Dr. Lively’s March 11, 2009 affidavit reiterated the deposition testimony that “the unorganized structure of the code causes lines of code to not follow their intended path and reach their required destination.” (March 11, 2009 Affidavit of William Lively). The affidavit also reiterated that the faulty software design caused the alarm problem. He squarely opined again that “Spaghetti Code is a direct cause for the alarm to malfunction.” (March 11, 2009 Affidavit of William Lively)

The Circuit Court, however, granted CAS's motion to exclude the deposition testimony of all four experts under Rule 702, SCRCP. In addition, the Circuit Court granted CAS's motion to exclude the post-deposition affidavits of Dr. Daugherty and Dr. Lively under Cothran v. Brown, 357 S.C. 210, 592 S.E.2d 629 (2004). With the opinions of these experts thus excluded, the Circuit Court concluded that the Plaintiffs had no admissible evidence to reach the jury on defect, causation, and alternative design. The Circuit Court therefore granted summary judgment for the Defendant.

In the Plaintiffs' Rule 59, SCRCP motion, the Plaintiffs pointed out that the Circuit Court had failed to address their argument that the Plaintiffs had presented sufficient *cumstantial* evidence with respect to their statutory strict liability claim to reach the jury on the existence of a defect and causation. The Circuit Court remedied this omission in its Order denying the motion for reconsideration by ruling that a plaintiff cannot prove a product defect by circumstantial evidence in South Carolina. (Order Denying Rule 59 Motion)

ARGUMENT

The Circuit Court's decision to grant summary judgment for CAS on 'no defect' grounds almost defies belief. Whatever the merits of the experts' opinions as to precisely what was wrong with the software, the Circuit Court was presented with the sworn testimony of Tara Graves, Kareem Graves, Anita Kelly, and April Simons that the alarm did not sound after the Graves' awoke, *even though the monitor was still attached to India and India had no heart rate and had stopped breathing*. In other words, the alarm not only failed to sound during

India's final hour while the adults were asleep but after India's death while the Graves family and the paramedic were dealing with this tragic incident. On summary judgment, of course, the Circuit Court was *required* to accept this sworn testimony as true. Given this direct eyewitness testimony of the monitor failing to perform the very function it was designed to perform, it is obviously nonsensical to conclude, as did the Circuit Court, that no evidence of defect was presented because the experts could not find the specific lines of code responsible for the malfunction.

In granting summary judgment for the Defendant on "no defect" grounds, the Court made two distinct errors that requires that the summary judgment be reversed. First, the Court improperly excluded the opinions of the Plaintiffs' experts both as stated in their depositions and in their subsequent affidavits. Had the experts' opinions been admitted, their testimony as to defect, causation, and alternative design would have precluded summary judgment. Second, even without the experts specific defect opinions, South Carolina law permits any fact at issue to be proven by circumstantial evidence. The circumstantial evidence presented alone was sufficient to establish defect and causation and to entitle the Plaintiffs to reach the jury.

I THE SUMMARY JUDGMENT MUST BE REVERSED BECAUSE THE
CIRCUIT COURT ABUSED ITS DISCRETION IN EXCLUDING THE
TESTIMONY OF THE PLAINTIFFS' EXPERT WITNESSES

A The opinions offered by the Plaintiffs' experts meet all of the requirements of Rule 702

In South Carolina, trial courts are obligated to review all expert testimony to ensure that it passes the threshold foundation requirements of qualification, reliability and assistance to the trier of fact

We hold that the trial courts of this state have a gatekeeping role with respect to all evidence sought to be admitted under Rule 702, whether the evidence is scientific or nonscientific. In the discharge of its gatekeeping role, a trial court must assess the threshold foundational requirements of qualifications and reliability and further find that the proposed evidence will assist the trier of fact. The familiar evidentiary mantra that a challenge to evidence goes to "weight, not admissibility" may be invoked only after the trial court has vetted the matters of qualifications and reliability and admitted the evidence.

State v. White, 382 S.C. 265, 274, 676 S.E.2d 684 (2009)

Although all expert testimony – both scientific and nonscientific – thus must pass the reliability requirements of Rule 702 in order to be admissible, the factors used to assess reliability differ *substantially* depending on whether the expert testimony is scientific, or nonscientific. If the expert testimony is *scientific*, trial courts under State v. Council are required to consider the following factors to determine if the evidence passes threshold admissibility requirements:

In considering the admissibility of scientific evidence under the Jones standard, the Court looks at several factors, including (1) the publications and peer review of the technique, (2) prior application of the method to the type of evidence involved in the case, (3) the quality control procedures used to ensure reliability, and (4) the consistency of the method with recognized scientific laws and procedures.

State v. Council, 335 S.C. 1, 19-21, 515 S.E.2d 508 (1999)

Conversely, when the proffered expert testimony is *not* scientific, the State v. Council/State v. Jones factors do not apply as they serve no useful analytical purpose.

State v. Council, 335 S.C. 1, 515 S.E.2d 508 (1999) is often cited for the gatekeeping role of the trial court with regard to expert testimony under

Rule 702, as well as the standard reliability factors for scientific evidence. The foundational reliability requirement for expert testimony does not lend itself to a one-size-fits-all approach, for the Council factors for scientific evidence serve no useful analytical purpose when evaluating nonscientific expert testimony.

State v White, 382 S C 265, 676 S E 2d 684 (2009). In State v White, the Court

explained that it would not set forth similar factors for nonscientific evidence but would

leave that task up to the trial court.

We do not pretend to know the myriad of Rule 702 qualification and reliability challenges that could arise with respect to nonscientific expert evidence. Consequently, we offer no formulaic approach that will apply in the generality of cases. Yet the trial court in the discharge of its gatekeeping role in determining admissibility must initially answer the always present threshold questions of qualification and reliability.

382 S C at 276. For example, in State v White, the Court ruled that dog tracking expert

evidence passed the gatekeeping test based on the following foundation rather than the

Jones/Council factors:

By extrapolating from our case law and other authorities, we conclude a sufficient foundation for the admission of dog tracking evidence is established if (1) the evidence shows the dog handler satisfies the qualifications of an expert under Rule 702, (2) the evidence shows the dog is of a breed characterized by an acute power of scent, (3) the dog has been trained to follow a trail by scent, (4) by experience the dog is found to be reliable, (5) the dog was placed on the trail where the suspect was known to have been within a reasonable time, and (6) the trail was not otherwise contaminated.

382 S C at 265. Similarly, in Jamison v Morris, 385 S C 215, 684 S E 2d 168 (2009),

the Court held that an expert's alcohol impairment testimony based on a SLED blood test

result failed the reliability test not because of the Jones/Council factors but because the

expert could not prove a chain of custody for the blood test.

It must be remembered that *exclusion under Rule 702 is the exception rather than the rule*. Normally, questions about the reliability of expert testimony should be

challenged by vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof. Addressing the similar federal standard, the Fifth Circuit accordingly has explained

However, in determining the admissibility of expert testimony, the district court should approach its task "with proper deference to the jury's role as the arbiter of disputes between conflicting opinions. As a general rule, questions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration." *Viterbo v. Dow Chemical Co.*, 826 F.2d 240, 422 (5th Cir. 1987).

As the Court in *Daubert* makes clear, however, the trial court's role as gatekeeper is not intended to serve as a replacement for the adversary system. "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."

United States v. 14 38 Acres of Land, 80 F.3d 1074, 1078 (5th Cir. 1996)

With the gatekeeping requirements of Rule 702 thus properly understood, the Circuit Court clearly abused its discretion in excluding the opinions of the Plaintiffs' experts. Most obviously, the Circuit Court inexplicably concluded with no support whatsoever that the opinions of the experts "fit within the scientific category." (Order at 6). The court then proceeded to vet their testimony under the factors used to vet *scientific* expert testimony. Finding that the opinions had not been published, had not been subjected to peer review, had not been tested, and had no known rate of error, the Court excluded the opinions.

The Circuit Court's mischaracterization of the expert testimony alone requires reversal. Neither Daugherty, Lively, Painter nor Wilkins offered scientific testimony. The software experts simply offered opinions based on well-

established computer science principles and then reasoned to the best inference

Dr. Wilkins gave routine medical expert testimony

While the Circuit Court purported to rule that exclusion would be mandated even if the testimony was considered merely technical, the Circuit Court did not undertake a separate inquiry into the factors that would bear on the reliability of this obviously nonscientific testimony. The only additional reliability factor the court considered was the defect experts' methodology of accepting as true *the eyewitness testimony* that the monitor malfunctioned on the night of India's death and then excluding all causes of the malfunction but a product defect. The Circuit Court in effect ruled that this methodology was not reliable. But this type of methodology, known as "differential diagnosis" in the medical context, and "reasoning to the best inference" in non-medical contexts, is a well-accepted methodology for diagnosing medical problems, Westberry v. Gislaved Gummi AB, 178 F.3d 257, 262 (4th Cir. 1999) (holding that differential diagnosis is a reliable technique "of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated"), Clausen v. M/V New Carissa, 339 F.3d 1049, 1058-59 (9th Cir. 2003) (recognizing differential diagnosis as a reliable method), Zuchowicz v. United States, 140 F.3d 381, 387 (2d Cir. 1998) (upholding district court decision to admit differential diagnosis testimony), and for determining product defects Bitler v. A.O. Smith, 400 F.3d 1227, 1235-36 (10th Cir. 2004).

Indeed, the reliability of this methodology is underscored by the widely accepted rule that circumstantial evidence alone is sufficient to establish defect and causation in a strict liability case.

Jurisdictions which model their decisional law along Restatement lines uniformly hold that a strict liability claimant may demonstrate an unsafe

defect through direct eyewitness observation of a product malfunction, and need not adduce expert testimony to overcome a motion for summary judgment. Although it is helpful for a plaintiff to have direct evidence of the defective condition which caused the injury or expert testimony to point to that specific defect, such evidence is not essential in a strict liability case based on § 402A and direct observation of "[t]he malfunction itself is circumstantial evidence of a defective condition."

Thus, a manufacturer's own employee-expert does not necessarily trump a strict liability claimant's circumstantial non-"expert" evidence at the summary judgment stage.

[fn11] Indeed, strict liability claimants may resort to an array of circumstantial evidence. ("Such circumstantial evidence includes (1) the malfunction of the product, (2) expert testimony as to a variety of possible causes, (3) the timing of the malfunction in relation to when the plaintiff first obtained the product, (4) similar accidents involving the same product, (5) elimination of other possible causes of the accident, and (6) proof tending to establish that the accident does not occur absent a manufacturing defect")

Perez-Trujillo v. Volvo Car Corporation, 137 F.3d 50, 57 (1st Cir. 1998) ²

There are no South Carolina cases rejecting reasoning to the best inference as an accepted methodology under Rule 702 in product liability cases. In the products context, this methodology must meet the following standards:

Experts must provide objective reasons for eliminating alternative causes when employing a "differential analysis." Furthermore, the inference to the best explanation must first be in the range of possible causes; there must be some independent evidence that the cause identified is of the type that could have been the cause. But more than mere possibility, an inference to the best explanation for the cause of an accident must eliminate other possible sources as highly improbable, and must demonstrate that the cause identified is highly probable.

400 F.3d at 1237-38. The Plaintiffs' experts met each of these standards as discussed *infra*. The Circuit Court accordingly clearly erred in faulting the experts' opinions because they began their analysis with the assumption that the monitor had malfunctioned, as the eyewitness testimony established.

² The Plaintiffs have alternatively contended that they were entitled to reach the jury on the circumstantial evidence in the case even if the specific defect testimony was properly excluded.

Finally, the exclusion of the experts cannot be justified because they failed to reproduce a malfunction through testing. It must be remembered that the defective design of the code itself precluded reproductive testing – the astronomical number of paths in one module made it simply impossible to duplicate all of the possible sequences. In any event, Rule 702 does not require full reproductive testing of an expert's opinion. Indeed, testing is not necessarily required at all, particularly where as here nonscientific evidence is involved. As the Tenth Circuit explained (under the similar federal standard) “testing is not necessary in all instances to establish reliability under *Daubert*.” Bitler v. A.O. Smith, 400 F.3d 1227, 1235-36 (10th Cir. 2004). Testing is most important “[w]hen an expert proposes a theory that modifies otherwise well-established knowledge about regularly occurring phenomenon.” Thus, the court in Bitler upheld the testimony of two experts who had not conducted tests of their opinions.

Employing his experience and knowledge as a fire investigator, Boh observed the physical evidence at the scene of the accident and deduced the likely cause of the explosion. Although such a method is not susceptible to testing or peer review, it does constitute generally acceptable practice as a method for fire investigators to analyze the cause of fire accidents. Nothing in Rule 702 or *Daubert* requires more. We conclude that the trial court did not abuse its discretion in finding Boh's personal experience, training, method of observation, and deductive reasoning sufficiently reliable to constitute “scientifically valid” methodology. Thus, because testing is not necessary in all instances to establish reliability under *Daubert* and because the district court reasonably found that it was not required by the particular factual circumstances of this case, we conclude that the district court did not abuse its discretion in admitting the Bitlers' experts' testimony.

The Circuit Court thus employed the wrong criteria in evaluating the reliability of the experts' opinions. When their opinions are properly viewed as non-scientific testimony, the methodology they used –reasoning to the best inference after applying established technical rules of computer science - fully complies with Rule 702, and State v. White, 382 S. Ct. 265, 676 S. E. 2d 684 (2009).

The Circuit Court also erroneously ruled that the experts impermissibly relied on the 50 alarm failures reported to CAS and the FDA because “the substantial similarity of the complaints to the alleged failure in this case never shown” (Order at 7). In so ruling, the Circuit Court simply accepted the unsupported statement of defense counsel in the draft order prepared for the Court and ignored the actual evidence. As previously noted, Plaintiffs’ software expert Frank R. Painter carefully examined each of these complaints and testified that they are “very, very similar in nature to the ones we have” (Frank R. Painter Dep. at 66, lines 11-13). In all 50 of the reports the monitor had the LED light lit, there was an alarm condition, and no audible alarm sounded (Frank R. Painter Dep. at 72, lines 15-20). The Court can confirm this opinion by examining the actual complaints which were submitted into evidence and are a part of the record. While the Defendant claimed that a few of the alarm failures were the result of a defect in the monitor that had been repaired following a recall, the defense presented no evidence rebutting Mr. Painter’s expert opinion that the reports were “very, very similar” to the instant case. In any event, at the summary judgment stage, the evidence must be viewed in the light most favorable to the Plaintiffs. Hence, the contrary interpretation of the 50

similar incidents offered by the defense simply creates a question of fact as to substantial similarity

B The affidavits are not excludible as sham affidavits

The Circuit Court excluded the post-deposition affidavits of Dr Daugherty and Dr Lively under Cothran v Brown, 357 S C 210, 592 S E 2d 629 (2004) on grounds that the affidavits were “directly contradictory” to the opinions given by these experts in their deposition and that the other factors listed by the court justified their exclusion. The Circuit Court clearly abused its discretion in so ruling.

In Cochran, the court explained that sham affidavits – that is, affidavits that contain opinions that *contradict* prior deposition testimony – do not create a question of fact for summary judgment purposes in the following circumstances:

We find persuasive the reasoning of federal case law. Federal courts, including the Fourth Circuit, have held a court may disregard a subsequent affidavit as a “sham,” that is, as not creating an issue of fact for purposes of summary judgment, by submitting the subsequent affidavit to contradict that party’s own prior sworn statement.

In distinguishing between a sham affidavit and a correcting or clarifying affidavit, the following considerations provide guidance: (1) whether an explanation is offered for the statements that contradict prior sworn statements, (2) the importance to the litigation of the fact about which there is a contradiction, (3) whether the nonmovant had access to this fact prior to the previous sworn testimony, (4) the frequency and degree of variation between statements in the previous sworn testimony and statements made in the later affidavit concerning this fact, (5) whether the previous sworn testimony indicates the witness was confused at the time, (6) when, in relation to summary judgment, the

second affidavit is submitted

Cothran v Brown, 357 S C 210, 592 S E 2d 629 (2004) The Court need not evaluate the Cothran factors at all because any Cothran attack on the affidavits founder on the first element – there is no contradiction at all

In his deposition, Dr Daugherty stated that “the defect is the overall design ” (Daugherty Dep at 33, lines 19) Dr Daugherty testified that one particular design feature in the software – the unconditional branch instructions or ‘goto’ statements - proximately caused the alarm not to sound

Q Do you find any unconditional branch instructions in the AMI Plus code that caused the alarm not to sound, in your opinion?

A Yes, there are

(Daugherty Dep at 148, lines 12-13) He supplemented this testimony by explaining that, within the defective design, were “defective lines of code ³ that could not be located because the unstructured design of the code made it extremely difficult to locate the defective lines of code He explained that it might be possible to find these errors but that it would take six months to a year and require creation of a special software package

A Okay Mr Hastings asked me what it would take to find the line or lines of code which were incorrect and repair them And I did some thinking and analysis and gave him a response on that which was, you know, six months to a year and creation of a suite of software that would automatically test the most common paths in the code since the poor design makes testing all the paths in the code impossible, and that that procedure might be able to locate the line or lines in the code which need to be addressed If the code had been properly designed, then it would be much more possible to do that

(Daugherty Dep at 137, lines 4-15)

³ This is not to be confused with “coding errors – i e , a typo, transposed character, or misplaced character within a particular line of code Dr Daugherty has not been able to locate any coding error to-date (April 17, 2009 Affidavit of Walter Daugherty, para 3)

In his April 17, 2009 Affidavit, Dr. Daugherty explained that, after a year of study, he had located the defective lines of the code and attached these as Exhibits 2 and 3 to the Affidavit. He reiterated that he had identified the ‘structure of the software as the defect’ (April 17, 2009 Affidavit of Walter Daugherty, para. 3). He further explained that one cause of the defective structure in the software was the use of goto statements. If, as in this software, excessive numbers of goto statements are used, the resulting code is so unreliable as to be defective because it will cause the software to fail intermittently (April 17, 2009 Affidavit of Walter Daugherty, para. 9).

In his deposition, Mr. Daugherty testified that CAS should have used an alternative design – structured code – that was available at the date of manufacture of the product and would have eliminated the defect.

In a piece of software of this complexity, it’s important to use good design principles in order to produce a program which meets the specifics, is testable, and is maintainable. This approach which is evidenced by the code under discussion is one where, instead of using best industry practice of the time of structured or object oriented programming, results in the lines of flow of control of execution being a rather tangled mess, like a bowl of spaghetti, which is why it has the name “spaghetti code.”

(Daugherty Dep. at 33, line 25, 34, lines 1-10). In his affidavit, Mr. Daugherty gave precise testimony as to the type of code that should have been used – “other adequate flow of control mechanism available such as if, if else, for while, do, and switch, that would have allowed the program to function in an organized linear manner. The proper use of these statements would have avoided creating spaghetti code and would have prevented intermittent failures.” (April 17, 2009 Affidavit of Walter Daugherty, para. 10). Thus, the alternative design testimony is consistent as well – the only difference is that the affidavit gives more detail as to the alternative design.

Finally, in his deposition, Mr Daugherity testified that the defective design proximately caused the alarm not to sound

Q The lawyer used the term "bug," and that the bug caused the alarm not to sound What is the defect in this programming?

A Well, we discussed that in several of my answers, that the defect is an overall defect of poor quality design, poor testability, and poor maintenance The term "bug" is usually used to refer to a specific line or lines of code which are incorrect and have to be replaced by the correct lines of codes

Q Did that defect, as you describe it, cause the monitor alarm not to sound?

MR DuBose Object to the form

A Most likely As I said --

Q (BY MR WINSLOW) More likely than not?

A More likely than the other possible causes that I considered

(Daugherity Dep at 167, lines 13-25, 168, lines 1-3)(emphasis added) In his April 17, 2009 affidavit, he reaffirmed that the poor design of the software proximately caused the failure of the alarm to sound (April 17, 2009 Affidavit of Walter Daugherity) Causation thus is consistent in both the deposition and affidavit

The Circuit Court also abused its discretion in excluding Dr William Lively's affidavit Dr Lively squarely testified that 'the software is the problem ' (Lively Dep at 60, line 10) See also (Lively Dep at 60, line 10)(' there was an error in the monitor that part of the design'') He further explained that the goto statements should not have been used because they allow the signal to travel an erroneous pathway (Lively Dep at 144, lines 7-20) Dr Lively s March 11, 2009 affidavit makes the same statement – 'the unorganized structure of the code causes lines of code to not follow their intended path and reach their required destination ' (March 11, 2009 Affidavit of William Lively, para 12) Dr Lively's March 11, 2009 affidavit reiterates that the faulty software design caused the alarm problem He squarely opined that "Spaghetti Code is a direct cause for

the alarm to malfunction ’ (March 11, 2009 Affidavit of William Lively, para 12) Thus, the affidavits of William Lively are entirely consistent with the testimony given in his deposition on all material points The Circuit Court clearly abused its discretion in excluding the affidavit

C The Circuit Court abused its discretion in excluding Dr Wilkins’ opinions

The Circuit Court ruled that Dr Wilkins was not qualified to give an opinion on sudden infant death (SIDS) survivability because she is not “an expert on SIDS ’ SIDS, however, is simply a diagnosis of exclusion The real question is whether Dr Wilkins is qualified to give an opinion as to whether India would have survived had the alarm timely sounded The record shows that she is more than qualified to give such an opinion Rule 702, SCRE, permits an expert to qualify based on her knowledge, education, or experience Dr Wilkins actually qualifies on all three bases Dr Wilkins is a board certified pediatrician and specializes in neonatal perinatal medicine ⁴ (Dr Donna A Wilkins Dep at 7, line 25, 8, line 1) Dr Wilkins has been practicing medicine for 29 years She studied SIDs in medical school, in pediatric residency, and her neonatology practice She reads articles on SIDS from time to time and keeps up with the latest research She even subscribes to three journals that covers SIDS and has experience in neonatal care in the home setting (Dr Donna A Wilkins Dep at 8, line 21, 17, lines 2-6, 17, lines 20-25, 18, lines 16-25, 19, lines 17-23) Dr Wilkins, by virtue of her knowledge, education, and experience thus is eminently qualified to give an opinion on whether India would have survived had the alarm timely sounded

⁴ Neonatal perinatal medicine is the care of sick newborns in an intensive care unit (Dr Donna A Wilkins Dep at 8 lines 5 6)

The Circuit Court also ruled that “Dr. Wilkins’ opinions on survivability of SIDS do not meet the State v. Council factors for reliability.” (Order at 8). As the South Carolina Supreme Court has ruled, “the Council factors for scientific evidence serve no useful analytical purpose when evaluating nonscientific expert testimony.” State v. White, 382 S.C. 265, 676 S.E.2d 684 (2009). Dr. Wilkins arrived at her opinion by studying the monitor log print outs that showed each event where India’s breathing and heart fell outside of normal parameters, eliminated any other cause of the death based on the medical records, and then applied her extensive experience in working with newborns in similar situations. Because Dr. Wilkins offered routine medical testimony based on her knowledge, education, and experience rather than scientific testimony, her testimony could not properly be evaluated under State v. Council. Given her expertise in the field, no credible argument can be made that her opinion lacks sufficient reliability to pass Rule 702 scrutiny.

D. The experts’ opinions established defect, causation, and alternative design for summary judgment purposes

When the experts’ opinions are considered in opposition to the summary judgment motion, the Plaintiffs clearly made a submissible case on the existence of a defect in the software, on the defect being the proximate cause of the monitor’s failure to sound when India stopped breathing, and on the availability of a feasible alternative design that would have prevented the accident.

Although the Circuit Court signed a draft order prepared by defense counsel that also purported to exclude the experts’ testimony under Rule 403, the Circuit Court gave no explanation as to how the crucial probative value of the opinions was outweighed by

their prejudicial effect. The Court of Appeals can properly disregard this conclusory finding, but, in any event, there is nothing in any expert's opinion that would suggest an opinion on an improper basis. Prejudice for purposes of Rule 403 means "an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one." Old Chief v. United States, 519 U.S. 172, 180 (1997) (construing the identical federal rule). The summary judgment entered in favor of the Defendant must therefore be reversed.

II. THE SUMMARY JUDGMENT MUST BE REVERSED BECAUSE THE CIRCUMSTANTIAL EVIDENCE ALONE WAS SUFFICIENT TO ESTABLISH DEFECT AND CAUSATION

Assuming *arguendo* that the experts' specific defect opinions were properly excluded, the summary judgment must still be reversed because the Plaintiffs presented sufficient circumstantial evidence with respect to their statutory strict liability claim to reach the jury on the existence of a defect and causation. The Circuit Court did not address this argument in the Order granting summary judgment. In denying the Plaintiffs' Rule 59 motion, the Circuit Court rejected this because, *inter alia*, the argument purportedly had not been raised prior to the Rule 59 motion. In fact, however, the Plaintiffs raised the argument in the Plaintiffs' Opposition to Second Motion for Summary Judgment and reiterated it at the February 10, 2009 hearing (Transcript at 59). The Defendant's attorney even argued that South Carolina did not permit this in his November 9, 2009

Reply

South Carolina law squarely supports this argument. In South Carolina, “[a]ny fact in issue may be proved by circumstantial evidence as well as direct evidence, and circumstantial evidence is just as good as direct evidence if it is equally as convincing to the trier of the facts.” St. Paul Fire and Marine Ins. Co. v. American Ins. Co., 251 S.C. 56, 59-60, 159 S.E.2d 921 (1968). Further, “[t]he law makes absolutely no distinction between the weight or value to be given to either direct or circumstantial evidence.” Moriarty v. Garden Sanctuary Church of God, 341 S.C. 320, 534 S.E.2d 672 (2000) (emphasis added), quoting State v. Needs, 333 S.C. 134, 156 n. 13, 508 N.E.2d 857 (1998).

The Plaintiffs thus are not required to show a specific defect in the CAS monitor but may present circumstantial evidence of defect and causation. Where a plaintiff sues under the strict liability in tort doctrine, the use of circumstantial evidence to prove defect and causation is uniformly accepted in all other states. The Restatement (Third) of Torts: Products Liability itself now provides that a plaintiff in a product liability action is not required to prove a specific defect in a product and may properly prove that the product was defective and unreasonably dangerous using circumstantial evidence.

It may be inferred that the harm sustained by the plaintiff was caused by a product defect existing at the time of sale or distribution, without proof of a specific defect when the incident that harmed the plaintiff

- (a) was of a kind that ordinarily occurs as a result of product defect, and
- (b) was not, in the particular case, solely the result of causes other than product defect existing at the time of sale or distribution.

Restatement (Third) of Torts: Product Liability § 3 (1998). Comment c further explains

No requirement that plaintiff prove what aspect of the product was defective. The inference of defect may be drawn under this Section without proof of the specific defect. Furthermore, quite apart from the question of what type of defect was involved, the plaintiff need not explain specifically what constituent part of the product failed.

Restatement (Third) of Torts Products Liability § 3 Comment c (1997)

While South Carolina state courts have not yet addressed this Restatement provision, that is irrelevant to the Circuit Court's error in this case because South Carolina law most certainly permits any fact in issue to be proven by circumstantial evidence as previously noted

Nor is the use of circumstantial evidence prohibited in this strict liability case because South Carolina does not recognize *res ipsa loquitur* by that name. First, *res ipsa loquitur* is a negligence concept, and not a strict liability one. The Plaintiffs *are not proceeding under negligence at all* but under strict liability. Second, the Plaintiffs have never argued *res ipsa loquitur* but simply that they can prove their case using circumstantial evidence.⁵ Third, the Plaintiffs have never argued that 'the fact of an accident' alone is sufficient to reach the jury as it most certainly is not. But direct eyewitness evidence of a malfunction in the normal use of a product, *and* evidence ruling out all causes of the malfunction but a product defect is sufficient to reach the jury in all other states. That is precisely the evidence presented to the Circuit Court.

In this case, the Plaintiffs presented compelling circumstantial evidence of defect and causation. First, four eyewitnesses testified that the CAS monitor malfunctioned on the night of the accident in that it never made an audible alarm. Second, the parents also testified that the monitor had been properly set up and yet failed to sound when the infant

⁵ While this case does not involve *res ipsa loquitur* at all, it should be noted that South Carolina most certainly does allow negligence to be proved by circumstantial evidence. As even Dean Prosser has recognized, *res ipsa loquitur* 'is accepted and applied by all of our courts, except in South Carolina, which still mysteriously rejects it by name, while applying as a practical matter under principles of circumstantial evidence.' W. Prosser & P. Keeton, Prosser & Keeton on Torts, § at 244 (5th ed 1984).

stopped breathing. Third, the parents testified that the electric power had operated that night and, therefore, the alarm failure could not be blamed on a lack of power. Fourth, the Plaintiffs presented expert testimony that the CAS software contained a design defect that possibly could permit this very type of malfunction - Dr. Daugherty's observation that the software used unstructured spaghetti code in violation of industry standards and that this code was vulnerable to external interrupt events that would cause the alarm to fail to sound despite a signal from the electrodes of heart or breathing problem. The opinions of the other two defect expert corroborate Dr. Daugherty's opinion that the code structure permitted errors to occur.

Fifth, in both his deposition and his April 17, 2009 Affidavit, Mr. Daugherty provided an extensive explanation of precisely how he had eliminated all possible causes of the malfunction but a defect in the software and concluded in effect that the most probable explanation was that a defect in the software had proximately caused the monitor to fail to sound an alarm. Sixth, Mr. Daugherty provided a reliable opinion as to how this could happen notwithstanding that the monitor's report log did not show a malfunction on the night in question.

The various objections listed by the Court disappear when the case is viewed from the standpoint of circumstantial evidence. CAS made no showing that Dr. Daugherty's opinion that the code structure permitted errors to occur was not reliable - CAS contended only that his opinion that a specific error in the code existed and caused the malfunction was unreliable because he could not find the defective code at the time of his deposition, could not reproduce a malfunction by testing, and could point to no peer review studies,

or rate of error calculations to support his opinion ⁶These requirements, however, are imposed only when an expert offering scientific testimony opines as to a specific defect in his opinion. Similarly, when a plaintiff proceeds on circumstantial evidence, there is no requirement that a feasible alternative design be identified, although Mr. Daugherty in fact identified such a design – the use of structured code. Finally, there is certainly no inconsistency between the depositions and affidavits on the circumstantial evidence – the affidavits simply provide a fuller explanation of how the circumstantial evidence shows defect and causation.

The Circuit Court accordingly erred in ruling that the Plaintiffs could not use circumstantial evidence to prove their case. Because the circumstantial evidence alone establishes defect and causation, the summary judgment motion be denied.

CONCLUSION

For any and all of the reasons stated, the summary judgment must be reversed and the case remanded for trial.

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⁶ Dr. Daugherty presented compelling testimony that his opinion – that unstructured code was a defect that permitted this type of error to occur – reflected industry standards and cited to peer-reviewed studies that supported this conclusion.

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08- CP-38-826

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

AMENDED INITIAL BRIEF OF APPELLANTS

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STATEMENT OF ISSUES ON APPEAL

1 Did the Circuit Court abuse its discretion in excluding the opinions of the three software experts on grounds that the opinions failed to meet Rule 702's requirement of reliability?

2 Did the Circuit Court abuse its discretion in excluding the post-deposition affidavits of software experts Daugherity and Lively under Cothran v Brown, 357 S C 210, 592 S E 2d 629 (2004)?

3 Did the Circuit Court abuse its discretion in excluding the expert opinion of medical expert Wilkins under Rule 702 on grounds of qualification and reliability?

4 Given that the opinions of the experts should have been considered in deciding the summary judgment motion, did the Circuit Court err in granting the motion for summary judgment?

5 Assuming arguendo that the software experts' specific defect opinions were properly excluded, did the Circuit Court err in granting summary judgment because the circumstantial evidence alone presented was sufficient to establish defect and causation for summary judgment purposes?

STATEMENT OF THE CASE

On April 7, 2006, Kareem J Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Iyanna Graves, filed a wrongful death injury action against the Defendant, CAS Medical Systems, Inc , in the Court of Common Pleas for Orangeburg County, South Carolina In this action, the Plaintiffs alleged that the death of their infant child, India Iyanna Graves, had been proximately

caused by the alarm failure of a CAS AMI Plus Apnea/Heart Rate Monitor designed, manufactured, and sold by the Defendant. The Defendant filed an Answer denying liability.

Discovery commenced and the Plaintiffs designated three software experts who opined as to the defects and causation with respect to the monitor, and a medical expert who opined that India would have survived had the alarm timely sounded. Following the deposition of the experts, the Defendant on March 6, 2009, filed a motion for summary judgment on all claims. The Circuit Court declined to rule on the motion at this time and ordered the Plaintiffs to respond fully to CAS's outstanding discovery, including discovery regarding the experts' opinions.

The Plaintiffs thereafter provided this discovery and also served the Defendant with affidavits from software experts Dr. Walter C. Daugherty and Dr. William R. Lively that supplemented and clarified their deposition testimony. On April 28, 2009, CAS filed a motion to strike the affidavits and to exclude the deposition testimony under Rule 702, SCRE. The Plaintiffs filed oppositions to these motions and additional memoranda opposing the summary judgment motion.

By Order filed April 8, 2010, the Circuit Court granted the Defendant's motion to exclude the affidavits. The Circuit Court also excluded the experts' opinions under Rule 702 and granted the summary judgment motion. The Circuit Court on April 23, 2010, denied the Plaintiffs' motion to alter or amend these orders filed under Rule 59, SCRCP.

The Plaintiff timely filed a Notice of Appeal from the orders excluding the experts' deposition testimony and the affidavits, the order granting summary judgment, and the order denying the Rule 59 motion.

STATEMENT OF FACTS

A The Product

The CAS AMI Plus Apnea/Heart Rate Monitor is a medical device designed to monitor the breathing and heart rates of infants. A foam belt is wrapped around the infant's chest and secured with a Velcro strip. Electrodes that monitor chest movement and heart rate are attached to the belt, the belt is attached to a patient cable running to the monitor. The electrodes sense the expansion and contraction of the infant's chest. When the infant stops breathing and no movement is detected, an alarm is supposed to sound. If the electrodes sense the heart beat is outside the set alarm limits, an alarm is also supposed to sound. The alarm continues to sound until the problem is corrected, the reset button is pushed, or the power turned off. (Caregiver's Manual)(Pls Initial Request for Production 6)

In addition to these audio signals, there are lights, *inter alia*, for power and for heart and breathing function on the front of the monitor. When the power is on and heart and breathing are outside alarm parameters, the lights are green. When breathing or heart activity falls within the alarm parameters, the lights turn red. Id

When the electrodes detect a breathing or heart event within the alarm parameters, the event is logged internally in the monitor. Further, the software sends a signal to the audible alarm to activate. The software also sends a signal to a microphone near the internal alarm to listen for the audible alarm. If the microphone reports back to the software that the alarm is not heard, a back-up alarm is activated. The monitor's log records any failure of the internal or back-up alarm to sound. (Affidavit of Frank C Painter)

The alarm is quite loud – 85 decibels (April 17, 2009 Affidavit of William Lively) The alarm is intended to awaken both the baby and the parents, or alert the parents if they are not asleep The baby either begins breathing normally once awake or, if not, the parents are instructed to stimulate the baby The stimulation usually revives the baby, if not the parents are instructed to obtain prompt medical attention for the baby

The CAS AMI Plus Apnea/Heart Rate Monitor for many years has had problems with its audible alarm system malfunctioning Approximately 50 complaints that the alarm failed to sound when the system detected a life-threatening event have been made by users to CAS and/or to the Federal Drug Administration (Frank R Painter Dep Ex 17) In response to 2 or 3 of these complaints, CAS itself could not determine the cause of the alarm failure and installed new motherboards in the system (Walter C Daugherty Dep at 39, lines 19-25, 40, lines 1-6)

Plaintiffs' software expert Frank R Painter carefully examined each of these complaints and testified that they are "very, very similar in nature to the ones we have " (Frank R Painter Dep at 66, lines 11-13) In all 50 of the reports, the monitor had the LED light lit, there was an alarm condition, and no audible alarm sounded (Frank R Painter Dep at 72, lines 15-20)

B The short life and death of India Graves

India Graves was born prematurely along with triplet sisters Paris and Asia to Tara Graves on December 30, 2003 Due to the infants' medical condition, doctors at the hospital ordered that all three babies be monitored with sleep apnea monitors to monitor their breathing and heart rate CAS AMI Plus Apnea/Heart Rate Monitors were delivered

to the hospital for all three babies and attached to the children during their stay at the hospital. Hospital personnel also instructed Tara and Kareem Graves as to the proper use of the monitors once the babies had been released from the hospital. (Amended Complaint)

On February 17, 2004, the hospital released the babies to their parents' care with the AMI Plus monitors. India and her sisters returned to the Graves' Orangeburg, South Carolina home. From February 17 to April 11, 2004, Tara or Kareem Graves properly attached the monitor to India each night before they went to bed. (Amended Complaint)

Unknown to the parents, during this period the audible front alarm on the monitor failed to sound 11 times and the rear alarm failed to sound 4 times. (Walter C. Daugherty Dep. at 57, lines 4-6). As Dr. Daugherty explained in this deposition, the CAS monitor itself "is reporting that it is defective." (Walter C. Daugherty Dep. at 50, line 57).¹

On the night of India's death, India and her two sisters were sleeping in the same upstairs bedroom as Tara and Kareem. Each girl slept in a bassinet "right next to my bed." (Tara P. Graves Dep. at 74, lines 3-5)

Sometime between 1 a.m. and 2 a.m., Tara was ironing a shirt in the bedroom. India was propped up on a pillow on the bed. The electrodes were already attached to her and by the patient cable to the monitor. (Tara P. Graves Dep. at 84, lines 101-02). Kareem had already fallen asleep in the bed. (Tara P. Graves Dep. at 81, lines 1-15). Tara noticed India had fallen asleep. Tara "picked her up and laid her in the bassinet and set

¹ These failures were discovered after India's death when the Plaintiffs' software experts examined the computer log that recorded these alarm failures.

the monitor up under the bottom [of the bassinet]’ (Tara P Graves Dep at 81, lines 5-8)

Tara then went to bed about 2 00 a m (Tara P Graves Dep at 85, lines 2-5)
Shortly after 2 00 a m , according to the printouts from the CAS Monitor, India began have breathing difficulties For the next hours, India had episodes of hypoxia, bradycardia, and not breathing Finally, she went into full cardiac arrest (Dr Donna A Wilkins Dep at 71, lines 18-20)(“[t]his was an hour of hypoxia, bradycardia, not breathing, and, finally, cardiac arrest because it went on so long’) By 2 54 a m India had no heart rate and had passed the resuscitation point (Dr Donna A Wilkins Dep at 72, lines 2-7)

The CAS Monitor properly recorded all of these episodes on the event log The alarm lights also turned red as each episode occurred Tragically, however, the audible alarm failed to sound (Tara P Graves Dep at 100, lines 19-23) Tara and Kareem accordingly continued to sleep through not only the first event but also past the 2 54 a m event when India’s heart stopped beating

At some point after 2 54 a m , Tara was awakened by a bad dream and jumped out of the bed She went into another bedroom and checked on her sister and her son Then she returned to her bedroom and checked Paris and Asia Both girls “jumped when she touched them When Tara nudged India, however, India did not move Tara turned the lights on and realized India was not breathing She screamed for her husband and told him to call 911 because India was not breathing She started CPR on India (Tara P Graves Dep at 85, lines 7-25) See also (Kareem J Graves Dep at 48, lines 4-20)

Although India had completely stopped breathing and her heart had stopped, Tara testified that she did not hear any alarms going off from the time India went to bed to her death (Tara P Graves Dep at 100, lines 19-23) Nor did she hear any alarm sound on the other monitors (Tara P Graves Dep at 110, lines 24-25) The evidence is undisputed, however, that the monitor was otherwise properly operational Tara testified that, as she tried to revive India, all of the lights on the monitor were on She could not recall if they were flashing but “I know they were all lit up in red ” (Tara P Graves Dep at 88, lines 8-9) All the lights were red ‘ except for the green power” light (Tara P Graves Dep at 88, lines 10-11)

Tara knew that the audible alarm had worked on past occasions (Tara P Graves Dep at 158, lines 17-19) The alarm had awakened her in the middle of the night on these occasions (Tara P Graves Dep at 159, lines 22-24)

Kareem likewise remembered that “all the lights were on ” (Kareem J Graves Dep at 50, lines 21-22) He was adamant, however, that “I didn t hear any alarms” at all that night (Kareem J Graves Dep at 60, lines 16-23) He further explained that ‘ you can’t sleep through the alarm I mean even the chirping you can’t sleep through that ” (Kareem J Graves Dep at 69, lines 16, 21) He testified that he is not a heavy sleeper (Kareem J Graves Dep at 69, line 25)

Tara’s sister, April Simmons, and April s son were also sleeping in an adjoining bedroom that night Although April on past occasions had heard the monitor s alarm go off regardless of whether she was upstairs or downstairs, she did not hear any alarm from the monitor that night (April Simmons Dep at 18, lines 18, lines 6-8, 31, lines 22-24, 32, lines 3-12)

Neither Kareem nor Tara turned the monitor off while waiting for the EMS (Tara P Graves Dep at 90, lines 8-16) Orangeburg County EMS paramedic Anita R Kelly arrived at the scene at 4 01 a m Although the monitor lights remained red and the monitor should have continued to alarm, Ms Kelly likewise did not hear any alarm sounding during the time she was in the house (Anita R Kelly Dep 96, lines 19-24) She determined that India had no heart rate Ms Kelly wrote on her incident report that “alarm showing loosely, negative alarm” (Anita R Kelly Dep at 47, lines 18) In her deposition, Ms Kelly testified that she had no memory of whether she obtained this information by actually looking at the monitor, or whether the mother told her the alarm had failed to sound After refreshing her memory by reviewing her report, she testified “yes, I did look at the monitor ’ (Anita R Kelly Dep at 101, lines 21-22) She explained that she would have used quotation marks if the mother had told her the alarm had not sounded and that the absence of quotation marks meant she had actually looked at the monitor herself (Anita R Kelly Dep at 92, lines 7-13)

Ms Kelly took India’s body out to the EMS truck (Tara P Graves Dep at 91, lines 7-10) The coroner arrived at the truck and pronounced the child dead (Tara P Graves Dep at 97, lines 18-20) An autopsy disclosed that the baby had died of sudden infant death syndrome (Tara P Graves Dep at 96, lines 17-20)

C The Plaintiffs’ Evidence of Defect and Causation

The Plaintiffs subsequently filed the instant wrongful death action against CAS to recover for India s death The Amended Complaint asserted claims for strict liability, breach of warranty, and negligence (Amended Complaint)

The Plaintiffs' software experts, Dr. Walter C. Daugherty, a computer science instructor, and Dr. William A. Lively, a computer science professor, and Frank R. Painter, a biomedical engineer, examined the CAS Monitor and the software that operates the alarm system. They read the depositions of Tara and Kareem wherein the parents described the events of the night of April 11 and stated that the alarm had failed to sound. They also reviewed the many other complaints made by alarm users that the alarm had failed to sound. As previously noted, the experts also discovered that the printout had recorded fifteen incidents where the alarm had failed to sound when hooked up to India prior to her death. The experts also tested an exemplar monitor. Based on this review and their extensive knowledge of software code, the experts determined that the *design* of the software used in the CAS monitor was defective, and that within this design there were defective lines of code that caused the failure of the alarm to sound during the night of India's death. In their depositions, the experts opined that the software was defective and unreasonably dangerous for a life-critical system such as the CAS monitor, and the defective software was a proximate cause of the alarm failing to sound on the night of India's so easily preventable death.

In his deposition, Dr. Daugherty testified that "the defect is the overall design" (Daugherty Dep. at 33, lines 19). In this regard,

The code is poorly designed. The implementation is inadequate for proper testability. The code was not properly maintained and, consequently, I consider the software to be defective in design and inappropriate to be relied on in a life critical system.

(Daugherty Dep. at 86, lines 18-23). He explained that the poor testability was the result of the code having an incredible 34 billion paths through the code for just one of the 800 modules. (Daugherty Dep. at 75, lines 1-8). More specifically, he explained that the

paths of execution in the code were subject to being interrupted by external events. Thus, if the electrodes detected a breathing rate or heart rate on the infant that should trigger the alarm sounding, the alarm sound command would first test for a low battery and then would conduct other tests before it reached the end of the path where the alarm sound command was located. But, if an “external interrupt event” happened during this sequence, the command might not complete the path and the alarm would not sound.

The first test is to test for the very low battery condition. If that’s false, that is, it’s not in a very low battery condition, then it goes to the next test to see if the alarm failed flag has been set. But if interrupts are on, then it’s possible that another external event could interrupt the processing at this point so that it could never complete the path and end up to the point right here that would turn the alarm on.

So if the environment in which it’s operating had interrupts on and an external interrupt occurred after it entered this routine but before it got to the alarm on point, then the alarm would fail to sound.

(Daughterity Dep. at 36, lines 15-25, 37, lines 1-4) With respect to the type of external interrupt events that could cause the alarm not to sound, Dr. Daughterity explained as follows:

Q What type of external interrupt are you referring to?

A This is basically a device that has inverted flow of control, so the program itself does not determine the order in which the modules are executed; that’s determined by the external inputs, such as the power on/off button, the reset button, a signal from the leads, that would be current that was passed through the subject’s body, there’s a clock tick, when the clock ticks, there’s an internal Watchdog timer, and there’s an external Watchdog timer.

So all of those things are outside the program’s control, and the program has no way of knowing in what sequence or order any of those external events will occur because they are asynchronous, or the length of time between them.

(Daughterity Dep. at 37, lines 7-21) See also (Frank R. Painter Dep. at 55-57) (discussing the type of external interrupt events that could cause the alarm not to sound)

He further testified that the defective design more likely than not proximately caused the alarm not to sound

Q What is the defect in this programming?

A Well, we discussed that in several of my answers, that the defect is an overall defect of poor quality design, poor testability, and poor maintenance. The term "bug" is usually used to refer to a specific line or lines of code which are incorrect and have to be replaced by the correct lines of codes.

Q Did that defect, as you describe it, cause the monitor alarm not to sound?

MR DuBose: Object to the form.

A Most likely. As I said --

Q (BY MR WINSLOW) More likely than not?

A More likely than the other possible causes that I considered.

(Daughterity Dep. at 167, lines 13-25, 168, lines 1-3)(emphasis added)

Dr. Lively concurred in this opinion. All three experts agreed that this defect rendered the monitor unreasonably dangerous for a life critical system. (Daughterity Dep. at 163, lines 1-2), (Frank R. Painter Dep. at 117-119, 175, lines 2-13), (William M. Lively Dep. at 106, lines 1-23)

Dr. Donna Wilkins, the Plaintiffs' medical expert, testified in her deposition that, if the alarm had sounded, "the baby would be alive today" because the parents would have responded and stimulated the baby. (Wilkins Dep. at 70, lines 2-13). She further assigned the percentage likelihood that this would have occurred at "more than 51%" (Wilkins Dep. at 129, lines 23-25).

In his deposition, Mr. Daughterity testified that CAS should have used an alternative design – structured code – that was available at the date of manufacture of the product and would have eliminated the defect. (Daughterity Dep. at 33, line 25, 34, lines 1-10). The structured code has a specific path and destination that has no interruption

paths that cross over the path. In his affidavit, Mr. Daugherty gave precise testimony as to the type of code that should have been used- “other adequate flow of control mechanism available such as if, if else, for while, do, and switch, that would have allowed the program to function in an organized linear manner. The proper use of these statements would have avoided creating spaghetti code and would have prevented intermittent failures.” (April 17, 2009 Affidavit of Walter Daugherty). Dr. Lively testified that such code could be written at a cost of \$300,000 to \$400,000. (William R. Lively Dep. at 150, lines 16-23)

The software experts also submitted affidavits that supplemented their deposition testimony. Subsequent to his deposition, Dr. Daugherty studied the log reports and goto statements. He submitted an affidavit in which he explained that log reports more likely than not were unreliable because of the use of spaghetti code and goto statements. Further in light of the eyewitness testimony that the alarm did not function, “it is certain that the logs are not reliable.” He also concluded that the excessive goto statements in the code contributed to the improper structure and “allowed the software to execute in unpredictable and uncontrollable ways.” (April 17, 2009 Affidavit of Walter Daugherty)

Dr. Lively’s March 11, 2009 affidavit reiterated the deposition testimony that “the unorganized structure of the code causes lines of code to not follow their intended path and reach their required destination.” (March 11, 2009 Affidavit of William Lively). The affidavit also reiterated that the faulty software design caused the alarm problem. He squarely opined again that “Spaghetti Code is a direct cause for the alarm to malfunction.” (March 11, 2009 Affidavit of William Lively)

The Circuit Court, however, granted CAS's motion to exclude the deposition testimony of all four experts under Rule 702, SCRPC. In addition, the Circuit Court granted CAS's motion to exclude the post-deposition affidavits of Dr. Daugherty and Dr. Lively under Cothran v. Brown, 357 S.C. 210, 592 S.E.2d 629 (2004). With the opinions of these experts thus excluded, the Circuit Court concluded that the Plaintiffs had no admissible evidence to reach the jury on defect, causation, and alternative design. The Circuit Court therefore granted summary judgment for the Defendant.

In the Plaintiffs' Rule 59, SCRPC motion, the Plaintiffs pointed out that the Circuit Court had failed to address their argument that the Plaintiffs had presented sufficient *in circumstantial* evidence with respect to their statutory strict liability claim to reach the jury on the existence of a defect and causation. The Circuit Court remedied this omission in its Order denying the motion for reconsideration by ruling that a plaintiff cannot prove a product defect by circumstantial evidence in South Carolina. (Order Denying Rule 59 Motion)

ARGUMENT

The Circuit's Court's decision to grant summary judgment for CAS on 'no defect' grounds almost defies belief. Whatever the merits of the experts' opinions as to precisely what was wrong with the software, the Circuit Court was presented with the sworn testimony of Tara Graves, Kareem Graves, Anita Kelly, and April Simons that the alarm did not sound after the Graves' awoke, *even though the monitor was still attached to India and India had no heart rate and had stopped breathing*. In other words, the alarm not only failed to sound during

India's final hour while the adults were asleep but after India's death while the Graves family and the paramedic were dealing with this tragic incident. On summary judgment, of course, the Circuit Court was *required* to accept this sworn testimony as true. Given this direct eyewitness testimony of the monitor failing to perform the very function it was designed to perform, it is obviously nonsensical to conclude, as did the Circuit Court, that no evidence of defect was presented because the experts could not find the specific lines of code responsible for the malfunction.

In granting summary judgment for the Defendant on "no defect" grounds, the Court made two distinct errors that requires that the summary judgment be reversed. First, the Court improperly excluded the opinions of the Plaintiffs' experts both as stated in their depositions and in their subsequent affidavits. Had the experts' opinions been admitted, their testimony as to defect, causation, and alternative design would have precluded summary judgment. Second, even without the experts' specific defect opinions, South Carolina law permits any fact at issue to be proven by circumstantial evidence. The circumstantial evidence presented alone was sufficient to establish defect and causation and to entitle the Plaintiffs to reach the jury.

I THE SUMMARY JUDGMENT MUST BE REVERSED BECAUSE THE CIRCUIT COURT ABUSED ITS DISCRETION IN EXCLUDING THE TESTIMONY OF THE PLAINTIFFS' EXPERT WITNESSES

A The opinions offered by the Plaintiffs' experts meet all of the requirements of Rule 702

In South Carolina, trial courts are obligated to review all expert testimony to ensure that it passes the threshold foundation requirements of qualification, reliability and assistance to the trier of fact

We hold that the trial courts of this state have a gatekeeping role with respect to all evidence sought to be admitted under Rule 702, whether the evidence is scientific or nonscientific. In the discharge of its gatekeeping role, a trial court must assess the threshold foundational requirements of qualifications and reliability and further find that the proposed evidence will assist the trier of fact. The familiar evidentiary mantra that a challenge to evidence goes to "weight, not admissibility" may be invoked only after the trial court has vetted the matters of qualifications and reliability and admitted the evidence.

State v. White, 382 S.C. 265, 274, 676 S.E.2d 684 (2009)

Although all expert testimony – both scientific and nonscientific – thus must pass the reliability requirements of Rule 702 in order to be admissible, the factors used to assess reliability differ *substantially* depending on whether the expert testimony is scientific, or nonscientific. If the expert testimony is *scientific*, trial courts under State v. Council are required to consider the following factors to determine if the evidence passes threshold admissibility requirements:

In considering the admissibility of scientific evidence under the Jones standard, the Court looks at several factors, including (1) the publications and peer review of the technique, (2) prior application of the method to the type of evidence involved in the case, (3) the quality control procedures used to ensure reliability, and (4) the consistency of the method with recognized scientific laws and procedures.

State v. Council, 335 S.C. 1, 19-21, 515 S.E.2d 508 (1999)

Conversely, when the proffered expert testimony is *not* scientific, the State v. Council/State v. Jones factors do not apply as they serve no useful analytical purpose.

State v. Council, 335 S.C. 1, 515 S.E.2d 508 (1999) is often cited for the gatekeeping role of the trial court with regard to expert testimony under

Rule 702, as well as the standard reliability factors for scientific evidence. The foundational reliability requirement for expert testimony does not lend itself to a one-size-fits-all approach, for the Council factors for scientific evidence serve no useful analytical purpose when evaluating nonscientific expert testimony.

State v. White, 382 S.C. 265, 676 S.E.2d 684 (2009). In State v. White, the Court

explained that it would not set forth similar factors for nonscientific evidence but would leave that task up to the trial court.

We do not pretend to know the myriad of Rule 702 qualification and reliability challenges that could arise with respect to nonscientific expert evidence. Consequently, we offer no formulaic approach that will apply in the generality of cases. Yet the trial court in the discharge of its gatekeeping role in determining admissibility must initially answer the always present threshold questions of qualification and reliability.

382 S.C. at 276. For example, in State v. White, the Court ruled that dog tracking expert evidence passed the gatekeeping test based on the following foundation rather than the Jones/Council factors:

By extrapolating from our case law and other authorities, we conclude a sufficient foundation for the admission of dog tracking evidence is established if (1) the evidence shows the dog handler satisfies the qualifications of an expert under Rule 702, (2) the evidence shows the dog is of a breed characterized by an acute power of scent, (3) the dog has been trained to follow a trail by scent, (4) by experience the dog is found to be reliable, (5) the dog was placed on the trail where the suspect was known to have been within a reasonable time, and (6) the trail was not otherwise contaminated.

382 S.C. at 265. Similarly, in Jamison v. Morris, 385 S.C. 215, 684 S.E.2d 168 (2009), the Court held that an expert's alcohol impairment testimony based on a SLED blood test result failed the reliability test not because of the Jones/Council factors but because the expert could not prove a chain of custody for the blood test.

It must be remembered that *exclusion under Rule 702 is the exception rather than the rule*. Normally, questions about the reliability of expert testimony should be

challenged by vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof. Addressing the similar federal standard, the Fifth Circuit accordingly has explained

However, in determining the admissibility of expert testimony, the district court should approach its task "with proper deference to the jury's role as the arbiter of disputes between conflicting opinions. As a general rule, questions relating to the bases and sources of an expert's opinion affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration." *Viterbo v. Dow Chemical Co.*, 826 F.2d 240, 422 (5th Cir. 1987).

As the Court in *Daubert* makes clear, however, the trial court's role as gatekeeper is not intended to serve as a replacement for the adversary system. "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."

United States v. 14 38 Acres of Land, 80 F.3d 1074, 1078 (5th Cir. 1996)

With the gatekeeping requirements of Rule 702 thus properly understood, the Circuit Court clearly abused its discretion in excluding the opinions of the Plaintiffs' experts. Most obviously, the Circuit Court inexplicably concluded with no support whatsoever that the opinions of the experts "fit within the scientific category." (Order at 6). The court then proceeded to vet their testimony under the factors used to vet *scientific* expert testimony. Finding that the opinions had not been published, had not been subjected to peer review, had not been tested, and had no known rate of error, the Court excluded the opinions.

The Circuit Court's mischaracterization of the expert testimony alone requires reversal. Neither Daugherty, Lively, Painter nor Wilkins offered scientific testimony. The software experts simply offered opinions based on well-

established computer science principles and then reasoned to the best inference

Dr. Wilkins gave routine medical expert testimony

While the Circuit Court purported to rule that exclusion would be mandated even if the testimony was considered merely technical, the Circuit Court did not undertake a separate inquiry into the factors that would bear on the reliability of this obviously nonscientific testimony. The only additional reliability factor the court considered was the defect experts' methodology of accepting as true *the eyewitness testimony* that the monitor malfunctioned on the night of India's death and then excluding all causes of the malfunction but a product defect. The Circuit Court in effect ruled that this methodology was not reliable. But this type of methodology, known as "differential diagnosis" in the medical context, and "reasoning to the best inference" in non-medical contexts, is a well-accepted methodology for diagnosing medical problems, Westberry v. Gislaved Gummi AB, 178 F.3d 257, 262 (4th Cir. 1999) (holding that differential diagnosis is a reliable technique "of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated"), Clausen v. M/V New Carissa, 339 F.3d 1049, 1058-59 (9th Cir. 2003) (recognizing differential diagnosis as a reliable method), Zuchowicz v. United States, 140 F.3d 381, 387 (2d Cir. 1998) (upholding district court decision to admit differential diagnosis testimony), and for determining product defects Bitler v. A.O. Smith, 400 F.3d 1227, 1235-36 (10th Cir. 2004).

Indeed, the reliability of this methodology is underscored by the widely accepted rule that circumstantial evidence alone is sufficient to establish defect and causation in a strict liability case.

Jurisdictions which model their decisional law along Restatement lines uniformly hold that a strict liability claimant may demonstrate an unsafe

defect through direct eyewitness observation of a product malfunction, and need not adduce expert testimony to overcome a motion for summary judgment. Although it is helpful for a plaintiff to have direct evidence of the defective condition which caused the injury or expert testimony to point to that specific defect, such evidence is not essential in a strict liability case based on § 402A and direct observation of "[t]he malfunction itself is circumstantial evidence of a defective condition."

Thus, a manufacturer's own employee-expert does not necessarily trump a strict liability claimant's circumstantial non-"expert" evidence at the summary judgment stage.

[fn11] Indeed, strict liability claimants may resort to an array of circumstantial evidence. ("Such circumstantial evidence includes (1) the malfunction of the product, (2) expert testimony as to a variety of possible causes, (3) the timing of the malfunction in relation to when the plaintiff first obtained the product, (4) similar accidents involving the same product, (5) elimination of other possible causes of the accident, and (6) proof tending to establish that the accident does not occur absent a manufacturing defect")

Perez-Trujillo v. Volvo Car Corporation, 137 F.3d 50, 57 (1st Cir. 1998) ²

There are no South Carolina cases rejecting reasoning to the best inference as an accepted methodology under Rule 702 in product liability cases. In the products context, this methodology must meet the following standards:

Experts must provide objective reasons for eliminating alternative causes when employing a "differential analysis." Furthermore, the inference to the best explanation must first be in the range of possible causes; there must be some independent evidence that the cause identified is of the type that could have been the cause. But more than mere possibility, an inference to the best explanation for the cause of an accident must eliminate other possible sources as highly improbable, and must demonstrate that the cause identified is highly probable.

400 F.3d at 1237-38. The Plaintiffs' experts met each of these standards as discussed *infra*. The Circuit Court accordingly clearly erred in faulting the experts' opinions because they began their analysis with the assumption that the monitor had malfunctioned, as the eyewitness testimony established.

² The Plaintiffs have alternatively contended that they were entitled to reach the jury on the circumstantial evidence in the case even if the specific defect testimony was properly excluded.

Finally, the exclusion of the experts cannot be justified because they failed to reproduce a malfunction through testing. It must be remembered that the defective design of the code itself precluded reproductive testing – the astronomical number of paths in one module made it simply impossible to duplicate all of the possible sequences. In any event, Rule 702 does not require full reproductive testing of an expert's opinion. Indeed, testing is not necessarily required at all, particularly where as here nonscientific evidence is involved. As the Tenth Circuit explained (under the similar federal standard) “testing is not necessary in all instances to establish reliability under *Daubert*.” Bitler v. A.O. Smith, 400 F.3d 1227, 1235-36 (10th Cir. 2004). Testing is most important [w]hen an expert proposes a theory that modifies otherwise well-established knowledge about regularly occurring phenomenon.” Thus, the court in Bitler upheld the testimony of two experts who had not conducted tests of their opinions.

Employing his experience and knowledge as a fire investigator, Boh observed the physical evidence at the scene of the accident and deduced the likely cause of the explosion. Although such a method is not susceptible to testing or peer review, it does constitute generally acceptable practice as a method for fire investigators to analyze the cause of fire accidents. Nothing in Rule 702 or *Daubert* requires more. We conclude that the trial court did not abuse its discretion in finding Boh's personal experience, training, method of observation, and deductive reasoning sufficiently reliable to constitute "scientifically valid" methodology. Thus, because testing is not necessary in all instances to establish reliability under *Daubert* and because the district court reasonably found that it was not required by the particular factual circumstances of this case, we conclude that the district court did not abuse its discretion in admitting the Bitlers' experts' testimony.

400 F.3d at 1235-36

The Circuit Court thus employed the wrong criteria in evaluating the reliability of the experts' opinions. When their opinions are properly viewed as non-scientific testimony, the methodology they used –reasoning to the best inference after applying established technical rules of computer science - fully complies with Rule 702, and State v. White, 382 S. Ct. 265, 676 S. E. 2d 684 (2009).

The Circuit Court also erroneously ruled that the experts impermissibly relied on the 50 alarm failures reported to CAS and the FDA because “the substantial similarity of the complaints to the alleged failure in this case never shown” (Order at 7). In so ruling, the Circuit Court simply accepted the unsupported statement of defense counsel in the draft order prepared for the Court and ignored the actual evidence. As previously noted, Plaintiffs’ software expert Frank R. Painter carefully examined each of these complaints and testified that they are “very, very similar in nature to the ones we have” (Frank R. Painter Dep. at 66, lines 11-13). In all 50 of the reports the monitor had the LED light lit, there was an alarm condition, and no audible alarm sounded (Frank R. Painter Dep. at 72, lines 15-20). The Court can confirm this opinion by examining the actual complaints which were submitted into evidence and are a part of the record. While the Defendant claimed that a few of the alarm failures were the result of a defect in the monitor that had been repaired following a recall, the defense presented no evidence rebutting Mr. Painter’s expert opinion that the reports were “very, very similar” to the instant case. In any event, at the summary judgment stage, the evidence must be viewed in the light most favorable to the Plaintiffs. Hence, the contrary interpretation of the 50

similar incidents offered by the defense simply creates a question of fact as to substantial similarity

B The affidavits are not excludible as sham affidavits

The Circuit Court excluded the post-deposition affidavits of Dr Daugherty and Dr Lively under Cothran v. Brown, 357 S. C. 210, 592 S. E. 2d 629 (2004) on grounds that the affidavits were “directly contradictory” to the opinions given by these experts in their deposition and that the other factors listed by the court justified their exclusion. The Circuit Court clearly abused its discretion in so ruling.

In Cochran, the court explained that sham affidavits – that is, affidavits that contain opinions that *contradict* prior deposition testimony – do not create a question of fact for summary judgment purposes in the following circumstances:

We find persuasive the reasoning of federal case law. Federal courts, including the Fourth Circuit, have held a court may disregard a subsequent affidavit as a “sham,” that is, as not creating an issue of fact for purposes of summary judgment, by submitting the subsequent affidavit to contradict that party’s own prior sworn statement.

In distinguishing between a sham affidavit and a correcting or clarifying affidavit, the following considerations provide guidance: (1) whether an explanation is offered for the statements that contradict prior sworn statements, (2) the importance to the litigation of the fact about which there is a contradiction, (3) whether the nonmovant had access to this fact prior to the previous sworn testimony, (4) the frequency and degree of variation between statements in the previous sworn testimony and statements made in the later affidavit concerning this fact, (5) whether the previous sworn testimony indicates the witness was confused at the time, (6) when, in relation to summary judgment, the

second affidavit is submitted

Cothran v Brown, 357 S C 210, 592 S E 2d 629 (2004) The Court need not evaluate the Cothran factors at all because any Cothran attack on the affidavits founder on the first element – there is no contradiction at all

In his deposition, Dr Daugherity stated that “the defect is the overall design ” (Daugherity Dep at 33, lines 19) Dr Daugherity testified that one particular design feature in the software – the unconditional branch instructions or “goto’ statements - proximately caused the alarm not to sound

Q Do you find any unconditional branch instructions in the AMI Plus code that caused the alarm not to sound, in your opinion?

A Yes, there are

(Daugherity Dep at 148, lines 12-13) He supplemented this testimony by explaining that, within the defective design, were “defective lines of code”³ that could not be located because the unstructured design of the code made it extremely difficult to locate the defective lines of code He explained that it might be possible to find these errors but that it would take six months to a year and require creation of a special software package

A Okay Mr Hastings asked me what it would take to find the line or lines of code which were incorrect and repair them And I did some thinking and analysis and gave him a response on that which was, you know, six months to a year and creation of a suite of software that would automatically test the most common paths in the code since the poor design makes testing all the paths in the code impossible, and that that procedure might be able to locate the line or lines in the code which need to be addressed If the code had been properly designed, then it would be much more possible to do that

(Daugherity Dep at 137, lines 4-15)

³ This is not to be confused with “coding errors – i e , a typo, transposed character, or misplaced character within a particular line of code Dr Daugherity has not been able to locate any coding error to-date (April 17, 2009 Affidavit of Walter Daugherity, para 3)

In his April 17, 2009 Affidavit, Dr Daugherity explained that, after a year of study, he had located the defective lines of the code and attached these as Exhibits 2 and 3 to the Affidavit. He reiterated that he had identified the “structure of the software as the defect” (April 17, 2009 Affidavit of Walter Daugherity, para. 3). He further explained that one cause of the defective structure in the software was the use of goto statements. If, as in this software, excessive numbers of goto statements are used, the resulting code is so unreliable as to be defective because it will cause the software to fail intermittently (April 17, 2009 Affidavit of Walter Daugherity, para. 9).

In his deposition, Mr. Daugherity testified that CAS should have used an alternative design – structured code – that was available at the date of manufacture of the product and would have eliminated the defect.

In a piece of software of this complexity, it is important to use good design principles in order to produce a program which meets the specifics, is testable, and is maintainable. This approach which is evidenced by the code under discussion is one where, instead of using best industry practice of the time of structured or object oriented programming, results in the lines of flow of control of execution being a rather tangled mess, like a bowl of spaghetti, which is why it has the name “spaghetti code.”

(Daugherity Dep. at 33, line 25, 34, lines 1-10). In his affidavit, Mr. Daugherity gave precise testimony as to the type of code that should have been used – “other adequate flow of control mechanism available such as if, if else, for while, do, and switch, that would have allowed the program to function in an organized linear manner. The proper use of these statements would have avoided creating spaghetti code and would have prevented intermittent failures.” (April 17, 2009 Affidavit of Walter Daugherity, para. 10). Thus, the alternative design testimony is consistent as well – the only difference is that the affidavit gives more detail as to the alternative design.

Finally, in his deposition, Mr Daugherity testified that the defective design proximately caused the alarm not to sound

Q The lawyer used the term "bug," and that the bug caused the alarm not to sound What is the defect in this programming?

A Well, we discussed that in several of my answers, that the defect is an overall defect of poor quality design, poor testability, and poor maintenance The term "bug" is usually used to refer to a specific line or lines of code which are incorrect and have to be replaced by the correct lines of codes

Q Did that defect, as you describe it, cause the monitor alarm not to sound?

MR DuBose Object to the form

A Most likely As I said --

Q (BY MR WINSLOW) More likely than not?

A More likely than the other possible causes that I considered

(Daugherity Dep at 167, lines 13-25, 168, lines 1-3)(emphasis added) In his April 17, 2009 affidavit, he reaffirmed that the poor design of the software proximately caused the failure of the alarm to sound (April 17, 2009 Affidavit of Walter Daugherity) Causation thus is consistent in both the deposition and affidavit

The Circuit Court also abused its discretion in excluding Dr William Lively's affidavit Dr Lively squarely testified that "the software is the problem ' (Lively Dep at 60, line 10) See also (Lively Dep at 60, line 10)("there was an error in the monitor that part of the design') He further explained that the goto statements should not have been used because they allow the signal to travel an erroneous pathway (Lively Dep at 144, lines 7-20) Dr Lively s March 11, 2009 affidavit makes the same statement -- "the unorganized structure of the code causes lines of code to not follow their intended path and reach their required destination ' (March 11, 2009 Affidavit of William Lively, para 12) Dr Lively s March 11, 2009 affidavit reiterates that the faulty software design caused the alarm problem He squarely opined that "Spaghetti Code is a direct cause for

the alarm to malfunction ’ (March 11, 2009 Affidavit of William Lively, para 12) Thus, the affidavits of William Lively are entirely consistent with the testimony given in his deposition on all material points The Circuit Court clearly abused its discretion in excluding the affidavit

C The Circuit Court abused its discretion in excluding Dr Wilkins’ opinions

The Circuit Court ruled that Dr Wilkins was not qualified to give an opinion on sudden infant death (SIDS) survivability because she is not “an expert on SIDS ’ SIDS, however, is simply a diagnosis of exclusion The real question is whether Dr Wilkins is qualified to give an opinion as to whether India would have survived had the alarm timely sounded The record shows that she is more than qualified to give such an opinion Rule 702, SCRE, permits an expert to qualify based on her knowledge, education, or experience Dr Wilkins actually qualifies on all three bases Dr Wilkins is a board certified pediatrician and specializes in neonatal perinatal medicine ⁴ (Dr Donna A Wilkins Dep at 7, line 25, 8, line 1) Dr Wilkins has been practicing medicine for 29 years She studied SIDs in medical school, in pediatric residency, and her neonatology practice She reads articles on SIDS from time to time and keeps up with the latest research She even subscribes to three journals that covers SIDS and has experience in neonatal care in the home setting (Dr Donna A Wilkins Dep at 8, line 21, 17, lines 2-6, 17, lines 20-25, 18, lines 16-25, 19, lines 17-23) Dr Wilkins, by virtue of her knowledge, education, and experience thus is eminently qualified to give an opinion on whether India would have survived had the alarm timely sounded

⁴ Neonatal perinatal medicine is the care of sick newborns in an intensive care unit (Dr Donna A Wilkins Dep at 8 lines 5 6)

The Circuit Court also ruled that “Dr Wilkins’ opinions on survivability of SIDS do not meet the State v. Council factors for reliability” (Order at 8). As the South Carolina Supreme Court has ruled, “the Council factors for scientific evidence serve no useful analytical purpose when evaluating nonscientific expert testimony.” State v. White, 382 S.C. 265, 676 S.E.2d 684 (2009). Dr. Wilkins arrived at her opinion by studying the monitor log printouts that showed each event where India’s breathing and heart fell outside of normal parameters, eliminated any other cause of the death based on the medical records, and then applied her extensive experience in working with newborns in similar situations. Because Dr. Wilkins offered routine medical testimony based on her knowledge, education, and experience rather than scientific testimony, her testimony could not properly be evaluated under State v. Council. Given her expertise in the field, no credible argument can be made that her opinion lacks sufficient reliability to pass Rule 702 scrutiny.

D. The experts’ opinions established defect, causation, and alternative design for summary judgment purposes.

When the experts’ opinions are considered in opposition to the summary judgment motion, the Plaintiffs clearly made a submissible case on the existence of a defect in the software, on the defect being the proximate cause of the monitor’s failure to sound when India stopped breathing, and on the availability of a feasible alternative design that would have prevented the accident.

Although the Circuit Court signed a draft order prepared by defense counsel that also purported to exclude the experts’ testimony under Rule 403, the Circuit Court gave no explanation as to how the crucial probative value of the opinions was outweighed by

their prejudicial effect. The Court of Appeals can properly disregard this conclusory finding, but in any event, there is nothing in any expert's opinion that would suggest an opinion on an improper basis. Prejudice for purposes of Rule 403 means "an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one." Old Chief v. United States, 519 U.S. 172, 180 (1997) (construing the identical federal rule). The summary judgment entered in favor of the Defendant must therefore be reversed.

II. THE SUMMARY JUDGMENT MUST BE REVERSED BECAUSE THE CIRCUMSTANTIAL EVIDENCE ALONE WAS SUFFICIENT TO ESTABLISH DEFECT AND CAUSATION

Assuming *arguendo* that the experts' specific defect opinions were properly excluded, the summary judgment must still be reversed because the Plaintiffs presented sufficient circumstantial evidence with respect to their statutory strict liability claim to reach the jury on the existence of a defect and causation. The Circuit Court did not address this argument in the Order granting summary judgment. In denying the Plaintiffs' Rule 59 motion, the Circuit Court rejected this because, *inter alia*, the argument purportedly had not been raised prior to the Rule 59 motion. In fact, however, the Plaintiffs raised the argument in the Plaintiffs' Opposition to Second Motion for Summary Judgment and reiterated it at the February 10, 2009 hearing (Transcript at 59). The Defendant's attorney even argued that South Carolina did not permit this in his November 9, 2009 Reply.

South Carolina law squarely supports this argument. In South Carolina, “[a]ny fact in issue may be proved by circumstantial evidence as well as direct evidence, and circumstantial evidence is just as good as direct evidence if it is equally as convincing to the trier of the facts.” St. Paul Fire and Marine Ins. Co. v. American Ins. Co., 251 S.C. 56, 59-60, 159 S.E.2d 921 (1968). Further, “[t]he law makes absolutely no distinction between the weight or value to be given to either direct or circumstantial evidence.” Moriarty v. Garden Sanctuary Church of God, 341 S.C. 320, 534 S.E.2d 672 (2000) (emphasis added), *quoting* State v. Needs, 333 S.C. 134, 156 n. 13, 508 N.E.2d 857 (1998).

The Plaintiffs thus are not required to show a specific defect in the CAS monitor but may present circumstantial evidence of defect and causation. Where a plaintiff sues under the strict liability in tort doctrine, the use of circumstantial evidence to prove defect and causation is uniformly accepted in all other states. The Restatement (Third) of Torts: Products Liability itself now provides that a plaintiff in a product liability action is not required to prove a specific defect in a product and may properly prove that the product was defective and unreasonably dangerous using circumstantial evidence.

It may be inferred that the harm sustained by the plaintiff was caused by a product defect existing at the time of sale or distribution, without proof of a specific defect when the incident that harmed the plaintiff

- (a) was of a kind that ordinarily occurs as a result of product defect, and
- (b) was not, in the particular case, solely the result of causes other than product defect existing at the time of sale or distribution.

Restatement (Third) of Torts: Product Liability § 3 (1998). Comment c further explains

No requirement that plaintiff prove what aspect of the product was defective. The inference of defect may be drawn under this Section without proof of the specific defect. Furthermore, quite apart from the question of what type of defect was involved, the plaintiff need not explain specifically what constituent part of the product failed.

Restatement (Third) of Torts Products Liability § 3 Comment c (1997)

While South Carolina state courts have not yet addressed this Restatement provision, that is irrelevant to the Circuit Court's error in this case because South Carolina law most certainly permits any fact in issue to be proven by circumstantial evidence as previously noted

Nor is the use of circumstantial evidence prohibited in this strict liability case because South Carolina does not recognize *res ipsa loquitur* by that name. First, *res ipsa loquitur* is a negligence concept, and not a strict liability one. The Plaintiffs *are not proceeding under negligence at all* but under strict liability. Second, the Plaintiffs have never argued *res ipsa loquitur* but simply that they can prove their case using circumstantial evidence.⁵ Third, the Plaintiffs have never argued that "the fact of an accident" alone is sufficient to reach the jury as it most certainly is not. But direct eyewitness evidence of a malfunction in the normal use of a product, *and* evidence ruling out all causes of the malfunction but a product defect is sufficient to reach the jury in all other states. That is precisely the evidence presented to the Circuit Court.

In this case, the Plaintiffs presented compelling circumstantial evidence of defect and causation. First, four eyewitnesses testified that the CAS monitor malfunctioned on the night of the accident in that it never made an audible alarm. Second, the parents also testified that the monitor had been properly set up and yet failed to sound when the infant

⁵ While this case does not involve *res ipsa loquitur* at all, it should be noted that South Carolina most certainly does allow negligence to be proved by circumstantial evidence. As even Dean Prosser has recognized, *res ipsa loquitur* "is accepted and applied by all of our courts, except in South Carolina, which still mysteriously rejects it by name, while applying as a practical matter under principles of circumstantial evidence." W. Prosser & P. Keeton, Prosser & Keeton on Torts, § at 244 (5th ed 1984).

stopped breathing. Third, the parents testified that the electric power had operated that night and, therefore, the alarm failure could not be blamed on a lack of power. Fourth, the Plaintiffs presented expert testimony that the CAS software contained a design defect that possibly could permit this very type of malfunction - Dr. Daugherty's observation that the software used unstructured spaghetti code in violation of industry standards and that this code was vulnerable to external interrupt events that would cause the alarm to fail to sound despite a signal from the electrodes of heart or breathing problem. The opinions of the other two defect expert corroborate Dr. Daugherty's opinion that the code structure permitted errors to occur.

Fifth, in both his deposition and his April 17, 2009 Affidavit, Mr. Daugherty provided an extensive explanation of precisely how he had eliminated all possible causes of the malfunction but a defect in the software and concluded in effect that the most probable explanation was that a defect in the software had proximately caused the monitor to fail to sound an alarm. Sixth, Mr. Daugherty provided a reliable opinion as to how this could happen notwithstanding that the monitor's report log did not show a malfunction on the night in question.

The various objections listed by the Court disappear when the case is viewed from the standpoint of circumstantial evidence. CAS made no showing that Dr. Daugherty's opinion that the code structure permitted errors to occur was not reliable - CAS contended only that his opinion that a specific error in the code existed and caused the malfunction was unreliable because he could not find the defective code at the time of his deposition, could not reproduce a malfunction by testing, and could point to no peer review studies,

or rate of error calculations to support his opinion ⁶These requirements, however, are imposed only when an expert offering scientific testimony opines as to a specific defect in his opinion. Similarly, when a plaintiff proceeds on circumstantial evidence, there is no requirement that a feasible alternative design be identified, although Mr. Daugherty in fact identified such a design – the use of structured code. Finally, there is certainly no inconsistency between the depositions and affidavits on the circumstantial evidence – the affidavits simply provide a fuller explanation of how the circumstantial evidence shows defect and causation.

The Circuit Court accordingly erred in ruling that the Plaintiffs could not use circumstantial evidence to prove their case. Because the circumstantial evidence alone establishes defect and causation, the summary judgment motion be denied.

CONCLUSION

For any and all of the reasons stated, the summary judgment must be reversed and the case remanded for trial.

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AUGUST 20, 2010

⁶ Dr. Daugherty presented compelling testimony that his opinion – that unstructured code was a defect that permitted this type of error to occur – reflected industry standards and cited to peer reviewed studies that supported this conclusion.

THE STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

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SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY

Court of Common Pleas

James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

VS

CAS MEDICAL SYSTEMS, INC

Respondent

INITIAL BRIEF OF RESPONDENT

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STATEMENT OF ISSUES ON APPEAL

1 Did the trial court abuse its discretion in excluding the expert testimony of William Lively, Walter Daugherity, and Donna Wilkins under Rule 702, SCRE, where the testimony of each was unreliable under established case law and, in the case of Wilkins, the expert also was not qualified?

2 Did the trial court properly exclude affidavits of the Graves' computer experts filed after CAS Medical Systems, Inc ("CAS"), moved for summary judgment and in contradiction to those experts' previous deposition testimony on issues critical to the case?

3 Did the trial court properly grant summary judgment given the Graves' inability to show proximate cause?

4 Did the trial court properly grant summary judgment where the Graves' computer experts failed to identify the computer code defect that caused the alleged injury and those experts failed to support their hypothesis of a computer code defect by testing or any other valid computer engineering method?

RESPONDENT'S STATEMENT OF THE CASE

CAS largely agrees with the Graves' statement of the case with the following additions and corrections

The Graves' amended complaint, dated July 3, 2006, alleges causes of action for strict liability, negligence, breach of implied warranty, and wrongful death. It appears that the Graves' appeal is limited to the adverse ruling as to their strict liability claim.

Experts Walter Daugherty ("Daugherty") and William Lively ("Lively") are computer experts. Expert Frank Painter ("Painter") is a biomedical engineer, but did give an opinion on the software used in the AMI Plus monitor. It is an issue on appeal whether the multiple affidavits filed by Daugherty and Lively after CAS moved for summary judgment on March 6, 2009, offer supplementation and clarification as represented by Appellants in their Statement of the Case or instead contradicted their earlier deposition testimony.

CAS filed its amended motion to exclude experts on May 21, 2009, and filed with it an affidavit by computer expert Roger S. Pressman ("Dr. Pressman"). In response to later affidavits by Daugherty dated April 17, 2009 and February 2, 2010, CAS filed supplemental affidavits of Dr. Pressman, dated September 1, 2009 and February 3, 2010. Judge James Williams held a hearing for all pending motions on February 2, 2010. The Graves filed motions to exclude Dr. Pressman's affidavit and strike him as an expert but those motions have not been argued or decided by the trial court.

On March 3, 2010, CAS filed the affidavit of Sudden Infant Death Syndrome ("SIDS") expert Dr. Carl E. Hunt, M.D. ("Dr. Hunt"). The Graves filed no opposition to that affidavit.

STATEMENT OF FACTS

I Introduction

India Graves died from SIDS during the early morning hours of Sunday, April 11, 2004. At the time of her death, India was attached to a CAS, AMI Plus (“AMI”) infant breathing and heart rate monitor. The Graves allege the monitor failed to alarm during India’s approximately one hour decline. The AMI was approved for marketing by the Food and Drug Administration (“FDA”), Painter Dep. 89-7-10, after a review of extensive documentation, including documentation of the AMI software development and testing. *See* Model 9700 Summary Software Verification Test Plan (listing the extensive number and the variety of tests of the software). The monitor worked properly before and after India’s death, and the Graves’ experts never triggered or recreated a malfunction in the device. The Graves thus allege that the monitor’s alarm function failed only coincident with the slow heart rate and slow breathing events that India experienced in the hour prior to her death.

The log of patient events and monitor activities kept by the monitor, essentially like an airplane’s “black box,” shows the events India experienced. An electronic recording in the monitor shows that a microphone in the monitor heard the alarm sound as it should have during India’s decline. Simply put, the machine’s own record indicates it was functioning properly at the time of India’s death.

The Graves’ causation expert, Dr. Donna Wilkins (“Dr. Wilkins”), opined that India would have survived had the alarm sounded and the parents stimulated her, but Dr. Wilkins admitted she was not an expert in SIDS, could cite no medical authority for her opinion that India would have revived, and based her opinion on the incorrect understanding that India had similar events in the past from which she was revived. CAS

filed affidavit testimony from Dr Carl Hunt (“Dr Hunt”), a long-time SIDS researcher, to the effect that there is no support for the notion that a SIDS death can be avoided by caregiver stimulation. The trial court found under Rule 702, SCRE, that Dr Wilkins was not qualified to give her opinion and that her opinion was unreliable.

Prior to CAS’s motion for summary judgment, the Graves’ computer experts Lively and Daugherty opined that the monitor failed to alarm due to a computer code writing error or “bug” in the code, but claimed poor code structure kept them from effectively testing to find the supposed error. They also stated that the structure did not cause the malfunction. After CAS moved for summary judgment based in part on the lack of proof of the device defect that caused the injury, these experts provided new opinions in the form of multiple affidavits where they reversed course and stated that the poor code structure *did* cause the failure.¹ None of these opinions were proved through testing.

CAS provided affidavit testimony from Dr Roger Pressman (“Dr Pressman”), recognized by Lively as an expert on the issues at hand. Dr Pressman disagreed with the bulk of Daugherty’s and Lively’s claims. The trial court struck Lively and Daugherty’s post-motion affidavits under *Cothran v Brown*, 357 S C 210, 592 S E 2d 629 (2004), and excluded their affidavit and deposition opinions as unreliable under Rule 702, SCRE.

¹ For ease of reference, CAS provides the following chronology as the opinions of the Graves’ computer experts Daugherty and Lively. Lively provided an affidavit of October 17, 2007 and was deposed on May 23, 2008. Daugherty was deposed on May 22, 2008. CAS filed its summary judgment motion on March 6, 2009 and its amended motion to exclude expert testimony on May 21, 2009. The motions were heard on February 2, 2010. Daugherty submitted affidavits dated April 17, 2009, February 2, 2010, and a letter dated March 1, 2010. Lively submitted additional affidavits dated March 11, 2009, March 13, 2009, and an undated supplement regarding spaghetti code.

Painter, the Graves' expert biomedical engineer, opined that the alarm failed due to a software error based on the Graves' claim that it failed and a questionable series of complaints supposedly related to the Graves' alleged alarm failure. Painter never looked for the error or reproduced the alleged failure through testing, and agreed that his "external inputs" failure theory was an unproven hypothesis. The court found Painter's opinion unreliable as well.

II Detailed Facts Surrounding India Graves' Death

India Graves was one of premature triplets. Premature infants have significant health challenges, including apnea of prematurity – breathing stoppage due to an underdeveloped brain. After spending roughly two months in the neonatal intensive care unit, each triplet was discharged on an AMI breathing and heart rate monitor. The AMI monitor is designed to alarm both audibly and with LED lights for "patient events," when the infant's heart rate or breathing do not reach certain set limits for longer than a set time period. The AMI also alarms for "equipment events," most commonly if the leads connecting the infant to the monitor become loose or disconnected. Loose lead alarms alert the caregiver that the infant is not being monitored, but are a constant headache for parents of increasingly mobile infants. Caregivers are trained to stimulate children having breathing or heart rate events and to use mouth-to-mouth resuscitation if needed.

Significant to this case are the monitor's internal microphone and the log of events that the monitor maintains in memory. The monitor records or "logs" patient events, equipment events, and alarm activity. The Graves correctly note that the log records if the microphone *does not* hear the alarm when it should, *i.e.*, during a patient or equipment event. The Graves overlook, however, that the system also logs when the monitor's internal microphone *does* hear the alarm. As testified by Scott Lambert, one of

the creators of the AMI alarm detection and logging, which is controlled by a separate software section or module than the alarm function, is the express purpose of the microphone. *See e.g.*, Lambert Dep 24 25–28 3, 36 17–38 8, 73 18–74 18, 75 19–22, 77 23–79 -23. An “alarm-heard” bar or indicator appears in an area of the patient events page of the printed version of the log called “Alarm Activity.” Its location on the page corresponds with the tracing or “waveforms” of the patient events that triggered the alarm. *Id.* at 67 16–71 16, Elliott Dep 70 12–73 15. See Monitor Events Log 4/1/04–4/12/04 waveform pages.

The monitor log of India’s final hours shows not only declining heart rate and breathing leading to her death, but also shows that the microphone detected the alarm sounding as it should have, and only as it should have, for each of these events. Lambert Dep 70 18–71 6. This system was specifically designed in part to help disprove erroneous alarm failure claims, which historically have been a problem in dealing with monitors. *Id.* at 29 21–33 2.

If the microphone does not hear the primary front alarm when it should, it triggers a backup alarm located at the rear of the monitor. If neither alarm is detected by the microphone when they should be, the monitor goes into failure mode, with all lights flashing and both alarms sounding. *Id.* at 24 25–25 24. The monitor is designed to log these instances as well. The log of India’s decline does not reflect any such occurrences, only that the alarm sounded properly.

Although Daylight Savings Time was in effect on April 11, 2004, the time entries on India’s monitor for the morning of her death were in Eastern Standard Time. Thus, the events leading to India’s death actually began with a “heart slow” shortly after

2 39 56 AM DST rather than at 1 39 56 as reflected on the log Monitor Events Log April 4/1/04-4/12/04 at All Study Logs p 2 The monitor log shows that it was powered down at 2 50 31 AM, or 3 50 31 AM DST *Id* The EMS run sheet shows that EMS received the call from 911 at 3 46 AM EMS arrived at 4 01 AM, and EMT Anita Kelly (“Kelly”) took India to the EMS truck almost immediately after going upstairs Kelly Dep 27 19–29 3 After powering down on April 11 at 3 50 31 AM DST, the AMI was not powered up again until Monday, April 12 at 10 41 AM DST, when Steve Elliott of Ashby Medical, the company that leased the monitors to the Graves, checked the monitor and successfully ran the start-up, self-test on the monitor Elliott Dep 27 12-23, Monitor Events Log April 4/1/04-4/12/04 at All Study Logs p 2

EMT Kelly had no reason to doubt the accuracy of the monitor log showing the monitor was powered down around 3 50 AM DST, about ten minutes before she got there Kelly Dep 115 7-13 Mrs Graves did not believe that she had turned the monitor off Both of the Graves testified that they saw it with the lights on but not audibly alarming Mr Graves testified that he examined it with one of the EMTs Kelly denied that she looked at it with him and said the other EMT remained in the truck after they brought India out from the house Kelly Dep 45 18–46 18, 43 22–44 1 Kelly could only say she should have looked at the monitor, *id* at 119 13-22, not whether she actually did examine it *Id* at 127 16-19, *see also id* at 67 15–68 2 None of the narrative entry on her run sheet is in quotes, so she was unable to say what she was told that morning or what she observed first hand *Id* at 110 1-19

India’s monitor has never failed to operate at any other time After successfully starting and testing the monitor the day after India died, Elliott removed the monitor from

the Graves' home and downloaded the log Elliott Dep 27 12–28 4 Elliott then sent the monitor to CAS, which also found it to be operating properly and returned it to Ashby India's monitor had been used by others before her and, after receiving it back from CAS, Ashby put the monitor back into service, where it remained and operated without problem until it was pulled from inventory as a result of this suit *Id* at 105 11–106 4 Elliot's company had approximately 100 AMI monitors *Id* at 101 14-16 He has had no other complaint of an alarm not sounding, *id* at 101 17–102 9, and has never heard of a situation where an AMI monitor failed to log an alarm failure *Id* at 94 8-23

The Graves testified that the monitor worked before the night of India's death T Graves Dep 147 10-18, K Graves Dep 73 3-12 When Mrs Graves powered the monitor up the night India died, it properly ran through its self-test *Id* at 143 25–144 11 She remembers hearing a low battery alarm that night and the log reflects also that someone responded to a loose lead alarm that evening by turning the monitor off and back on Monitor Events Log April 4/1/04-4/12/04 at All Study Logs p 2 After India's death, the Graves allowed their two surviving triplets to continue to be monitored by their CAS AMI monitors A Simmons Dep 69 19-22

Daughterity characterized as monitor failures several log entries of “front alarm not heard” and “rear alarm not heard” from the March log of India's monitor Lambert reviewed these events and noted that each was preceded by an active alarm and each was followed by the monitor being powered down, which had to be done by a caregiver From these facts and from the fact that the monitor successfully self-tested on each start-up, it was his opinion that one or both alarms, depending on the entry, were being muffled while the caregiver attended to India Lambert Dep 81 22–87 2 Daughterity

apparently did not take the events surrounding these entries into account, and claimed the alarm could not be muffled, but had to admit that, like his other opinions, he had not tested this claim Daugherty Dep 59 5–61 19, 63 16-24

Mrs Graves' sister, April Simmons, the only other adult in the house that night, Simmons Dep 44 13-17, was sleeping in a downstairs bedroom, *id* at 25 13-14, and woke up when she heard Mrs Graves screaming *Id* at 30 10-11 When she got upstairs, Mrs Graves had already unhooked India from the monitor, had placed India on the bed, and had begun CPR *Id* at 33 4-12, 35 12-24, 37 4-11, 38 12-18 Simmons could not see the monitor because it was under the bassinet, and she never looked at the monitor thereafter *Id* at 37 12–38 8 Simmons thought she would have heard the alarm had it sounded, *id* at 32 16-20, but, again, was sleeping and on another floor of the house Ms Simmons often helped her sister tend to the triplets In accordance with Mr Lambert's observation about the alarm not heard entries, Ms Simmons habitually turned the monitors off during loose lead alarms before re-establishing the connection between the child and the monitor *Id* at 65 14–66 6

III The Graves' Causation Expert

Dr Wilkins is a neonatal specialist in Muncie, Indiana She was the Graves' specially retained expert on proximate cause, offered as an expert in SIDS to testify that India likely would have been revived by her parents had the alarm sounded Despite her designation, Dr Wilkins denied that she was a SIDS expert Wilkins Dep 75 24-25

Dr Wilkins had some exposure to the subject of SIDS in medical school and medical journals she subscribes to occasionally included articles on the subject, but she has never researched SIDS in a clinic, in the laboratory, or through a literature study Dr Wilkins did no research on SIDS before offering her opinion in this case, nor did she

confer with any peer or expert on SIDS. *Id.* at 74:23–75:23. Dr. Wilkins did not identify a single study or article supporting her conclusion that an infant who otherwise would be a SIDS victim can be revived through stimulation or any other means. *Id.* at 74:19–22. Dr. Wilkins’ opinion is inconsistent with what she tells caregivers in her practice, which is that a monitor will not necessarily save their child, *id.* at 84:19–85:20, because “there’s no proof that a monitor is going to prevent a SIDS.” *Id.* at 84:13–14. Despite her opinion here, she knew that no one has connected apparent near death events (“ALTEs”) in children to SIDS, *id.* at 73:12–74:18, so there is no medical evidence that a SIDS death can be avoided by intervention. Finally, Dr. Wilkins’ opinion was based on the erroneous belief that India had been revived from prior events. In fact, India had experienced no significant prior events, as testified by a pediatric pulmonologist who interpreted India’s logs in consultation with India’s pediatrician. Dr. Jane Gwinn Dep. 16:5–18, 17:2–14, 23:22–26:5.

In response to Dr. Gwinn’s testimony, CAS filed the affidavit of Dr. Hunt, a long-time SIDS researcher, who confirmed that there is no medical research supporting the idea that India more likely than not would have survived her SIDS event under any circumstances. Hunt Aff. ¶¶ 6–12.

Judge Williams excluded Dr. Wilkins’ opinions based both on lack of qualifications and lack of reliability.

IV The Graves’ Computer Experts

The Graves’ two computer experts, Daugherty and Lively, worked together in an attempt to find a defect in the code that caused the monitor alarm not to sound. CAS deposed them in May of 2008 after being assured by counsel that they had reached their full conclusions in the case.

At that time, Lively and Daugherty testified that although they considered the “defect” in the monitor to be disorganized computer code, which they sometimes called “spaghetti code,” they said that this was not the problem which caused the alleged malfunction, but only made the problem more difficult to find and repair. Daugherty Dep. 168 18–170 22, Lively Dep. 60 11-18. They further testified that the problem causing the malfunction was a portion of code that had been miswritten, a computer “bug” that they had not located. Daugherty Dep. 168 18–170 22, Lively Dep. 60 19–61 18.

When asked in his deposition about a type of instruction in the code known as unconditional branch instructions or “GoTo” statements, Daugherty said that they were not the cause of the alarm failure but made “it harder to test and maintain and to find and fix bugs.”² Daugherty Dep. 150 5-20. Daugherty hypothesized that a particular input to the code triggered a malfunction but phrased this only as a possibility, not a probability. *See, e.g., id.* at 36 9–37 4.

These experts and Painter all tried to make an exemplar monitor malfunction but were unable to do so. *Id.* at 94 2-23, Painter Dep. 30 1-12. They made no attempt to test the code itself to prove their hypothesis that there was a computer coding error that could cause the alarm to not sound. The experts criticized the extensive testing performed on the software before FDA approval but gave no support for their criticism. A forensic computer company, Software CPR, also extensively examined the code, which it found to

² Understanding how GoTo statements work is not required to understand the expert claims in this case. In general, however, GoTo statements are instruction in the code that cause a signal passing through the code to branch to another portion of the code. They are also referred to as “unconditional branch instructions.” Daugherty Dep. 147 9-21.

be well organized, and tested it for many hours without a failure Software CPR AMI and AMI Plus Technical Assessment Report

The experts concluded that the AMI software has a defect based on their opinion of the general code structure, allegedly similar complaints³, and the Graves' claim that it failed

They thus did not make a determination that India's alarm failed, they began their analysis with that assumption They have not published or sought peer review for their method of determining a software error through anecdotal evidence There is no literature that supports this approach Their opinion of a code error is not supported by testing, nor were the experts able to calculate rates of error for their opinions These experts ignored parts of the record that did not fit their theory, such as the log kept by the monitor Additionally, although the reporting of a complaint to the FDA does not signify its validity, Painter Dep 100 3-101 4, Daugherty in forming his opinion relied on the complaints as valid, Daugherty Dep 40 7-10, and Lively did not know whether they were valid or not, although he conceded that was important for him to know Lively Dep 110 2-10 Neither the Graves nor their experts made any effort to show that the number of complaints was statistically significant with respect to the number of monitors in use or how the complaints as to the AMI compared to complaints relating to other brands of monitors The Graves made no showing that the complaints were substantially similar to the evidence in this case, nor did they show that the experts reasonably relied on them

³ These complaints are not in the record The Graves attached as Exhibit 8 to their October 23, 2009, memorandum a series of complaints ("Maude Reports") most of which are unrelated static electricity complaints Elliott Dep 108 10-109 8, Daugherty Dep 129 11-16 There is a 2007 complaint of a faulty alarm but as is shown on that document, the problem turned out to be dirty alarm speakers See Maude Reports

Based on Daugherty's and Lively's testimony that the cause of the alleged malfunction was an error in the code that they could not identify, and the lack of qualified reliable medical testimony as to causation, CAS moved for summary judgment on March 6, 2009. On March 12, 2009, the Graves submitted a "supplemental" affidavit of Lively, the first of five post-motion affidavits from Lively and Daugherty. The essence of these affidavits was that, contrary to their prior testimony, the experts' opinion now was that, instead of a miswritten line of code being the problem, the structure of the code itself, and the use of GoTo statements in particular, caused the failure. In addition, Daugherty reneged on his earlier testimony that he could not say the logging function had malfunctioned, opining in his April 17, 2009, affidavit, again without any supporting testing, that it was "certain that the logs are not reliable." Daugherty Aff ¶ 24.

V Frank Painter

Frank Painter, a biomedical engineer, examined the AMI monitor but did not critically examine the code or look for a defect in it. Painter Dep. 30 21-25, 28 10-13. Painter believed that a software failure in the monitor was induced by a combination of inputs to the monitor, *id.* at 55 22-56 3, but had no idea what those inputs might be. *See, e.g., id.* at 57 1-10, 59 2-23. Painter agreed that his theory of external inputs causing the monitor to fail was no more than an unproven hypothetical. *Id.* at 63 20-64 9.

Painter could never make the monitor malfunction, *id.* at 30 1-12, and thus any testing he performed failed to support his hypothesis. Painter instead based his opinion of a software failure on the same unproven complaints about the monitor's operation as discussed above, and the Graves' claim that it failed.⁴ In creating his complaint

⁴ These complaints were reported to the FDA by CAS or its predecessor, Mallinckrodt, as required by federal regulation. FDA has taken no action as a result of these complaints.

collection, Painter lumped together a number of different types of alleged failures without regard for whether they could be causally related, his approach being to include all complaints unless proven to not be software claims. *See e.g., id.* at 211 5-8. Even so, Painter admitted that at least some of the complaints he and the other experts relied on were more likely hardware problems and for others he could not tell the most likely cause. *See e.g., id.* at 208 4–211 8. Again, these complaints are not in the record on appeal.

Painter claimed he had identified a failure trend from his collection of undifferentiated complaints, but never addressed the significance of the fact that the last complaint he identified was early in 2005, *id.* at 176 21-23, more than three years before his July 10, 2008, deposition and more than five years before the Graves’ final briefing and affidavits to the trial court.⁵ Since then the only alarm complaint in the record proved to be from a dirty alarm speaker. *See* Maude Reports.

Painter had no idea how many AMI monitors were in the market, *id.* at 176 24–177 2, and so could not calculate a rate of complaint. He did not know the percentage of complaints on the AMI compared with other brands of monitors, *id.* at 177 3-10. He also did not know the rate of error in his opinion, *id.* at 178 14-18, because “this is mostly just my understanding based on my particular background and experience as an engineer.” *Id.* at 178 14–179 3. Painter has published no peer reviewed or other article of the method of analysis he used here and admitted that his testimony found no support in any learned treatise. *Id.* at 179 4-7.

⁵ Painter also claimed that there had to be additional complaints for several years, *id.* at 175 22–176 23, but the Graves never produced any

Because he did not analyze the software, Painter was not qualified to describe the detailed operation of it, and in fact had a limited understanding of the monitor. Among other errors, Painter suggested in his 2007 affidavit and in his deposition that the same software module that triggers the alarm controls the microphone and log. *See e.g.*, Painter Aff ¶ 17 (actual affidavit paragraphs are unnumbered). The logging system is actually controlled by a different software module. Lambert Dep. 79:11-23. Painter did not understand prior to his deposition the critical fact that the monitor logs showed that the microphone has detected the audible alarms. Painter Dep. 164:19-165:5. Despite educating himself about this during the deposition and despite having only a hypothetical opinion as to a defect in the software, Painter simply chose to believe the Graves that the alarm did not sound over the monitor log showing that it did. *Id.* at 164:1-18, 166:3-15.

The court excluded the Painter opinions under Rule 702, SCRE.

VI Dr. Roger Pressman

CAS filed the affidavits of Dr. Pressman in response to the Graves' computer opinions. Dr. Pressman is a well-known computer engineering educator and author. Pressman CV. Indeed, Lively acknowledged that he relied on Dr. Pressman's text to inform his opinions for this case, Lively Dep. 20:19-21:3, 22:21-23:19, and in teaching code testing. *Id.* at 23:25-25:20. Among other things, Pressman pointed out that the Graves' computer experts had by their methodology constructed a hypothesis but had not tested to prove it, as is required in software engineering. Pressman Aff ¶¶ 4:0-7:0, 14:0. Daugherty and Lively offered no rebutting support for their discredited methodology. Pressman also described the "decades old debate within the computer science and software engineering communities" regarding the use of GoTo statements and explained that in assembler language (also called "assembly," the language in the AMI monitor),

GoTo statements are used frequently, and that avoiding GoTo statements may create rather than avoid errors. This is consistent with Daugherty's deposition testimony but contrary to Daugherty's later affidavit opinions.

After allowing the Graves an extensive opportunity to respond to CAS's motions to strike the expert affidavits and for summary judgment, the trial court granted CAS's motion to strike the later filed affidavits of Daugherty and Lively as contradicting critical sworn testimony to avoid summary judgment under *Cothran v Brown*, 357 S C 210, 592 S E 2d 629 (2004). The trial court also found that either version of the computer experts' opinions as well as Wilkins' and Painter's opinions did not meet the reliability factors enunciated in *State v Council*, 335 S C 1, 515 S E 2d 508 (2004), and granted summary judgment to CAS based on the Graves' failure to present a question of fact for trial as to either the existence of a defect in the AMI monitor or proximate cause.

ARGUMENT

I Summary of Argument

The trial court properly granted summary judgment because the Graves failed to prove proximate cause and failed to prove a defect. As our Supreme Court held recently in *Watson v Ford Motor Co*, Op No 27686 (re-filed Sept 13, 2010), a defect must be proven, and cannot be shown by circumstantial evidence.

The Graves also failed to demonstrate proximate cause, *i e*, that some defect in the monitor was the cause of India Graves' SIDS death. The Graves' causation witness, Dr. Wilkins, was by her own admission not an expert on SIDS, and her testimony that India Graves would have survived if stimulated was properly found unreliable by the trial court under Rule 702, SCRE. Her opinion has not been peer-reviewed or otherwise published, there is no research supporting the opinion, the opinion was based on an

incorrect medical history, and the opinion is contradicted by Dr. Wilkins' statements to her own patients' caregivers. Arguments by the Graves that Dr. Wilkins' testimony was presented as "differential diagnosis" are raised for the first time in this appeal and not supported by the record. In contrast to the Graves' causation witness, the expert witness for CAS testified by affidavit that there is no evidence that any home monitoring system can prevent sudden infant death, and even continuous hospital surveillance may be insufficient to prevent death due to SIDS. Because the Graves failed to show causation, the trial court appropriately awarded summary judgment to CAS.

The Graves also failed to establish a defect. The testimony of computer experts Drs. Lively and Daugherty was scientific in nature, as admitted by the Graves in the trial court, and therefore subject to the reliability factors enunciated in *State v. Council*. The trial court properly excluded the testimony under the *Council* factors because the experts cited no supporting authority for their methodology of reliance on anecdotal evidence rather than testing, the experts lacked authoritative support for their assertions, and the experts lacked objectivity. While the Graves argue that the opinions of Drs. Lively and Daugherty are the result of "reasoning to the best inference," this theory is untenable and is raised for the first time on this appeal at any rate.

The testimony of the Graves' other defect expert, biomedical engineer Frank Painter, was also properly excluded by the trial court as lacking an objective basis or other indicia of reliability. Finally, the Court correctly excluded affidavits filed by Drs. Lively and Daugherty after CAS moved for summary judgment below. The later affidavit testimony of the computer experts materially changed the witnesses' testimony, by purporting to identify a deficiency when earlier deposition testimony by the experts

made clear that they had been unable to find the alleged defect. The experts' post-motion opinions were properly excluded by the trial court under *Cothran v. Brown*.

The Graves failed to meet their burden of showing that a defect existed in the monitor, and failed to show that, even if a defect had existed, the defect would have been a proximate cause of India Graves' death, and the trial court properly granted summary judgment in favor of CAS.

II The trial court properly excluded the Graves' experts, given the unreliability of their opinions and given Dr. Wilkins' lack of SIDS qualifications

A Standard of Review

The qualification of a witness as an expert is a matter largely within the trial court's discretion and will not be reversed absent an abuse of that discretion. *Gooding v. St. Francis Xavier Hosp.*, 326 S.C. 248, 252, 487 S.E.2d 596, 598 (1997). "An abuse of discretion occurs when the trial court's decision is based upon an error of law or upon factual findings that are without evidentiary support." *Fields v. J. Haynes Waters Builders, Inc.*, 376 S.C. 545, 555, 658 S.E.2d 80, 85-86 (2008). Here, the trial court carefully considered the summary judgment record before it and reached a well-reasoned result that is supported by the record and South Carolina law.

B The trial court recognized its role as gatekeeper under Rule 702, SCRE, in disallowing the Graves' experts' opinions

The Rule 702, SCRE, issues in this case are governed by the recent case of *Watson v. Ford Motor Co.*, Op. No. 26786 (re-filed Sept. 13, 2010), and the several cases leading up to it, including *State v. Council*. In *State v. Council*, the court recognized the gatekeeper role of the trial judge in determining the reliability of scientific expert testimony before allowing the jury to hear it. That court found that DNA evidence used for identification was reliable based on application of "several factors, including" the

following four factors

(1) the publications and peer review of the technique, (2) prior application of the method to the type of evidence involved in the case, (3) the quality control procedures used to ensure reliability, and (4) the consistency of the method with recognized scientific laws and procedures

Id. at 19, 515 S E 2d at 517 (citing *State v Ford*, 301 S C 485, 392 S E 2d 781 (1990))

In *State v White*, 382 S C 265, 676 S E 2d 684 (2009), the court made clear that the trial court's gatekeeping role extended to testimony of technical and experiential experts as well as to opinions of scientific experts. Finally, in *Watson v Ford*,⁶ the court made clear that expert opinion is required in cases "where a factual issue must be resolved with scientific, technical or any specialized knowledge."

The *Watson* court's application of the *Council* "scientific" factors to an engineering expert, Anderson, is instructive here. Anderson's opinion was that electromagnetic interference ("EMI") had caused an automobile cruise control to malfunction, resulting in a wreck. The trial court had allowed his testimony after determining that he was qualified as an expert but without examining the reliability of his opinions. On appeal, the court rejected the idea that Anderson's opinions were technical rather than scientific so as not to be subject to the same scrutiny as scientific opinions and proceeded to apply the *Council* factors to determine reliability. In so doing, the court found that his opinions "were based on scientific principles and theories," *Watson v Ford* n 3, but may have been mindful as well of the admonition in *Kumho Tire Co v Carmichael* 526 U S 137 (1999), regarding expert testimony based on scientific as opposed to technical, or other specialized knowledge.

⁶ Although *Watson* is not cited in their Appellants' Brief, the Graves' counsel were also counsel in *Watson* and made essentially the same arguments there that they make here.

There is no clear line that divides the one from the others. Disciplines such as engineering rest upon scientific knowledge. Pure scientific theory itself may depend for its development upon observation and properly engineered machinery. And conceptual efforts to distinguish the two are unlikely to produce clear legal lines capable of application in particular cases.

526 U.S. at 148

The court found that the substance of Anderson's opinions was not reliable because his opinions had not been peer reviewed, he had not published papers on his theories, he could not determine exactly where the EMI originated or what part of the system it affected, he had not tested his theory and admitted it was not possible to do so, he could not replicate the alleged failure and, although not dispositive under South Carolina law, his theory had been rejected by the scientific community. The essence of the court's ruling was that a hypothesis without evidence tending to prove it renders the opinion unreliable.

The trial court in this case properly applied *Watson v. Ford* and its predecessor cases to find that the Graves' expert opinions were not reliable. The Graves did not meet their burden of demonstrating the reliability of their experts' opinions.

C Dr. Wilkins' Opinions Were Neither Qualified Nor Reliable

The Graves bore the burden of proving that the alleged defect was the proximate cause of India's death. *Small v. Pioneer Mach.*, 329 S.C. 448, 494 S.E.2d 835, 842 (Ct. App. 1997) (under any products liability theory of recovery, plaintiff must establish a product defect was proximate cause of injury sustained). The survivability of what would otherwise be a SIDS death unquestionably is a medical issue "beyond the ordinary knowledge of the jury, thus requiring an expert to explain the matter to the jury." *Watson v. Ford*. The Graves offered Dr. Wilkins as their only evidence that India would have

survived had the alarm sounded, assuming it did not

1 The Graves waived the argument raised in support of the reliability of Wilkins' opinion

The Graves make only one argument as to the reliability of Dr Wilkins' opinion – that it is a reliable differential diagnosis. This argument was neither raised to nor ruled on by the trial court. The Graves thus cannot raise this argument on appeal and it should not be considered by this court. *I On Inc v Town of Mt Pleasant*, 338 S C 406, 422, 526 S E 2d 716, 724 (2000)

2 Dr Wilkins is not a SIDS expert and her opinion was without support beyond her own say-so

Dr Wilkins admitted that she is not an expert in SIDS. Wilkins Dep 75 24-25. Her experience with SIDS is limited to coverage in a course in medical school and some reading in professional journals. Her opinion that India's death could have been avoided by early intervention is unsupported by any medical authority, and she made no effort to determine if it was supported before voicing her opinion or after CAS challenged her opinion before the trial court. In short, her opinion was supported only by her own say-so.

Although not reflected in its order, the trial court also had before it uncontradicted evidence that Dr Wilkins' opinion had not been published or peer-reviewed, and that her opinion was in fact contrary to accepted medical understanding as shown by the affidavit of Dr Hunt, a SIDS researcher. Dr Hunt confirmed what Dr Wilkins tells her patients' caregivers, that "[t]here is no medical evidence that any home infant monitor on the market can prevent sudden unexpected death in infants." Hunt Aff ¶ 7, Wilkins Dep 74 19-22. Dr Hunt also stated that the data suggests that infants destined to die of SIDS will die "regardless of the timeliness of resuscitation, in other words that SIDS infants are

non-resuscitatable ” *Id* at ¶ 9 He also pointed out the correlation between this and “reports of infants who have died of SIDS while under continuous surveillance in inpatient hospital settings ” *Id* Dr Hunt also provided follow-up on several older SIDS articles (the newest dating from 1993) that the Graves filed with the court As noted by Dr Hunt, it had been hoped that the use of home monitors would help avoid SIDS deaths but “[t]he clear consensus then [when the articles were published] was that there is no evidence that home monitors save lives (prevent SIDS), and there has been no subsequent evidence to the contrary ” *Id* at ¶¶ 10-11 Finally, Dr Hunt pointed out that no study has confirmed the failure of any home monitor alarm *Id* at ¶ 12

The trial court also had before it substantial evidence that Dr Wilkins’ litigation opinion was contrary to views she expressed in her medical practice as to the survivability of a true SIDS event as opposed to surviving an ALTE, which has not been medically linked to SIDS Finally, the court had before it uncontradicted evidence that Dr Wilkins misunderstood India’s medical history when basing her opinion on the understanding that India had survived prior significant events In fact, India had experienced no such prior events

In short, beyond her admitted lack of qualifications, Dr Wilkins’ testimony is without any medical basis, is contrary to current medical understanding, and relied on an incorrect patient history It has no indicia of reliability and was properly excluded by the trial court

3 The trial court applied the proper standards in reviewing and ultimately excluding Dr Wilkins’ opinions

Should the court find that the Graves have not waived their argument raised in support of Dr Wilkins’ testimony, the argument also fails on its merits The Graves

argue without any support that medicine is not science and that the *Council* factors thus cannot be used to test the reliability of her testimony. They offer no definition of “science” nor do they provide any explanation of why Dr. Wilkins’ testimony is not scientific. Moreover, they argued to the trial court that Dr. Wilkins “understands the *medical science* necessary to make an opinion in this case.” Brief in Support of Experts n 1, 3/1/10. Webster’s definition of science includes “knowledge possessed or attained through study or practice,” or “knowledge obtained and tested through use of the scientific method.” Webster’s Third New International Dictionary, 2032 (Philip Babcock Gove et al. eds 1993). Beyond this apt description of medical research, the very case on which the Graves rely for their argument that differential diagnosis is a valid methodology describes it as “a standard *scientific technique* of identifying the cause of a medical problem by eliminating the likely causes until the most probable one is isolated.” *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 262 (4th Cir. 1999) (emphasis added).

The gatekeeping role applies to all expert testimony, scientific or technical. *State v. White*, 382 S.Ct. 265, 270, 676 S.E.2d 684, 686 (2009) (citing *Kuhmo Tire*). Whether one considers the testimony scientific or not, the *Council* factors provide a useful framework for analyzing Dr. Wilkins’ testimony and the Graves fail to explain why they should not be applied here.

The Graves’ differential diagnosis argument also inaccurately characterizes Wilkins’ opinion as a diagnosis. Dr. Wilkins herself recognized she did not make a diagnosis. Wilkins Dep. 88:20–89:15.

A differential diagnosis is not a guess or a choosing of sides. The cases speak in terms of a “*reliable* differential diagnosis, one where, among other things, the expert

“must provide reasons for rejecting alternative hypotheses using scientific methods and procedures” and the elimination of those hypotheses must be founded on more than “subjective beliefs or unsupported speculation” *Clausen v M/V New Clarisa*, 339 F 3d 1049, 1058 (9th Cir 2003) (quoting *Clair v Burlington N R R Co*, 29 F 3d 499, 502 (9th Cir 1994)) To the extent one can apply a differential diagnosis framework to Dr Wilkins’ opinion, one finds no indicia of reliability She employed no scientific method or procedure and gave no valid basis for rejecting the hypothesis that India would have died in any event She pointed to no research, nor is there anything in Dr Wilkins’ own experience, training or education to support her opinion Moreover, the bases of her opinion were, as shown, medically and factually wrong, and inconsistent with her deposition testimony that there is no medical science linking ALTEs to SIDS

Dr Wilkins’ opinion was neither a diagnosis nor was it reliable Her opinion is classic *ipse dixit* and was properly excluded by the trial court

D The trial court properly excluded Daugherty’s and Lively’s opinions

1 The Graves abandoned the argument that Daugherty’s and Lively’s opinions were not scientific

The Graves at one point questioned whether the computer expert opinions were scientific, Plaintiffs Supplemental Memorandum, October 23, 2009, but later abandoned the issue Indeed, the Graves’ appeal argument that the trial court erred in applying *State v Council* to the testimony of their computer experts because their testimony was not scientific is directly contrary to what they told the trial court at the hearing on February 4, 2010

But [computer code] literally, Judge, is a science and a language that I’m not adequate to explain And so, I think we have, judge, a battle of scientific experts that I know aren’t talking over your head, but Judge, they are talking way over my head

Transcript of Hearing 2/4/10 at 38 3-5, 41 3-6) (emphasis added) Further, in their final memorandum to the court, dated March 1, 2010, the Graves argued, “A careful reading of the deposition testimony and subsequent affidavits shows the Defendant is not only wrong, but clearly *does not understand the science* involved in these complex facts” Brief Supporting the Testimony of the Plaintiff’s Experts at 1-2 (emphasis added) Thus, when the trial court issued its order this issue was no longer before it, and there are no findings on it The Graves did not raise this issue in their Rule 59(e), SCRCF motion, and it is therefore not preserved for review by this Court *I On Inc v Town of Mt Pleasant*, 338 S C 406, 422, 526 S E 2d 716, 724 (2000)

The argument that the Graves’ computer expert opinions should have been examined by the trial court as opinions the result of “reasoning to the best inference” is also new and was not ruled on by the trial court In their October 23, 2009, memorandum, where they argued that the opinions were not scientific for purposes of *State v Council* and *State v White*, the Graves offered the trial court no framework by which to analyze the expert opinions They refer in that memorandum to their July 15, 2009, memorandum opposing exclusion of the experts A review of that memorandum reveals other arguments but not the one they advance here This argument was neither raised nor ruled on below and is thus improperly raised for the first time here

2 The trial court was correct in applying the *Council* factors

The *State v Council* inquiries fit the opinions offered to the court here and were properly applied Not only did the Graves tell the trial court the computer issues were scientific, but the arguments supporting the application of the *Council* factors in *Watson* to Dr Wilkins apply with equal force to Daugherty’s and Lively’s testimony Moreover,

the court had before it Dr. Pressman's uncontradicted opinion that the scientific method of testing to prove a hypothesis is required in computer engineering, thus rendering appropriate at least that portion of the *Council* inquiry. Pressman Aff ¶¶ 40–70, 130–140 (5/20/09). The Graves offer no cogent reason why the *Council* standards should not have been applied by the trial court.

3 Daugherty's and Lively's opinions were properly excluded under *Council*

The Graves do not argue that either the deposition or the affidavit versions of their computer expert opinions can survive application of the *Council* factors and thus have waived that issue as well. A brief review of the application of those factors shows why the opinions fail that inquiry.

The experts' methodology of relying on unproven anecdotal complaints rather than directed testing of the suspect code paths has not been published or peer reviewed, has not been shown to have been applied before to computer software, and has significant quality control issues. Among these problems is that none of the complaints, the method, or the conclusions have been tested. Further, these experts considered part, rather than all, of the evidence, and their opinions are unsupported by the literature in their field. Their opinions that the code is *per se* unreliable due to use of GoTo statements and its alleged spaghetti code structure is likewise unpublished, not peer reviewed, not shown to have been applied before, is subject to similar quality control issues, and, again, has no support in the literature, which states for example that although GoTo statements can cause issues, properly used they can make software perform better. *See, e.g., C by Discovery* excerpt (noting that GoTo's use in "C" language (a different language than Assembly, the language used in the monitor) *can* but will not always undermine the code

and recognizing the benefits of using GoTo statements in “C” language in certain instances *Id.* at 115) See also Pressman Aff ¶¶ 9 0–12 0 (5/20/09)

In analyzing the reliability of an expert’s testimony, the “key question” is “whether it can be (and has been) tested” *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579, 593 (1993). South Carolina cases are in accord. See e.g., *Watson v. Ford Motor Co.* Like the expert in *Watson*, Daugherty and Lively contend that the code could not be tested to find the problem they claim exists. In fact, no code of any complexity can be exhaustively tested, see e.g., General Principles of Software Validation Final Guidance p. 11, but testing to find a specific problem is a different matter. Dr. Pressman’s affidavit points out that a test directed to the alleged defect should be fairly easy to construct. Pressman Aff ¶ 11 0. No expert identified by the Graves cited any authority that directed testing would not work. See Pressman Second Supplemental Aff ¶¶ 5 0–9 0 (2/3/10). Indeed, in his deposition in the *Smith* case, Lively said he could test the software for the defect in the same manner Pressman advocated. Compare Lively Dep. (*Smith*) 50:14–52:4 with Pressman Aff. (9/1/09) ¶ 9 0 (both advocating black box and white box testing).

4 The experts’ opinions are also untenable under a best inference review

To reliably reason to the best inference, an expert

must provide objective reasons for eliminating alternative causes. Furthermore, the inference to the best explanation must first be in the range of possible causes; there must be some independent evidence that the cause identified is of the type that could have been the cause. But more than mere possibility, an inference to the best explanation for the cause of an accident must eliminate other possible sources as highly improbable, and must demonstrate that the cause identified is highly probable.

Butler v. AO Smith Corp., 400 F.3d 1227, 1237–38 (10th Cir. 2004), see also *Clausen v. M/V New Carissa*, 339 F.3d 1049, 1058 (9th Cir. 2003) (“The expert must provide reasons

for rejecting alternative hypotheses ‘using scientific methods and procedures’ and the elimination of those hypotheses must be founded on more than ‘subjective beliefs or unsupported speculation ’”) (quoting *Claar v Burlington N R R Co* , 29 F 3d 499, 502 (9th Cir 1994)) The Graves’ experts’ analyses do not meet this requirement Their reasons for accepting the Graves’ claims over the monitor log were not objective An expert’s job is to prove a failure, not start with the assumption of a failure and use that as a basis for his opinion, and such an opinion is excludable as unhelpful to the jury under Rule 702, SCRE See e g *Clark v Takata Corp* , 192 F 3d 750, 757 (7th Cir 1999) (“Simply put, an expert does not assist the trier of fact if he starts his analysis based on the assumption the product failed (the very question he was called upon to resolve) ’”) Such an opinion should also be excluded as invading the province of the jury *State v Morgan*, 326 S C 503, 485 S E 2d 112 (Ct App 1997) (reversed in part by *State v White*, 382 S C 265, 273, 676 S E 2d 684, 688 (2009) (Assessment of witness credibility is for the trier of fact, not for experts)

These experts also formed their conclusions without understanding the log showed that the alarm was actually heard, and refused to re-assess their opinions after learning this Instead Daugherity changed his opinion of the log to suit their prior conclusion, and Painter simply chose to believe the Graves over the log Moreover, the experts had no basis on which to rule out misreporting by the Graves The experts’ reliance on a group of other, unverified complaints about AMI monitors (making the similarity of them to the Graves’ alleged failure unclear at best) was likewise not objective Daugherity and Lively incorrectly thought or ignored whether the complaints were proven failures Furthermore, the court did not find the complaints to be deserving

of reliance under Rule 703, SCRE *Jamison v Morris*, 385 S C 215, 228 684 S E 2d 168, 175 (2009) Finally, the experts conducted their analyses based on partial information and the misunderstanding that the EMT saw the monitor lighted but not alarming

The experts' willingness to impugn the software without understanding the product, without meeting the software engineering standard of testing, and in the face of extensive testing contradicting their opinions further underscores the unreliability of their reasoning to an inference as urged by the Graves Finally, as argued elsewhere, the opinions were rendered subjective and unreliable by the experts' selective use of facts rather than the entire record to arrive at their opinions

The Graves argue that, under *Butler* testing was not required, but in that case an explosion confirmed that a failure occurred and the alleged failure mechanism was a well-known problem Testing thus was not required to prove the underlying failure or potential cause In the instant case, however, the fact of a failure is far from certain, nor is there a recognized mode of failure if one assumes the alarm failed The *Butler* court likely would *require* that the Graves' computer expert opinions be proved by testing "When an expert proposes a theory that modifies otherwise well-established knowledge we would expect the importance of testing as a factor in determining reliability to be at its highest " *Butler* at 1235

With no indicia of reliability, the trial court properly excluded Daugherty's and Lively's opinions

E The trial court properly excluded Painter's testimony

CAS did not question the general qualifications of the Graves' expert biomedical engineer, Frank Painter Painter offered two basic opinions in this case (1) that the

monitor failed on the night India died, and (2) that the monitor software is defective in some manner

1 Painter's opinion that there was a failure lacks any objective basis

Painter admitted at deposition that his opinion that the monitor failed on April 11, 2004, was based solely on the Graves' testimony that it failed Painter Dep 239 15-17 He came to this opinion before being aware that the monitor recorded the alarm sounding *Id* at 164 19-165 5 When he learned this during his deposition, he acknowledged that either the log was wrong or the Graves were wrong, *id* at 164 1-15, but simply chose to believe the Graves over the monitor log *Id* at 164 16-165 12 This subjective opinion meets no recognized requirement of a reliable expert opinion and the trial court properly exercised its discretion in excluding it

2 Painter's opinion contains no indicia of reliability

Painter's opinion that the software in the monitor is defective was based on complaints received by CAS and the prior owner of the AMI product line and on his subjective decision to accept the Graves' testimony that the alarm did not sound To show admissibility of other similar events, "[a] plaintiff must present a factual foundation for the court to determine that the other accidents were substantially similar to the accident at issue" *Watson v Ford Motor Co* Although the court advised the Graves that they needed to make a showing of reliability, Transcript 2/4/10 at 106 18-108 2, they never sought to show that these complaints were admissible evidence, or that their expert could rely on these complaints under Rule 703, SCRE "Under Rule 703, SCRE, an expert may rely on inadmissible evidence if the trial judge 'examines the reliability of the inadmissible evidence and excludes opinions not deserving of reliance in the specific

instance and/or those that rely on grossly unreliable data ”” *Jamison v Morris*, 385 S C 215, 228 684 S E 2d 168, 175 (2009) (citing Kaye, Bernstein and Mnookin, *The New Wigmore Expert Evidence* § 3 6 1a (2004)) Indeed, Painter admitted that he included complaints unless he had enough information to exclude them, Painter Dep 211 5-8, an approach contrary to what evidentiary law requires *Watson v Ford*

Had they been able to make a Rule 703, SCRE, showing, the inadmissible complaints would not be evidence of a failure, but only an explanation of how the expert reached his determination The rule does not render admissible otherwise inadmissible hearsay *Jones v Doe* 372 S C 53, 62-63, 640 S E 2d 514, 519 (Ct App 2006)

Moreover, none of these complaints has been proven and many of them are clearly different than the complaint in this case Painter admitted that at least some of the complaints were more likely hardware problems and as to others he could not tell whether the alleged malfunction was caused by hardware or software *See e g*, Painter Dep 208 4–211 8 Most importantly, Painter had not located the alleged defect, *id* at 28 20-22, nor had he established what combination of inputs could trigger the alleged defect *Id* at 59 5-8 Painter thus could not say that causation in any of the complaints was similar to causation in the Graves’ alleged failure This opinion was insufficient to prove the allegation of a defect

Indeed, Painter admitted that he did no more than construct a hypothesis *Id* at 63 20-64 9 He did not examine the code for defects, *id* at 55 6-11, and conducted no experimentation that confirmed his hypothesis *Id* at 30 9-12 The monitor operated properly in the little testing he did *Id* at 30 1-12 Painter relied only on his own training and cited no authority that supports his method or his conclusion *Id* at 178 21–179 7

His method does not lend itself to determining a rate of error *Id* Painter cited no prior publication where he or anyone else has employed his method in other situations *Id*

Further, Painter made no efforts to conduct any kind of quality control relating to his opinion For example, beyond relying on unproven complaints, Painter did not determine the statistical significance of the number of complaints in connection with the number of AMI monitors in use He also did not know how the number of complaints regarding the AMI monitors compared with those experienced by other monitor models or manufacturers *Id* at 176 24–177 10 For the same reasons, Painter’s opinion is unreliable when examined under any other reasonable test of reliability

Like the opinions of Daugherty and Lively, Painter’s opinion is no more than an unproven suspicion Such an opinion is “speculative, theoretical, and hypothetical” and amounts only to “guesses and speculation” *Jackson v Bermuda Sands Inc*, 383 S C 11, 17-18, 677 S E 2d 612, 616 (2009) The trial court thus properly exercised its discretion in excluding Painter’s testimony

F The trial court also properly excluded the expert testimony under Rule 403, SCRE

“Unfair prejudice means an undue tendency to suggest [a] decision on an improper basis” *State v Holland* 385 S C 159, 171, 682 S E 2d 898, 904 (Ct App 2009) (quoting *State v Gilchrist*, 329 S C 621, 627, 496 S E 2d 424, 427 (Ct App 1998)) The determination of whether the danger of unfair prejudice outweighs the probative value of evidence must be based on the entire record and will turn on the facts of each case *Id* (quoting *State v Lyles*, 379 S C 328, 338, 665 S E 2d 201, 206 (Ct App 2008)) This Court reviews a trial court’s decision regarding the admissibility of evidence under Rule 403 pursuant to the abuse of discretion standard and must give great

deference to the trial court's judgment *Id*

Even if otherwise admissible, the prejudicial effect of computer experts' testimony, based as it was on the Graves' say so, unproven and unrelated complaints, and hypotheses rather than proof, outweighed its probative value and was properly excluded as an exercise of the court's discretion. The prejudice inherent in Dr. Wilkins' opinions, based on incorrect facts her own say-so likewise outweighed any probative value and was properly excluded.

III The trial court properly excluded affidavits of Daughterity and Lively filed after CAS moved for summary judgment because those affidavits contradicted the experts' deposition testimony on issues critical to the case

A Daughterity and Lively changed their opinions after CAS filed its summary judgment motion

Considerations for whether an affidavit should be excluded as a sham are found in the case of *Cothran v. Brown*, 357 S.C. 210, 592 S.E.2d 629 (2004). Those considerations are (1) whether explanation is offered for the contradictory statements, (2) the importance to the litigation of the facts about which there is contradiction, (3) whether the non-movant had access to this fact prior to the previous sworn testimony, (4) the frequency and degree of variation between statements in the previous sworn testimony and statements made in the later affidavit, and (5) whether the previous sworn testimony indicates the witness was confused at the time. *Id.* at 218, 592 S.E.2d at 633. Although the striking of an affidavit is not favored, see *id.*, when reviewed in light of the *Cothran* guidelines, there can be no doubt that the trial court correctly excluded the later-filed expert affidavits in this case.

The Graves argue only that there is no contradiction between the depositions and affidavits. Recognizing that the expert testimony failed to show the defect that caused

the harm, an essential element of proof in their case, the Graves had to come up with new expert opinions to survive summary judgment. The experts do not claim that they did not have access to all of the needed information in advance of their depositions nor do they claim any confusion, however, the later-filed affidavits vary from the earlier deposition testimony on all significant issues.

B Daugherty and Lively gave testimony in an earlier case that is similar to their deposition testimony here and contrary to the statements provided in the later-filed affidavits

Daugherty and Lively were previously named as experts in a case against CAS pending in Texas, *Smith v. CAS Medical Systems, Inc. et al.* That case alleged that a loose lead alarm failed to sound, leading to brain damage in an infant because the infant allegedly was not being monitored while having an event. Daugherty and Lively were deposed in that case in November, 2008. They gave essentially the same testimony that they gave when deposed in this case in May of 2009, that an error or “bug” in the code caused the alarm not fail, but that they had not located that bug because the structure of the software, which they subjectively dubbed “spaghetti code,” made it impossible to test exhaustively. For example:

Q , really, your issue with spaghetti code is in part that if a problem is reported, it’s very difficult to find the source for that problem, right?

A Right

Daugherty Dep. (*Smith*) 95:20-24 (Emphasis added). See also *id.* at 77:14-78:10, 96:7-12. As a result, Daugherty conceded he could not prove or disprove the existence of the *legal defect* that being the error or glitch that caused the alleged failure.

Q Okay. And you’ve ruled out hardware. And essentially with respect to software, you’ve simply been unable to determine or haven’t spent the time to ascertain whether or not, in fact,

there is a defect in the software in that module which controls the loose-lead alarm, true?

A **True It's impossible because of the astronomical number of paths through the code**

Daughterity Dep (*Smith*) 107 14-21 (Emphasis added)

Q All right Now, with respect to -- is it fair to say, sir, that you, **sitting here today, based upon all the facts and information that you know in this case, can neither prove or disprove the existence of a software glitch or a software bug that played any part in the events of the evening in question? Is that fair to say?**

A **Yes**

Daughterity Dep (*Smith*) 147 20–148 2 *See also id* at 11 1-6, 134 13–135 7 Nowhere in his deposition did Daughterity say the structure of the code caused a failure, nor did he even mention GoTo statements, which he claims are the primary problem with the code in his post-*Graves* deposition affidavits

Daughterity's deposition testimony in the instant case was the same as in *Smith*. The *Graves* quote from Daughterity's deposition by selecting two ambiguous exchanges. Aware during the deposition of these unclear exchanges, at the very end of the deposition counsel for CAS had Daughterity clarify his opinions on the code in an exchange free of ambiguity.

BY MR. DuBOSE

Q I want to make sure I understand one thing you told him directly in the context of what we've been talking about this afternoon. **Assuming the correctness of your testimony that this code is too convoluted -- spaghetti code, to use your term -- as I understand your testimony, that in and of itself would not cause the alarm to fail. It was a bug within the code that would have had to cause the alarm to actually not sound when it should have. Do I understand that -- did I get that right?**

A Yes, that's correct

Q But it's the bug and not the spaghetti code itself that actually causes the computer to malfunction?

A That's correct

Q Okay And so you could have spaghetti code that's much worse than this, but if it managed to be perfectly written without a bug in it, then it would function fine?

A Yes, and that's possible with simple devices But when you get to code that's the size it's impossible to test thoroughly enough to rely on

Q But getting back to my question, it's the bug that is the cause of the malfunction in a computer –

A That's –

Q -- not the method, the general method in which the code is structured?

A That's correct

Q Okay

A But good design leads to fewer bugs Poor design leads to more bugs

MR DuBOSE I don't have anything further Thank you

MR WINSLOW I guess we're done

Daughterity Dep 168 18–170 22 (emphasis added) Moreover, Daughterity was fully prepared to testify, Daughterity Dep 27 18–28 5, and gave his complete opinions during the deposition *Id* at 164 21–166 12 Daughterity also stated in *Smith* that all of his opinions and bases for them had been covered Daughterity Dep (*Smith*) 149 6-14

1 Daugherity's first affidavit sought to change his deposition testimony in material ways

In his first affidavit, Daugherity directly contradicted his deposition opinion that a bug in the code caused the alarm not to sound and that GoTo statements in the code and the code structure generally were not the cause of the alleged failure, but only made the bug harder to find. His new opinion was that the use of GoTo statements in the AMI monitor code created a “structural error” in the code as a whole. Daugherity Aff. ¶ 16.⁷ Daugherity contended that the structural error rather than a bug within the code caused the monitor alarm to malfunction. *Id.* at ¶¶ 16, 19-22. The term “structural error” was new, and the opinion that an error in the structure of the code could cause a malfunction directly contradicted his deposition testimony.

Daugherity's affidavit includes other contradictions. At his deposition, Daugherity was certain that the alleged malfunction of the monitor was the result of a computer “bug,” a portion of the code that had been miswritten. Spaghetti code made the problem more difficult to find, but the bug itself had to be located to find the problem in the code that caused the malfunction. *Id.* at 48, 16-24. *See also id.* 168, 20, 169, 15, 70, 1-16 (emphasis added).

Although at deposition he claimed that the code was too complicated to examine in its entirety, in his affidavit Daugherity stated that he has examined the code for errors or bugs “and none has been found.” Daugherity Aff. ¶ 17. This also contradicted what counsel had written the court on April 3, 2009, to the effect that Daugherity had found some of the errors but needed more time to find the rest. Transcript 2/4/10 at 43, 14-44, 18, Winslow letter April 3, 2009. At deposition, Daugherity did not testify that the

⁷ This Daugherity affidavit was supplied without paragraph numbers but numbers are used here to simplify navigation through the affidavit.

structure of the code could cause a failure, nor did he say use of GoTo statements could cause a failure

In his deposition, Daugherty discussed that GoTo statements were not favored by some code writers but then clearly stated that, in this code, even if excessive, they would not cause the alleged malfunction, they just made the bug harder to locate

Q Is that another way of saying that they didn't cause the problem here to the extent that there might have been one, they just make it harder to find the problem if there is one?

A That's right

Daugherty Dep 150 13-17 *See also id* at 149 21–150 12

Daugherty recognized that NEC, the manufacturer of the processor used in the AMI, specifically allowed the use of GoTo statements and that they were an “option” in writing code for that processor *Id* at 147 9–148 7 He further testified that in places GoTo statements could make the code “a lot simpler,” and that it was not “a hard and fast rule” that GoTo statements rendered code unstructured, but he did advocate limited use of them *Id* at 148 2–149 16 Daugherty also testified that the use of Assembly language was proper for this application Daugherty Dep 127 16-19 In paragraph 21 of his affidavit, however, Daugherty made a 180 degree turn when he stated “These GoTo statements are defective and not fit for use with this device ”

Daugherty's affidavit offered as his exhibits 5 and 6 excerpts from two texts that he characterized as “recognition of the dangers of GoTo statements and their effects,” but these texts both cover writing in a computer language called “C ” The authors do not discuss whether GoTo statements are appropriate in Assembly language Moreover, both of these authorities allow for the use of GoTo statements at times *See e g* “C By

Discovery”, Daugherty Aff Ex 6, *see also* excerpt from Knuth, “Structured Programming with go to Statements,” 1974 (“What I am really doing is striving for a reasonably well balanced viewpoint about the proper role of GoTo statements I argue for the elimination of GoTo’s in certain cases and for their introduction in others”) Knuth also notes that a writer named Dijkstra, relied on by both Daugherty and Lively, “recently wrote the following ‘Please don’t fall into the trap of believing that I am terribly dogmatic about (the GoTo statement) I have the uncomfortable feeling that others are making a religion out of it ’” *Id* at 3 Since GoTo statements can be harmful only if misused, the blanket statement by Daugherty that they not be used at all is overbroad and fails, once again, to identify the defect that caused the alleged failure

In short, Daugherty contradicted his deposition testimony regarding the appropriateness of using GoTo statements in the monitor software, cited texts that did not support his opinion, and failed to advise the trial court that there is, at a minimum, a substantial split in authority regarding the use of GoTo statements

2 Daugherty fully examined the code prior to giving his deposition testimony in this case

Although Daugherty repeated acknowledged in *Smith* that he could not identify the cause of the alleged failure, in the eight months between that deposition and the experts’ depositions in this case, Daugherty’s and Lively’s opinions did not change, although they clearly had the time to do more work Moreover, at the *Smith* deposition, Daugherty had before him the very printout of the code that by affidavit he claimed shows the errors on its face

- Q In front of you here on the table, is that --
is that the printout of the code for the AMI --
A Yes
Q -- medical device?

Daughterity Dep (*Smith*) 78 11-14 The GoTo statements Daughterity by affidavit identified as defects (see the “Ledalarm asm” with GoTo Statements Highlighted)⁸ appear on numerous pages of the code print-out, so Daughterity had to have seen them when he was diagramming the code as he did⁹ before his deposition in the *Smith* case *See Flow Chart*¹⁰

Instead, the exhibit “Ledalarm asm” Module with GOTO Statements Highlighted, never appeared in the record before Daughterity attached it to his April 17, 2009, affidavit Daughterity Aff I, Ex 2 It is not in the *Smith* record and it did not appear in this case until after CAS moved for summary judgment Only in response to that motion did Daughterity need to discover the GoTo statement was the cause of all of the problems and highlight them on the code print-out

Daughterity offered no explanation why, in reviewing and diagramming the code initially for *Smith* and during his depositions in this case, where he said he was fully prepared to be deposed and gave all of his opinions, he never gave this essential opinion, the opinion that was the very purpose of the depositions Nowhere in either deposition did Daughterity say the faulty design was the most likely cause of the alleged alarm failure, as he later attested To the contrary, as shown, he repeatedly said the design was not the causative defect, but just made that defect harder to find, and that he had not

⁸ The Graves’ Exhibit 4 begins with an unsworn statement by Daughterity It is essentially the same as portions of his contested affidavits

⁹ Daughterity and Lively designated *all* of the unconditional branching statements in the monitor code defective without benefit of any testing to determine if any one or all of them actually work properly, rendering their affidavit opinions unproven hypothesis and thus unreliable under SCRE 702 *See Other Modules with GoTo Statements Highlighted*

¹⁰ The convoluted flow chart is a rough draft, Daughterity Dep 17 22-18 3, and could be simplified Pressman Supp Aff ¶¶ 20–30, Lively Dep 58 19–59 8

found the cause Daughterity also offered no explanation of how he came to his GoTo revelation after so long In Daughterity's post-deposition affidavits the trial court was faced with new opinions promulgated without explanation to avoid summary judgment The court properly struck them under *Cothran v Brown*, 357 S C 210, 592 S E 2d 629 (2004)

3 Daughterity reversed his testimony on the monitor log

At deposition, Daughterity testified that he could not say more likely than not that the logging function ever malfunctioned Daughterity Dep 78 14-21 In paragraph 25 of his affidavit, however, with the pressure of summary judgment upon the Graves, Daughterity's opinions changed to "it is certain that the logs are not reliable " He did not base this on new information from further study or from testing of the code, the only new factor was his new opinion that the unstructured architecture of the code as a whole caused malfunctions

4 Daughterity's affidavit opinion was rendered on short notice

The Graves argue without citation that Daughterity labored over his new opinion for a year At the March 17, 2009, hearing the Graves were given 30 days to provide any additional expert opinions On April 3, 2009, the Graves wrote the court asking for an extension of the 30 days, telling the court that their experts were busy with final exams, and stating further

They have begun the process of pulling out the bad code, but have asked if I would be able to obtain a continuance to further test and study this software While the experts understand the urgency of complying with the Court's ruling, they are asking for additional time to work on these issues as well as prepare for final exams They are asking for an additional 60 to 90 days in order to complete final exams and finish dissecting the code

Winslow Letter to Court, April 3, 2009 When the court did not grant the requested extension, the Graves had to provide an opinion in less than 14 days The result was Daugherity's first affidavit, dated April 17, 2009 Not only did what Daugherity write in the affidavit contradict his deposition testimony, as shown, but it also contradicted what counsel advised the court about the work the experts were doing Daugherity did not "pull out bad code" nor did he test the software Instead, he highlighted one specific instruction in the written version of code each time it appeared and constructed an argument to support what he had done If these GoTo statements were truly a problem, Daugherity's work in highlighting the GoTo statements in the code is something he reasonably would have done before his November 2008 deposition in the *Smith* case Since highlighting them could have only taken a matter of minutes, this could not have been the work counsel told the court he had begun but needed up to three more months to complete The court expressed concern about this inconsistency at the February 2, 2010, hearing, Transcript at 43 14–44 18, but the Graves failed to offer any explanation for it

In his second affidavit, dated February 2, 2010, Daugherity repeated his changed opinions set forth in his original affidavit and tried to bolster his claim that the code was untestable by taking part of Dr Pressman's text book out of context Daugherity Aff 2/2/10 at ¶ 5, Pressman Suppl Aff 2/3/10 at ¶¶ 2 0–9 0 Most notable in this affidavit, however, is Daugherity's advocacy against CAS, repeatedly calling it "clearly negligent," "incredibly negligent," and characterizing its conduct in not finding the alleged error, which Daugherity also has not found, as "deplorable " The trial judge noted the fact that Daugherity had crossed the line from objective expert to biased advocate Order at 7

Daughterity also was impermissibly stating legal conclusions *See, e g , Hermitage Indus v Schwerman Trucking Co* , 814 F Supp 484, 485 (D S C 1993)

5 Daughterity’s third affidavit added further inconsistency

As Exhibit 6 to their March 1, 2010, memorandum, the Graves provided the court with a third affidavit from Daughterity In this affidavit, Daughterity retracted earlier opinions regarding the alleged failure of the logging function of the monitor, spaghetti code, and GoTo statements, and failed to explain how his two opinions are actually the same In his third affidavit, Daughterity wrote that it is “*possible* that the logging function might not be called ,” that raw events “*may not* have been handled properly after logging,” and that the events “*may be* unreliable if the device did not create the log according to the specification ” Daughterity offered no indication of the degree of likelihood of one, much less all, of these failures actually occurring Daughterity Aff (3/1/10) Although not discussed in the orders on appeal, these new opinions are not stated with sufficient certainty to be admissible, leaving the trial court with no admissible opinion (or inconsistent and thus inadmissible opinions) that the logging operation of the monitor malfunctioned

6 Lively’s affidavit changed his testimony

Lively also sought to change his deposition testimony by way of later affidavit He said at deposition that use of GoTo statements caused the code to be spaghetti code, Lively Dep 144 5-7, but rejected the idea that the spaghetti code structure caused the alleged alarm failure He stated instead that there had to be a software failure, an error in the code, that was causing the malfunction *Id* at 60 8–61 12 Rather than the structure causing the malfunction, he complained only that it “is preventing me from finding the

problem and fixing the code” *Id* at 60 11-18 ¹¹ Lively had not looked for nor had he found the alleged software error, nor had anyone else found it to his knowledge *Id* at 61 1-62 18, 111 16-112 1 In the *Smith* case, Lively likewise testified that they had not found any specific problem in the code that cause the alleged alarm failure Lively Dep (*Smith*) 16 13-17 12

After CAS filed its summary judgment motion, however, Lively contradicted his deposition testimony, for the first time making statements such as “[m]y review of the relevant material has led to my opinion that the ‘spaghetti code’ is a direct cause for the alarm to malfunction” Lively Aff 3/13/09, ¶ 12 These claims, repeated throughout his affidavits, contradict not only his specific deposition opinion that spaghetti code only made the error harder to find, but also cannot be reconciled with his deposition admission that he and Daugherty had not found the software error causing the supposed malfunction

The Graves citation to Lively’s general deposition statements that the software is the problem and that there was error in that part of the design misses the point That general testimony insufficiently identifies the defect that caused the injury, just as testimony that “the brake system failed” would be inadequate evidence of an alleged auto brake defect Both experts did consistently claim the problem was the code, but when pressed to identify what one might call the *legal defect*, the specific error that caused the alleged failure, they first testified that they knew there was a code writing error, that the problem causing the alleged malfunction was not the structure of the code or GoTo

¹¹ Contrary to what the Graves argue on appeal, Lively did not say at page 144 of his deposition that GoTo statements “allow the signal to travel an erroneous pathway” Instead, he said that they ‘cause me to branch throughout the program” which is a comment only about structure, not erroneously traveled pathways Lively Dep 144 8-10

statements, and that they had not found the cause. Like Daugherty, after CAS filed its summary judgment motion, Lively's opinions turned 180 degrees.

Faced with Daugherty's and Lively's unexplained course reversal in response to CAS's summary judgment motion, the trial court appropriately excluded the experts' affidavits under *Cothran*.

IV The Court Properly Granted Summary Judgment

A The Graves failed to present admissible evidence of proximate cause

As in *Watson*, after exclusion of the Graves' experts, the trial court was left with no facts to support a judgment. Although the Graves' allegation of an alarm failure remained, there was no proof of a defect, and most critically, in light of the exclusion of Dr. Wilkins' unreliable opinion, no evidence as to causation. Indeed, the lack of admissible causation testimony mandated summary judgment even if the expert testimony as to the monitor software had been allowed.

B The Graves cannot prove a defect in the AMI monitor solely by circumstantial evidence

The Graves concede that no South Carolina case supports their claim that they can prove a product design defect by circumstantial evidence. In *Watson v. Ford*, the Court first implicitly rejected proof of a defect by testimony other than expert opinion, making clear that expert testimony is *required* "where a factual issue must be resolved with scientific, technical, or any other specialized knowledge." The court went on to hold more explicitly: "Without such [expert] testimony, respondents failed to present a case for products liability. We find that the mere occurrence of an accident or existence of an alleged product malfunction does not establish the liability of a product manufacturer." *Watson v. Ford*. *Watson* thus rejected the circumstantial evidence

argument made by the Graves' counsel in that case, and here, and rejected as well the idea that a strict liability version of *res ipsa loquitor* might be recognized. The Graves' claim of a design defect required reliable expert testimony of a specific defect and could not be proved by circumstantial evidence.

The ruling in *Watson* was not novel. In *Shelton v. LS&K, Inc.*, 374 S.C. 294, 648 S.E.2d 307 (2007), the court found that the plaintiff failed to prove her case that a Burger King parking lot landscape design was defective when she offered no expert testimony on proper placement of trees and other design elements for pedestrian safety. Certainly the issue of software design is vastly more complicated than the location of trees at a Burger King and must be proven by reliable expert testimony, particularly where not only the cause of the alleged malfunction, but the very question of whether a malfunction occurred, is at issue.

Other cases hold likewise. In *Sunvillas Home Owners Ass'n v. Square D Co.*, 301 S.C. 330, 391 S.E.2d 868 (Ct. App. 1990), the court upheld a directed verdict for the allegedly negligent manufacturer-defendant on the issue of whether its circuit breaker failed due to a defect, explaining: "Sunvillas' expert did not identify a *specific defect* in the circuit breaker which was the result of a manufacturing error by Square D. At most the jury would be left to speculate how Square D failed to exercise due care." 301 S.C. at 334, 391 S.E.2d at 870 (emphasis added). Submission of this products liability case under a strict liability on nothing but circumstantial evidence would likewise require a jury to speculate as to the defect and, in this case, as to claim of failure, as well.

Moreover, the Graves' circumstantial evidence is largely inadmissible. The Graves argue that six items of supposed circumstantial evidence support their claim even

assuming the proper exclusion of what they term their experts' "specific defect claims" CAS does not dispute that the monitor was set up properly and that it had power. Beyond that, however, the Graves rely primarily on what they apparently consider to be portions of their expert Daugherty's testimony that are not particular to identification of the defect, specifically the structure of the code so as to allegedly be subject to "external interrupt events," Daugherty's exclusion of other possible causes, and Daugherty's "reliable opinion" as to how the monitor log could show that the alarm sounded even if it did not.

The Graves' reliance on this testimony overlooks that CAS objected to and the trial court excluded *all* of Daugherty's opinions as unreliable and his affidavit testimony as running afoul of *Cothran v. Brown*. Like the experts excluded in *Watson*, Daugherty (as well as the other experts) were not offered for general testimony on how the monitor software worked. They were offered to testify that the monitor was defective and how it was defective. Any general opinions they had were necessarily informed by these specific conclusions. The Graves do not and cannot explain how the opinions could be properly excluded yet still support a circumstantial evidence case.

The Graves seem to argue in favor of a rule that would admit an expert's negative comments about a product even where that expert could not meet the threshold obligation of identifying a defect or the test of reliability. The danger of allowing one clothed with the authority of an expert to malign a product, in essence testifying without proof of an actual defect, about what *might* happen, violates at least Rules 401 and 403, SCRE. One need to look no further than the passages quoted by the Graves to see that Daugherty's and Painter's external events testimony was by their own admission strictly a possibility.

and not more likely to happen than not. Nowhere did any expert identify a condition where an external event more likely than not did or even could interrupt the processing. CAS has found no precedent that would exclude an expert's opinions as unreliable yet allow into evidence the faulty reasoning by which he arrived at his conclusion. Additionally, Daugherty's analysis excluding other possible causes was, as shown above, deeply flawed.

Stripped of the excluded testimony of the experts, the inconclusive testimony of the other witness in the house, and the testimony of the EMT who did not remember what she saw, the circumstantial evidence case boils down to the Graves' claim that the alarm malfunctioned. This is merely the product failure allegation of the complaint, which under Rule 56, SCRCP, and settled law is not sufficient support for an opposition to a Rule 56 motion. *George v. Empire Fire & Marine Ins. Co.*, 344 S.C. 582, 593, 545 S.E.2d 500, 505 (2001) (party opposing summary judgment cannot simply rest on mere allegations or denials contained in pleadings). Assuming the Graves' claim can be considered, however, it is evidence only of whether there was a failure, not the cause of the failure.

In *Sunvillas* (unlike here) there was no doubt that the product failed. The issue was whether the failure was due to a defect. While *Sunvillas* involved a claim only of negligence, its proof of defect requirement would apply equally if not more so to the Graves' claims of strict liability and breach of warranty. With the plaintiffs unable to identify the alleged defect that caused the injury, a jury is left to speculate whether that defect exists. *Jackson v. Bermuda Sands, Inc.*, 383 S.C. 11, 17, 677 S.E.2d 612, 616-17 (Ct. App. 2009) (where alleged defect not proved by scientific testing, opinions "amount

to mere speculation and conjecture”) *See also Disher v Synthes*, 371 F Supp 2d 764, 770 (D S C 2005) (applying S C law) (“Speculative or conclusory allegations of defective design do not, as a matter of law, establish the existence of a defect”)

C The Graves failed to show feasible alternative design

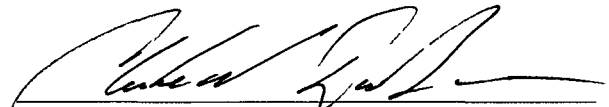
The Graves bore the burden of proving by expert testimony there was a feasible alternative design available, but their experts failed to advance a feasible alternative design *Branham v Ford Motor Co*, Op No 26860 (Filed August 16, 2010), *see also Watson v Ford Motor Co* (expert’s testimony regarding feasible alternative design “lacked any scientific basis and contained no indicia of reliability”)

In *Watson*, expert Anderson’s alternative design testimony was found unreliable because he could not explain how his proposed design would fit within the automobile cruise control system at issue, offered no model comparison, and failed to provide evidence of claimed economic feasibility In the instant case, the experts’ proposed alternative design is no more than an untested assertion that CAS should exchange the allegedly defective software for working, structured software Here, much like in *Watson*, the experts do not address compatibility of the proposed software with the existing monitor processor, the cost of a new processor if needed for compatibility, and, if needed, whether a new processor would be compatible with the remainder of the monitor Although the experts have given an estimate of the cost of writing new software, they do not estimate the cost of recall and reinstallation in the thousands of monitors that are in use The Graves have not shown the feasibility of their proposed alternative design, rendering the expert testimony on this subject unreliable and thus inadmissible

CONCLUSION

For the reasons stated in the trial court's Orders, and the reasons stated above, including the numerous additional sustaining grounds, the Orders of the trial court excluding the Graves' expert opinions, striking their affidavits, and granting summary judgment to CAS Medical Systems, Inc , should be affirmed

Respectfully submitted, this 4th day of October, 2010



(Clarke W DuBose, Esq

Sarah Spruill, Esq

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Attorneys for Respondent

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY

Court of Common Pleas

James C Williams, Jr , Circuit Court Judge

Case No 08- CP-38-826

RECEIVED

OCT 14 2010

SC Court of Appeals

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

REPLY BRIEF OF APPELLANTS

J Edward Bell, III
Law Offices of J Edward Bell LLC
Post Office Box 2590
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ARGUMENT

I CAS HAS FAILED TO SHOW THAT THE SUMMARY JUDGMENT CAN BE UPHELD, GIVEN THE CIRCUIT COURT'S USE OF THE WRONG STANDARDS TO EXCLUDE THE EXPERTS

The Plaintiffs pointed out in their Initial Brief that the Circuit Court committed reversible error by using the unique gate keeping standards for *scientific* expert testimony to exclude the purely technical testimony of the software experts. In reply, CAS lamely insists that the testimony was “scientific in nature” but points to no scientific theory, or any novel principle outside the realm of established computer science used by the experts that would support this contention. Recognizing that the Circuit Court’s use of the wrong standards is fatal to its ruling, CAS attempts to deflect this problem by arguing that the Plaintiffs have somehow waived this error on appeal. Although CAS admits that the Plaintiffs made this precise argument in a supplemental memorandum filed October 23, 2009, CAS contends that they abandoned it because Plaintiffs’ counsel at a hearing at one point referred to the experts as “scientific experts,” and, in a memorandum, chastised the defense for not understanding “the science involved” in the case. In the Supplemental Memorandum, however, the Plaintiffs squarely argued that the gate keeping factors listed in State v Council, 335 S C 1, 19-21, 515 S E 2d 508 (1999) did not apply because the testimony was not scientific in nature and explained why *The Plaintiffs never withdrew this memorandum or this position*. Although Plaintiffs’ counsel did make some gratuitous references to “scientific experts” and the memorandum referred to the “science involved,” these statements by no means waived their formal legal position.

In any event, the characterization of the testimony by Plaintiffs’ counsel is not what is important. All the court need do is look at the methodology used by Dr

Daughterity and the other experts as set forth in pages 9-11 of the Initial Brief. There is not a single step used that can be characterized as involving “scientific testimony.” By the reasoning of CAS, any expert testimony concerning software would be “scientific testimony.” This reasoning is nonsensical on its face. Thus, CAS erroneously asserts that the Plaintiffs failed to show that the testimony was not scientific. They made this precise showing in their Initial Brief, and it is CAS that has utterly failed to show otherwise.

CAS fares no better by arguing that the Plaintiffs never raised their “reasoning the best inference” argument to the Circuit Court. This argument is ethically troubling because **CAS well knows that this is a misrepresentation of the arguments presented below.** The Plaintiffs argued that they could prove a defect by proving a malfunction and eliminating all causes of the malfunction but a product defect. Although the Plaintiffs did not at this time label this methodology “reasoning to the best inference,” that is precisely the methodology described to the Circuit Court. In the Initial Brief, the Plaintiffs simply explained that this methodology is similar to differential diagnosis as used in the medical field, and is sometimes described as “reasoning to the best inference” in the non-medical field. But the Plaintiffs have argued that this methodology, however labeled, is proper from Day One.

Not amiss to making self-serving statements, CAS proclaims that the Council factors still “fit” the opinions offered and insist that the Plaintiffs have not shown otherwise. But as explained in the Initial Brief, reasoning to the best inference *has its own reliability factors for consideration*. An expert is not allowed to simply stand up and say “the product malfunctioned and a defect is the most likely cause of the malfunction.” To

the contrary, the expert's reasoning to the best inference opinion passes Rule 702's reliability test *only* if it meets the following demanding five standards

[1] Experts must provide objective reasons for eliminating alternative causes when employing a "differential analysis " Furthermore, [2] the inference to the best explanation must first be in the range of possible causes, [3] there must be some independent evidence that the cause identified is of the type that could have been the cause But more than mere possibility, [4] an inference to the best explanation for the cause of an accident must eliminate other possible sources as highly improbable, and [5] must demonstrate that the cause identified is highly probable

Bitler v A O Smith, 400 F 3d 1227, 1237-38 (10th Cir 2004)

The foregoing methodology is the precise one used by the Plaintiffs' defect experts These factors do *not* include the published opinion, peer review, rate of error, and reproduction by testing factors of Council Obviously, if these factors were applied every time an engineer explained that a flat tire had caused an accident, technical expert testimony *would never be admitted* because no one writes papers about well-established technical principles In this case, the experts simply used well-established principles of computer science and then employed a reasoning to the best inference methodology to conclude that the software was defective The Council factors have nothing to do with the reliability of this methodology, and the summary judgment – which was based on the exclusion of the defect experts under Council – must be reversed for this reason alone

II CAS HAS FAILED TO SHOW THAT THE CIRCUIT COURT PROPERLY EXCLUDED THE CAUSATION TESTIMONY OF DR WILKINS

CAS continues to insist that Dr Wilkins was not qualified to give expert testimony on causation because she is not a self-proclaimed expert on sudden infant death (SIDS) But the real question is whether Dr Wilkins is qualified to give an opinion as to whether India would have survived had the alarm timely sounded In this regard, Rule

702, SCRE, permits an expert to qualify based on her knowledge, education, or experience Dr Wilkins actually qualifies on all three bases as explained in the Plaintiffs' Initial Brief CAS has offered no rebuttal to this argument beyond insisting that only a "SIDS expert" could opine as to whether India would have survived had the alarm timely sounded CAS thus has failed to show any reason why Dr Wilkins' knowledge, education, and experience collectively are inadequate to qualify her as an expert in this case

CAS contends that the Plaintiffs described Dr Wilkins' methodology as one of differential diagnosis This is simply wrong The differential diagnosis discussion in the Initial Brief was solely with reference to the software defect experts

CAS attacks the reliability of Dr Wilkins opinion by again returning to State v Council, 335 S C 1, 19-21, 515 S E 2d 508 (1999) and complaining that Dr Wilkins testimony does not pass muster under the standards for scientific testimony But Dr Wilkins simply gave non-scientific medical testimony based on her knowledge, education, and experience and Council simply does not apply

CAS also challenges Dr Wilkins' opinion on the merits Relying on an affidavit submitted by Dr Hunt, CAS insists that SIDS babies are non-resuscitable CAS also challenges Dr Wilkins' opinion on the merits Relying on an affidavit submitted by Dr Hunt, CAS insists that SIDS babies are non-resuscitable Unfortunately, what CAS fails to explain is that SIDS is a lack of diagnosis for the *death* of a child A SIDS cause of death on a death certificate is the lack of an explainable diagnosis for the death, it is the use of circumstantial evidence to label the death Much like in this case, if a medical

examiner has labeled a death SIDS, they have used direct and circumstantial evidence to rule out every other possible cause of death. As Dr. Wilkins is testifying to whether this child would have survived a apnea event and not survived a undiagnosed event, the testimony is reliable and relevant. The Circuit Court, however, did not use Dr. Hunt's opinion as a basis for either excluding Dr. Wilkins or granting summary judgment. The Circuit Court, however, did not use Dr. Hunt's opinion as a basis for either excluding Dr. Wilkins or granting summary judgment. In any event, these differing opinions on causation merely show that a material question of fact existed that compelled the Circuit Court to deny the summary judgment motion. The summary judgment accordingly cannot be upheld on grounds that the Plaintiffs failed to present evidence of causation, as the Circuit Court clearly abused its discretion in excluding Dr. Wilkins.

III THE CIRCUMSTANTIAL EVIDENCE ALONE WAS SUFFICIENT TO ESTABLISH THAT AN UNREASONABLY DANGEROUS DEFECT EXISTED IN THE MONITOR

In response to the Plaintiffs' argument that the circumstantial evidence presented established an unreasonably dangerous defect in the monitor, CAS contends that the Plaintiffs cannot prove a defect in the monitor by circumstantial evidence. According to CAS, "[a]s our Supreme Court held recently, Watson v. Ford Motor Co., Op. No. 27686 (re-filed September 13, 2010), a defect must be proven and cannot be shown by circumstantial evidence." (Initial Brief at 27)

The Plaintiffs can find no holding in this case that a defect in a product may not be proven by circumstantial evidence. In fact, the majority opinion simply fails to address this part of the case. The Watson Plaintiffs have filed a Petition for Rehearing asking the

Watson majority to rule whether the judgment entered on the jury verdict can be upheld basely solely on the circumstantial evidence presented

Regardless of whether the South Carolina Supreme Court agrees the circumstantial evidence presented by the Watson plaintiffs was sufficient to prove a defect, the principle argued in the instant case – that a plaintiff need not prove a specific defect in a product and may prove a defect relying of circumstantial evidence - is now established beyond dispute in light of the opinion of Justice Pleicones, concurring in part and dissenting in part in Watson Justice Pleicones adopted the Circuit Court opinion as the law of South Carolina

“Accordingly, even if the jury rejected the expert’s testimony, the circumstantial evidence was sufficient to support the verdict [Respondents] were not require to prove a specific defect in the vehicle and could properly prove that the vehicle was defective and unreasonably dangerous using circumstantial evidence St Paul Fire and Marine Ins Co v American Ins Co, 251 S C 56, 59-60 159 S E 2d 921, 923 (1968) (“[a]ny fact in issue may be proved by circumstantial evidence as well as direct evidence, and circumstantial evidence is just as good as direct evidence if it is equally as convincing to the trier of the facts”), McQuillen v Dobbs, 262 C 386, 391-92, 204 S E 2d 732 (1974) (“negligence may be proved by circumstantial evidence as well as direct evidence”), Restatement (Third) of Torts Product Liability § 3 Comment c (1998) (“No requirement that plaintiff prove what aspect of the product was

defective The inference of defect may be drawn under this Section
without proof of the specific defect) ”

(Sl Op at 14-15) At least unless and until the Watson majority says differently, this concurrence best describes the current law of South Carolina on this issue. The Circuit Court accordingly was required to consider whether the circumstantial evidence – the malfunction of the monitor in ordinary use, the elimination of all non-defect causes of the malfunction, the experts’ identification of a possible cause of the malfunction- viz , a defect in the software- and their opinion that this was most probably the cause of the failure on the night of India’ death – required that the summary judgment motion be denied

CONCLUSION

For the reasons stated, the Plaintiffs renew their request that the summary judgment entered by the Circuit Court be reversed and the case be remanded for trial

LAW OFFICES OF J EDWARD BELL, III, LLC

By



J Edward Bell

Thomas William Winslow

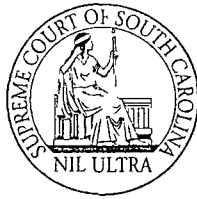
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ATTORNEY FOR APPELLANT

October 11, 2010



The Supreme Court of South Carolina

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November 29, 2011

John S. Nichols, Esquire
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P O Box 7965
Columbia, SC 29202

Re Graves, Kareem v CAS Medical

Dear Counsel

The following Order has been endorsed on your Request for Oral Argument in the above entitled case on appeal

“Request denied

s/ Jean H. Toal C J
For the Court

November 29, 2011 ”

By copy of this letter we are advising all counsel of record of the action of the Court in this matter

Very truly yours,

CLERK

DES/dmh

Graves, Kareem v CAS Medical
Page Two
November 29, 2011

cc Clarke W DuBose, Esquire
Sarah Spruill, Esquire
J Edward Bell, III, Esquire



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NOV 28 2011

November 22, 2011

SC SUPREME COURT

VIA FACSIMILE ((803) 734-1499)

The Honorable Daniel E Shearouse
Clerk
South Carolina Supreme Court

RE Kareem J Graves and Tara Graves, individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves v CAS Medical Systems Inc
Case No 08-CP-38-826

Dear Mr Shearouse

Oral argument for this case is set for Wednesday November 30 2011, at 10 00 a m I
will be appearing at argument on behalf of the amici The amici respectfully request that the
Court allot the amici 10 minutes of oral argument time

Thank you in advance for your consideration If you have any questions or need any
additional information please do not hesitate to contact me

With kind regards

REQUEST DENIED

Sincerely,

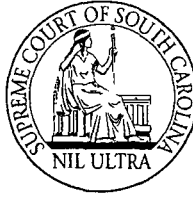
John S. Nichols
BLUESTEIN NICHOLS THOMPSON &
DELGADO, LLC

For The Court

JSN/awh

November 29, 2011

cc J Edward Bell, III Esquire (Counsel for Appellants)
Clarke W Dubose Esquire (Counsel for Respondent)
Sara Spruill, Esquire (Counsel for Respondent)



The Supreme Court of South Carolina

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J Edward Bell, III, Esquire
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Georgetown, SC 29442

Re Graves, Kareem v CAS Medical

Dear Counsel

The record in the above case has been reviewed and the time allotment for oral argument for this case is as follows

Appellants	15 minutes
Respondent	15 minutes
Appellants in Reply	5 minutes

This case is scheduled for hearing on Wednesday, November 30, 2011 at 10 00
a m

Very truly yours,

Daniel E Shearouse, Clerk

By Debbie M Hopkins
Administrative Assistant

DES/dmh

cc John S Nichols, Esquire

October 17, 2011

The Honorable Daniel E Shearouse
Clerk of Court
South Carolina Supreme Court
P O Box 11330
Columbia, SC 29211

IN RE Graves v CAS Medical
C/A No 08-CP-38-826

Dear Mr Shearouse

I am in receipt of your notice of October 5, 2011, wherein you advise that the above case will likely be reached during the December 2011 term of Court I apologize for not responding before now, however, as I indicated in mv letter of October 4, 2011, I have no conflicts on the dates set forth and have held these dates on my calendar

With kindest regards, I am

Yours very truly,



J Edward Bell, III

JEBIII/djb

cc John S Nichols, Esquire
Clarke W Dubose, Esquire
Sara Spruill, Esquire

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OCT 18 2011
S.C. SUPREME COURT

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October 10, 2011

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The Honorable Daniel E. Shearouse
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RE Kareem J. Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Lyanna Graves v. CAS Medical Systems, Inc.
Case No. 08-CP-38-826

Dear Mr. Shearouse:

I am in receipt of your letter dated October 5, 2011, advising that the above case will likely be reached during the December 2011 term of Court. Please be advised that I have no conflicts.

Thank you for your attention to this matter. If you need anything further, please do not hesitate to contact me. With kind regards, I am

Yours sincerely,

John S. Nichols
BLUESTEIN NICHOLS, THOMPSON &
DELGADO LLC

JSN/awh
Enclosures

cc J. Edward Bell, III Esquire (Counsel for Appellants)
Clarke W. Dūbose Esquire (Counsel for Respondent)
Sara Spruill, Esquire (Counsel for Respondent)

October 4, 2011

The Honorable Daniel E Shearouse
Clerk of Court
South Carolina Supreme Court
P O Box 11330
Columbia, SC 29211

IN RE Graves v CAS Medical
C/A No 08-CP-38-826

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OCT 06 2011

S.C. SUPREME COURT

Dear Mr Shearouse

I am in receipt of your letter of September 21, 2011, regarding the December Preliminary List of Cases Please be advised that I have no conflicts on the dates set forth in your letter and have held them until we hear from you regarding the scheduling of the above referenced matter

With kindest regards, I am

Yours very truly,



J Edward Bell, III

JEBIII/djb

cc John S Nichols, Esquire
Clarke W Dubose, Esquire
Sara Spruill, Esquire

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October 4, 2011

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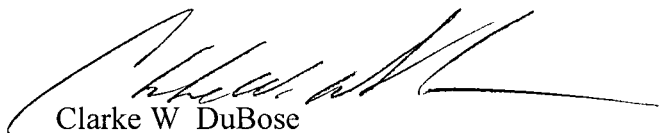
Re *Graves v. CAS Medical Systems, Inc.*
Case No. 08-CP-38-826

Dear Mr. Shearhouse:

I am in receipt of your letter dated September 21, 2011, advising that the above case will be placed on the December 2011 Preliminary List of Cases. I am writing to advise that I am available on the dates the Court will meet during the December term to argue the above appeal. I look forward to hearing from the Court as to the date and time of this argument.

Do not hesitate to contact me should the need arise.

Yours truly,



Clarke W. DuBose
CWD/kg

cc Thomas W. Winslow, Esq.
John S. Nichols, Esq.



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
CLERK OF COURT
BRENDA F. SHEALY
DEPUTY CLERK

P.O. BOX 11330
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PHONE NO. 734 1080

To John S. Nichols Esquire
From Daniel E. Shearouse
Date October 05, 2011
RE December Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the December 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

Court will meet the days of November 29, November 30, and December 1. Please notify this office in writing prior to October 12, 2011, as to any scheduling conflicts for the December term and any changes or additions of counsel that should be made to the record for the purpose of argument. If you do have a scheduling conflict, please advise as to the specific nature of the conflict.

Graves, Kareem v. CAS Medical



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
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BRENDA F. SHEALY
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To J. Edward Bell III Esquire
From Daniel E. Shearouse
Date October 05, 2011
RE December Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the December 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

Court will meet the days of November 29, November 30, and December 1. Please notify this office in writing prior to October 12, 2011, as to any scheduling conflicts for the December term and any changes or additions of counsel that should be made to the record for the purpose of argument. If you do have a scheduling conflict, please advise as to the specific nature of the conflict.

Graves, Kareem v. CAS Medical



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
CLERK OF COURT
BRENDA F. SHEALY
DEPUTY CLERK

P.O. BOX 11330
COLUMBIA, S.C. 29211
PHONE NO. 734 1080

To Clarke W. DuBose Esquire
Sarah Spruill Esquire
From Daniel E. Shearouse
Date October 05, 2011
RE December Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the December 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

Court will meet the days of November 29, November 30, and December 1. Please notify this office in writing prior to October 12, 2011, as to any scheduling conflicts for the December term and any changes or additions of counsel that should be made to the record for the purpose of argument. If you do have a scheduling conflict, please advise as to the specific nature of the conflict.

Graves, Kareem v. CAS Medical



BLUESTEIN NICHOLS THOMPSON DELGADO LLC
ATTORNEYS AT LAW

Margaret Miles Bluestein
John Shannon Nichols
Stacy Elizabeth Thompson
John Dennis Delgado
Allison Paige Sullivan
Ashley Trout Thompson

September 23, 2011

RECEIVED

SEP 26 2011

S.C. SUPREME COURT

The Honorable Daniel E. Shearouse
Clerk
South Carolina Supreme Court
Post Office Box 11330
Columbia, South Carolina 29211

RE Kareem J. Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Lyanna Graves v. CAS Medical Systems, Inc.
Case No. 08-CP-38-826

Dear Mr. Shearouse:

I am in receipt of your letter dated September 21, 2011, advising that the above case will likely be reached during the December 2011 term of Court. Please be advised that I have no conflicts.

Thank you for your attention to this matter. If you need anything further, please do not hesitate to contact me. With kind regards, I am

Sincerely,

John S. Nichols
BLUESTEIN, NICHOLS, THOMPSON &
DELGADO LLC

/awh

Enclosures

cc J. Edward Bell, III, Esquire (Counsel for Appellants)
Clarke W. Dubose, Esquire (Counsel for Respondent)
Sara Spruill, Esquire (Counsel for Respondent)

September 21, 2011

Ms Debbie Hopkins
South Carolina Supreme Court
P O Box 11330
Columbia, SC 29211

RECEIVED

SEP 22 2011

IN RE Graves v CAS Medical

S.C Supreme Court

Dear Ms Hopkins

With regards to your telephone conversation this morning with my paralegal, this is to confirm that Mr Winslow should be removed as attorney of record in this matter

With kindest regards, I am

Yours very truly,



J Edward Bell, III

JEBIII/djb

**BELL
LEGAL
GROUP**

A Leading National Civil Litigation Firm

232 King Street
Georgetown SC 29440
PH 843 546 2408
FAX 843 546 9604

434 C North Guignard Drive
Post Office Box 460
Sumter SC 29151
PH 803 778 6531
FAX 803 773 3693

www.BellLegalGroup.com

September 20, 2011

Ms Debbie Hopkins
South Carolina Supreme Court
P O Box 11330
Columbia, SC 29211

IN RE Graves v CAS Medical

Dear Ms Hopkins

Please be advised that Mr Thomas Winslow is no longer with our firm I will be handling the upcoming oral argument in the above referenced matter

With kindest regards, I am

Yours very truly,



J Edward Bell, III

JEBIII/djb

RECEIVED

SEP 21 2011

S.C. SUPREME COURT

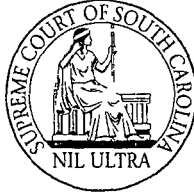
**BELL
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The Supreme Court of South Carolina

DANIEL E. SHEAROUSE
CLERK OF COURT

BRENDA F. SHEALY
CHIEF DEPUTY CLERK

POST OFFICE BOX 11330
COLUMBIA SOUTH CAROLINA 29211

(803) 734 1080

FAX (803) 734 1499

September 21, 2011

J Edward Bell, III, Esquire
P O Box 2590
Georgetown, SC 29442

Clarke W DuBose, Esquire
Sarah Spruill, Esquire
Haynsworth Sinkler Boyd, P A
P O Box 11889
Columbia, SC 29211

John S Nichols, Esquire
Bluestein, Nichols, Thompson and Delgado, LLC
P O Box 7965
Columbia, SC 29202

Re Graves, Kareem v CAS Medical ,

Dear Counsel

When the roster for the November 2011 term of Court was prepared, the above referenced case was not scheduled. Our records indicate that you are counsel of record in this case.

This case will be placed on the December 2011 Preliminary List of Cases. Court will meet the days of November 29, November 30 and December 1.

Graves, Kareem v CAS Medical
Page Two
September 21, 2011

Very truly yours,

Daniel & Sherouse
ds
CLERK

DES/dmh

Haynsworth
Sinkler Boyd, P.A.

ATTORNEYS AND COUNSELORS AT LAW

CHARLESTON
COLUMBIA
FLORENCE
GREENVILLE
MYRTLE BEACH
WASHINGTON DC

1201 MAIN STREET 22ND FLOOR (29201 3226)
POST OFFICE BOX 11889 (29211 1889)
COLUMBIA SOUTH CAROLINA
TELEPHONE 803 779 3080
FACSIMILE 803 765 1243
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CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
cdubose@hsblawfirm.com

RECEIVED

September 2, 2011

SEP 07 2011

S.C. SUPREME COURT

Mr Daniel E Shearhouse
Clerk of Court
The South Carolina Supreme Court
1231 Gervais Street
Columbia, South Carolina 29201

RECEIVED
SEP 07 2011
S.C. SUPREME COURT

Re *Graves v CAS Medical Systems Inc*
Case No 08-CP-38-826

Dear Mr Shearhouse

I am in receipt of your memorandum dated August 29, 2011, advising of the November preliminary list for oral argument I am writing to advise that I am currently available any of the days that the Court will meet during the month of November to argue the above appeal I look forward to hearing from the Court as to the date and time of this argument

Do not hesitate to contact me should the need arise

Yours truly,



Clarke W DuBose
CWD/kg

cc Thomas W Winslow, Esq
John S Nichols, Esq

September 1, 2011

The Honorable Daniel L. Shearouse
Clerk of Court
South Carolina Supreme Court
P O Box 11330
Columbia, SC 29211

IN RE Graves v. CAS Medical

Dear Mr. Shearouse

I am in receipt of your notice regarding the November Preliminary List. Please note that I am unavailable November 1 - 3, 2011, as I am scheduled to be in a trial in Spartanburg starting October 31, 2011 (Case *Ellis*, C/A 08-CP-42-1321). However, I do not have any conflicts on November 15 or 16 and will hold these dates on my calendar.

With kindest regards, I am

Yours very truly,



J. Edward Bell III

JEBIII/djb

RECEIVED

SEP 02 2011

S.C. SUPREME COURT

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LEGAL
GROUP**

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www.hsblawfirm.com

CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
cdubose@hsblawfirm.com

September 2, 2011

VIA HAND DELIVERY

Mr Daniel E Shearhouse
Clerk of Court
The South Carolina Supreme Court
1231 Gervais Street
Columbia, South Carolina 29201

Re *Graves v CAS Medical Systems Inc*
Case No 08-CP-38-826

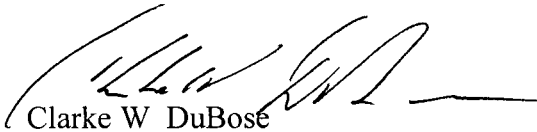
Dear Mr Shearhouse

Enclosed in connection with the above-referenced matter are fifteen bound copies and one unbound copy of Respondent's Reply to Brief of Amicus Curiae, along with a Certificate of Service

I have also enclosed an extra bound copy of the Reply and asked that you file-stamp it and return it to me via the bearer of this letter

If you have any questions, please do not hesitate to contact me

Yours truly,



Clarke W DuBose

CWD/kg

Enclosure

cc Thomas W Winslow, Esq
J Edward Bell, III Esq
John S Nichols, Esq

RECEIVED

SEP - 2 2011

S C Supreme Court



BLUESTEIN NICHOLS THOMPSON DELGADO LLC
ATTORNEYS AT LAW

Margaret Miles Bluestein
John Shannon Nichols
Stacy Elizabeth Thompson
John Dennis Delgado
Allison Paige Sullivan
Ashley Trout Thompson

August 31, 2011

RECEIVED

SEP 01 2011

S.C. SUPREME COURT

The Honorable Daniel E. Shearouse
Clerk
South Carolina Supreme Court
Post Office Box 11330
Columbia, South Carolina 29211

RE Kareem J. Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Iyanna Graves v. CAS Medical Systems, Inc.
Case No. 08-CP-38-826

Dear Mr. Shearouse:

I am in receipt of your letter dated August 29, 2011, advising that the above case will likely be reached during the November 2011 term of Court. Please be advised that I have no conflicts.

Thank you for your attention to this matter. If you need anything further, please do not hesitate to contact me. With kind regards, I am

Sincerely,

John S. Nichols
BLUESTEIN, NICHOLS, THOMPSON &
DELGADO, LLC

/awh

Enclosures

cc J. Edward Bell, III, Esquire (Counsel for Appellants)
Clarke W. Dubose, Esquire (Counsel for Respondent)
Sara Spruill, Esquire (Counsel for Respondent)



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
CLERK OF COURT
BRENDA F. SHEALY
DEPUTY CLERK

P.O. BOX 11330
COLUMBIA, S.C. 29211
PHONE NO. 734 1080

To John S. Nichols Esquire
From Daniel E. Shearouse
Date August 29, 2011
RE November Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the November 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

Court will meet the days of November 1, 2, 3, 15, and 16. Please notify this office in writing prior to September 6, 2011, as to any scheduling conflicts for the November term and any changes or additions of counsel that should be made to the record for the purpose of argument. If you do have a scheduling conflict, please advise as to the specific nature of the conflict.

Graves, Kareem v. CAS Medical



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
CLERK OF COURT
BRENDA F. SHEALY
DEPUTY CLERK

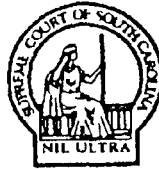
P.O. BOX 11330
COLUMBIA, S.C. 29211
PHONE NO. 734 1080

To J. Edward Bell III Esquire
Thomas William Winslow Esquire
From Daniel E. Shearouse
Date August 29, 2011
RE November Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the November 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

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Graves, Kareem v. CAS Medical



The South Carolina Supreme Court

DANIEL E. SHEAROUSE
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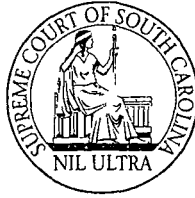
P.O. BOX 11330
COLUMBIA, S.C. 29211
PHONE NO. 734 1080

To: Clarke W. DuBose Esquire
Sarah Spruill Esquire
From: Daniel E. Shearouse
Date: August 29, 2011
RE: November Preliminary List

Pursuant to the provisions of Rule 216 of the South Carolina Appellate Court Rules, this is to advise that the following case(s) will probably be reached for hearing at the November 2011 term of the South Carolina Supreme Court. Our records indicate that you are counsel of record in one or more of these case(s).

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Graves, Kareem v. CAS Medical



The Supreme Court of South Carolina

DANIEL E. SHEAROUSE
CLERK OF COURT

BRENDA F. SHEALY
CHIEF DEPUTY CLERK

POST OFFICE BOX 11330
COLUMBIA, SOUTH CAROLINA 29211

(803) 734 1080

FAX (803) 734 1499

August 18, 2011

John S. Nichols, Esquire
Bluestein, Nichols, Thompson and Delgado, LLC
P O Box 7965
Columbia, SC 29202

Re Graves, Kareem v CAS Medical

Dear Counsel

The following Order has been endorsed on your Motion for Leave to File a Brief as Amici Curiae by Law Professors in the above entitled case on appeal

"Motion granted

s/ Jean H. Toal C J
For the Court

August 18, 2011 "

By copy of this letter we are advising all counsel of record any reply to the amici curiae brief should be served and filed within fifteen (15) days of the date of this letter

Very truly yours,

Daniel E. Shearouse
DS

CLERK

DES/dmh

Graves, Kareem v CAS Medical

Page Two

August 18, 2011

cc J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
Clarke W DuBose, Esquire
Sarah Spruill, Esquire

**THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS**

APPEAL FROM ORANGEBURG COUNTY
Circuit Court of Common Pleas
Hon James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES and TARA GRAVES, individually and
as duly appointed personal representatives of the
ESTATE OF INDIA IYANNA GRAVES,

Plaintiffs/Appellants

vs

CAS MEDICAL SYSTEMS, INC ,

Defendant/Respondent

**MOTION FOR LEAVE TO FILE A BRIEF
AS *AMICI CURIAE* BY LAW PROFESSORS
JOHN F VARGO, PAUL J ZWIER, II,
RICHARD W WRIGHT, FRANK J VANDALL,
STEVEN A SALTZBURG, JAY M FEINMAN,
THOMAS A EATON, AND CARL T BOGUS
IN SUPPORT OF THE PLAINTIFFS/APPELLANTS**

RECEIVED

MAY 18 2011

SC Court of Appeals

Motion granted

[Signature]

for the Court

August 18, 2011

John S Nichols
BLUESTEIN, NICHOLS, THOMPSON & DELGADO, LLC
1614 Taylor St , PO Box 7965
Columbia, South Carolina 29202
803-779-7599, 803-779-8995 FAX
jsnichols@BNTDlaw.com

Counsel for Amicus Curiae

**MOTION FOR LEAVE TO FILE A BRIEF
AS *AMICI CURIAE***

Pursuant to Rule 213, SCACR, Professors of Law John F Vargo, Paul J Zwier, II, Richard W Wright, Frank J Vandall, Stephen A Saltzburg, Jay M Feinman, Thomas A Eaton, and Carl T Bogus, by and through undersigned counsel, respectfully move this Court for leave to allow them to conditionally file the attached brief as *amici curiae*

Rule 213 provides that “[a] brief of *amicus curiae* may be filed only by leave of the appellate court granted on motion, or at the request of the appellate court” and “[a] motion for leave shall identify the interest of the applicant and shall state the reasons why a brief of an *amicus curiae* is desirable ”

Professors Vargo, Zwier, Wright, Vandall, Saltzburg, Feinman, Eaton, and Bogus are law professors who research and have written more than several dozen books, multi-volume treatises, and law review articles on torts, products liability, and evidence, subjects that are relevant to the issues of circumstantial evidence that lie at the heart of the instant appeal in this case. They teach (or have taught) at the Chicago-Kent College of Law of the Illinois Institute of Technology, the Emory University School of Law, the Indiana University Law School, the Roger Williams University School of Law, Rutgers (The State University of New Jersey), School of Law at Camden, the University of Georgia Law School, and the University of Virginia Law School.¹ They also have served as Advisors to the American Law Institute (“ALI”) on various pertinent RESTATEMENTS OF LAW, as well as Advisors to the American Bar Association and the U S

¹ The views expressed in this brief are those of the individual *amici* and their law school affiliations are included for identification purposes only

Judicial Conference Advisory Committee on the Federal Rules of Evidence The individual *curriculum vita* of each *amicus* is summarized in Appendix A to the attached conditional brief

Amici have no stake in the outcome of the lawsuit at bar and they have not been compensated for their work on the attached conditional brief They do, however, have a very keen interest in the proper development, exposition, and application of legal principles, rules, and precedents regulating the use and development of tort and evidence law in state and federal courts, an interest that they expressed long before this case commenced *Amici* believe this Court's decision in this matter very likely will have a significant impact on the development of the law of torts and evidence in this State and, indeed, may well have a substantial effect on the development of the law on those subjects throughout the nation

CONCLUSION

For the reasons stated above, Law Professors John F Vargo, Paul J Zwier, II, Richard W Wright, Frank J Vandall, Stephen A Saltzburg, Jay M Feinman, Thomas A Eaton, and Carl T Bogus respectfully urge this Court to grant this motion, and to accept their attached conditional brief *amici curiae* for filing

Respectfully submitted this th18 day of May, 2011



John S. Nichols
BLUESTEIN, NICHOLS, THOMPSON & DELGADO, LLC
1614 Taylor St
PO Box 7965
Columbia, South Carolina 29202
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jnichols@BNTDlaw.com

Counsel of Record for Amicus Curiae

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Circuit Court of Common Pleas

Hon James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

RECEIVED
MAY 18 2011

KAREEM J GRAVES and TARA GRAVES, individually
and as duly appointed personal representatives of the
ESTATE OF INDIA IYANNA GRAVES,

SC Court of Appeals
Plaintiffs/Appellants,

vs

CAS MEDICAL SYSTEMS, INC ,

Defendant/Respondent

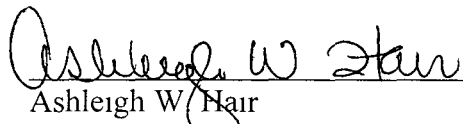
PROOF OF SERVICE

The undersigned hereby certifies that on the date indicated below she served counsel of record with a copy of the *Motion for Leave* and *Brief of Amicus Curiae* by mailing copies of the same by United States Mail with first class postage prepaid to the following addresses

Clarke W Dubose, Esquire
Sara Spruill, Esquire
Hanysworth Sinkler Boyd, P A
Post Office Box 11889
Columbia, South Carolina 29211-1889
(Attorneys for Respondent)

J Edward Bell, III, Esquire
Thomas W Winslow, Esquire
The Bell Legal Group, LLC
232 King Street
Georgetown, South Carolina 29442
(Attorneys for Appellants)

May 18, 2011


Ashleigh W Hair
Paralegal
BLUESTEIN, NICHOLS, THOMPSON
& DELGADO, LLC

THE STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

APPEAL FROM ORANGEBURG COUNTY
COURT OF COMMON PLEAS
JAMES C WILLIAMS, JR , CIRCUIT COURT JUDGE

CASE NO 08-CP-38-826

RECEIVED
MAY 31 2011
SC Court of Appeals

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

APPELLANTS,

vs

CAS MEDICAL SYSTEMS, INC

RESPONDENT

**RETURN OF CAS MEDICAL SYSTEMS, INC TO MOTION FOR LEAVE TO FILE A
BRIEF AS AMICUS CURIAE BY LAW PROFESSORS JOHN F VARGO, PAUL J
ZWIER, II, RICHARD W WRIGHT, FRANK J VANDALL, STEVEN A SALTZBURG,
JAY M FEINMAN, THOMAS A EATON, AND CARL T BOGUS¹ IN SUPPORT OF
THE PLAINTIFFS/ APPELLANTS**

CAS Medical Systems, Inc ("CAS") files this return to the motion for leave to file an amicus brief submitted by the Law Professors. CAS objects to the motion because, among other problems, the sponsors of the proposed amicus brief have no interest in the case. Moreover, the brief will not assist the Court in resolving this matter, omits, misstates, or overstates facts important to the arguments raised, fails to cite to the Record on Appeal, and argues a point the appellate court may not reach in making its decision. CAS believes that the motion should be denied.

¹ Collectively referred to as Law Professors

ARGUMENT

Rule 213, SCACR, provides that a motion for leave to file an amicus brief “shall identify the interest of the applicant and shall state the reasons why a brief of an amicus curiae is desirable.” Here, the Law Professors concede they have no stake in this action. Further, they do not practice law or teach here in South Carolina. Instead, the interest they state is “in the proper development, exposition, and application of legal principles, rules, and precedents regulating the use and development of tort and evidence law in state and federal courts.” A review of the proposed brief reveals the Law Professors’ real agenda is for South Carolina to adopt the position of the Restatement (Third) of Torts: Products Liability § 3, relating to proof required for proving a products liability claim. This Court is well-equipped to make its own determinations as to the state of the law in South Carolina. Therefore, the proposed brief submitted by the Law Professors adds nothing to the equation, particularly given their admitted lack of interest in this case.

Additionally, the Law Professors’ proposed brief spins its own version of the facts in this case, without citation to the Record on Appeal. This violates Rule 213, SCACR, which directs that amicus briefs are to follow the same rules as those required for the briefs of the parties, which would include citation to the Record on Appeal as required by Rule 211(b)(1), SCACR. Moreover, the Record on Appeal does not support several “factual” statements made by and inferences drawn by the Law Professors, even for purposes of what may be considered at the summary judgment stage. For example, the Law Professors argue that an electrostatic discharge (“ESD”) issue with the monitors that resulted in a recall in 2002 was evidence of the problem with the Graves’ monitor. This argument ignores the opinions of Appellants’ own experts, who dismissed this issue as not relevant. Expert Daugherty, for example, answered a question about

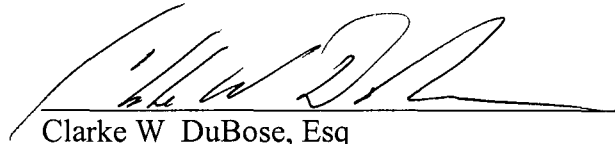
the relevance of ESD as follows “No, that was a hardware problem, and I think the current problem is more likely to be software” Daugherty Deposition, Record on Appeal at 848, lns 11-16 In the record below there is also deposition testimony from plaintiffs’ expert Lively as to the irrelevance of the ESD problem and recall, but because Appellants did not argue the ESD issue was an issue in this case, these pages of the Lively deposition were not made part of the Record on Appeal While this and other factual errors are likely based on a misunderstanding of the voluminous record, they are the underpinnings of the arguments presented in the proposed amicus brief The arguments should not be allowed because their factual underpinnings are unsound

Further, the Law Professors’ proposed brief focuses on the defective product aspect of the case but fails to reference the appellants’ complete lack of proof of causation If this Court affirms the trial court’s determination that appellants failed to present proof as to proximate cause, as CAS believes it will, it is unlikely to reach the issues raised in the proposed amicus brief As argued by CAS in its respondent’s brief, the trial court correctly granted summary judgment based on the record before it and South Carolina law

CONCLUSION

For these reasons, CAS opposes the Law Professors’ motion for leave to file an amicus brief in this case In the alternative, should the Court grant the Law Professors’ motion, CAS asks that it be given 45 days to respond to the Law Professors’ proposed brief given the length

and expansive nature of the proposed amicus brief, which is fifty pages in length, exclusive of appendices

A handwritten signature in black ink, appearing to read 'Clarke W. DuBose', is positioned above a horizontal line.

Clarke W DuBose, Esq

Sarah Spruill, Esq

HAYNSWORTH SINKLER BOYD, P A

1201 Main Street – 22nd Floor (29201)

P O Box 11889

Columbia, SC 29211-1889

(803) 779-3080

(803) 765-1243 (FAX)

cdubose@hsblawfirm com

sspruill@hsblawfirm com

Attorneys for Respondent

May 31, 2011

THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

RECEIVED
MAY 31 2011
SC Court of Appeals

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

vs

CAS MEDICAL SYSTEMS, INC

Respondent

CERTIFICATE OF SERVICE

I do hereby certify that I have this 31st day of May, 2011, caused the foregoing **Response to Motion** to be served via U S mail, postage prepaid, on Appellants' counsel of record at the address shown below

Thomas W Winslow, Esq
J Edward Bell, III, Esq
Law Office of J Edward Bell LLC
P O Box 2590
Georgetown, SC 29442

John S Nichols, Esq
Bluestein, Nichols, Thompson &
Delgado, LLC
PO Box 7965
Columbia, SC 29202


Clarke W DuBose, Esq
Haynsworth Sinkler Boyd, P A
P O Box 11889
Columbia, SC 29211-1889

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas

Hon James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

RECEIVED
JUN 07 2011
SCC Court of Appeals

KAREEM J GRAVES and TARA GRAVES, individually
and as duly appointed personal representatives of the
ESTATE OF INDIA IYANNA GRAVES,

Plaintiffs/Appellants,

vs

CAS MEDICAL SYSTEMS, INC ,

Defendant/Respondent

**REPLY TO RETURN OF CAS MEDICAL SYSTEMS INC
TO MOTION FOR LEAVE TO FILE A
BRIEF OF *AMICUS CURIAE* BY LAW PROFESSORS**

Pursuant to Rule 240(f), SCACR, *Amici* file the following Reply to the Return of CAS Medical Systems, Inc (“CAS”) to the Motion for leave to file a Brief of *Amicus Curiae* by the named law professors For the reasons stated, the Court should allow the brief and permit CAS to raise its points by filing a brief in response

I

CAS initially objects because “the sponsors of the proposed amicus brief have no interest in the case ” (Return, p 1) CAS contends that because the Law Professors “have no stake in this action” and “do not practice law or teach here in South Carolina,” the Court should reject the brief These arguments should not be persuasive

The purpose of an *amicus curiae* brief is to assist the Court where a particular case involves an issue of public interest. As the United States District Court stated in *Alexander v Hall*

Amicus curiae is a Latin phrase for “friend of the court” as distinguished from an advocate before the court. *Allen v County School Board of Prince Edward County*, 28 F R D 358 (E D Va 1961), *Clark v Sandusky*, 205 F 2d 915 (7th Cir 1953). **It serves only for the benefit of the court, assisting the court in cases of general public interest**, *Williams v Georgia*, 349 U S 375, 75 S Ct 814, 99 L Ed 1161 (1955), *The Claveres*, 264 F 276 (2d Cir 1920), *Moffat Tunnel Improvement Dist v Denver & S L Ry Co*, 45 F 2d 715 (10th Cir 1930), *cert denied*, 283 U S 837, 51 S Ct 485, 75 L Ed 1448, **by making suggestions to the court**, *Clark v Sandusky*, *supra*, *City of Winter Haven Fla v Gillespie*, 84 F 2d 285 (5th Cir 1936), *cert denied sub nom, Hartridge-Cannon Co v Gillespie*, 299 U S 606, 57 S Ct 232, 81 L Ed 447 (1936), **by providing supplementary assistance to existing counsel**, *Strasser v Doorley*, 432 F 2d 567 (1st Cir 1970), **and by insuring a complete and plenary presentation of difficult issues so that the court may reach a proper decision**, *Robinson v Lee*, 122 F 1010 (C C D S C 1903), *affirmed*, 196 U S 64, 25 S Ct 180, 49 L Ed 388 (1904), *Banco Nacional de Cuba v Sabbatino*, 307 F 2d 845 (2d Cir 1962), *reversed on other grounds*, 376 U S 398, 84 S Ct 923, 11 L Ed 2d 804 (1964).

An *amicus curiae* is not a party to the litigation, *Clark v Sandusky*, *supra*, and therefore does not necessarily represent the views or interests of either party. *Brown v Wright*, 137 F 2d 484 (4th Cir 1943), *Pueblo de Taos v Archuleta*, 64 F 2d 807 (10th Cir 1933). Since an *amicus* does not represent the parties but participates only for the benefit of the court, it is solely within the discretion of the court to determine the fact, extent, and manner of participation by the *amicus*. *Northern Securities Co v United States*, 191 U S 555, 24 S Ct 119, 48 L Ed 299 (1903), *Ginsburg v Black*, 192 F 2d 823 (7th Cir 1951), *cert denied*, 343 U S 934, 72 S Ct 770, 96 L Ed 1342 (1952), *Petition of Oskar Tiedemann and Co*, 183 F Supp 129 (D Del 1961), *affirmed*, 289 F 2d 237 (3d Cir 1961), *cf United States v Shubert*, 305 F Supp 1288 (S D N Y 1969), *McLeod v General Electric Co*, 257 F Supp 690 (S D N Y 1966), *affirmed*, 385 U S 533, 87 S Ct 637, 17 L Ed 2d 588 (1967), *Division 1287 Amal Ass'n of Street Elec Ry & Motor Employees of America v Dalton*, 206 F Supp 629 (W D Mo 1962).

64 F R D 152, 155 (D S C 1974) (bold added), see also *State v Ross*, 863 A 2d 654, 674 (Conn 2005) (the orthodox view of *amicus curiae* was, and is, that of an impartial friend of the court –

not an adversary party in interest in the litigation), *United States v State of Mich* , 940 F 2d 143, 164-165 (6th Cir 1991) (Over the years courts have departed from the orthodoxy of *amicus curiae* as an impartial friend of the court and have recognized a very limited adversary support of given issues through brief and/or oral argument)

The brief filed by the Law Professors falls squarely within this public purpose. An *amicus curiae* is never a party who has a “stake in the action,” but is a third party who brings a unique and hopefully helpful perspective to the case. It is because the *amici* “have no interest in the case” that they must seek to appear as a friend of the court. Those persons with an interest in the case, or a “stake in the action,” are the parties who have already appeared and filed a Brief of Appellant or Brief of Respondent.

Indeed, the fact that the Law Professor amici are disinterested is a virtue, not a vice, as it enhances the credibility and usefulness of their views. This is precisely the reason why the South Code of Judicial Conduct not only permits courts to passively accept the filing of a brief but expressly encourages courts to actively solicit such briefs. Thus, the official Commentary to South Carolina Code of Judicial Conduct explains that

An appropriate and often desirable procedure for a court to obtain the advice of a disinterested expert on legal issues is to invite the expert to file a brief *amicus curiae*.

Commentary, Canon 3-B(7)(e), CJC, Rule 501, SCACR. This Court need not and ought not spurn what the Code of Judicial Conduct recommends.

Furthermore, one need not be licensed to practice in South Carolina or teach law in South Carolina to be able to analyze what laws apply, or perhaps should apply, in this State and comment in such a way as to assist this Court. This is why our Supreme Court often cites professors of law who reside and teach in other jurisdictions. *See, e g* , *Gignilliat v Gignilliat Savitz & Bettis L L P* , 385 S C 452, 459, 684 S E 2d 756, 758 (2009) (citing Professor William

Prosser, Dean of the College of Law at University of California (Berkeley) from 1948 to 1961), *Collins Entm t Corp v Coats & Coats Rental Amusement*, 368 S C 410, 415, 629 S E 2d 635, 638 (2006) (citing Professor Robert J Harris of the University of Michigan Law School), *Stone v Roadway Express*, 367 S C 575, 627 S E 2d 695 (2006) (citing Professor Arthur Larson of the Duke Law School), *Kiriakides v Atlas Food Systems & Services Inc*, 343 S C 587, 541 S E 2d 257 (2001) (citing Professor Sandra K Miller of Widener University) This Court has done the same *State v Reid*, 383 S C 285, 679 S E 2d 194 (Ct App 2009) (citing Professor Joshua Dressler of the Ohio State University's Moritz College of Law), *Samples v Mitchell*, 329 S C 105, 495 S E 2d 213 (Ct App 1997) (citing to Professor James William Moore of Yale University School of Law)

The Court should permit these Law Professors, who have a particular perspective described in the Motion and Brief, to assist this Court as the Court addresses the law that controls these issues

II

CAS next contends the Court should reject the Brief because the Brief recites the facts without citation to the Record in violation of Rules 211(b)(1) and 213, SCACR (Return, p 2) Again, this argument should not be persuasive

The parties have each filed briefs on the merits before the Court and those briefs outline the facts with citation to the Record on Appeal (Brief of Appellant pp 3-12, Brief of Respondent pp 5-16) The Court will rely upon those briefs to verify the facts The point of the Brief of *Amicus Curiae* is to provide this Court with additional authority and points of view for the

Court's benefit. Those points are made in the presentation of Argument in pages 14 through 50 of the Brief of *Amicus Curiae*. The failure to give citations to the Record does not affect the effectiveness of the Brief to assist this Court in deciding the legal issues before it.

The Court should reject CAS's argument and accept the Brief for filing.

III

CAS also contends that the factual "underpinnings" of the Brief of *Amicus Curiae* are "unsound" and "based on a misunderstanding of the voluminous record." (Return p. 3). Again, the Court will be able to sort through the facts as stated by the parties and contained in the Record on Appeal. The Professors disagree that the facts as stated in the brief are "unsound" so as to taint the legal arguments presented therein. The purpose of the Brief of *Amicus Curiae* – to assist the Court in describing and applying the correct law to the case – is not diminished because the facts recited therein may not be entirely accurate or complete.

The Court should reject CAS's argument and accept the Brief for filing.

IV

Finally, CAS contends that since this Court will likely "affirm the trial court's determination that appellants failed to present proof as to proximate cause," then the Court is "unlikely to reach the issues raised in the proposed *amicus* brief." (Return p. 3). Of course, CAS is taking a presumptuous view of the case in asking this Court to reject the Brief of *Amicus Curiae* before the Court has even had a chance to review the case.

This Court may well agree with CAS, and determine the issue of proximate cause in

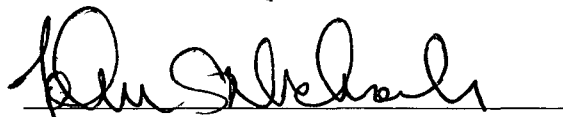
CAS's favor so as to be outcome determinative. However, until that determination is made, the Court must still review the issue of whether the trial court inappropriately applied the law of circumstantial evidence. This is the very issue the Brief of *Amicus Curiae* is intended to assist. The Law Professors contend that the Court would benefit from the assistance of a scholarly brief describing the law in South Carolina and trends around the country.

The Court should reject CAS's argument and accept the brief for filing.

CONCLUSION

This Court should accept the Brief of *Amicus Curiae* filed by the Law Professors. In the event the Court accepts the Brief, the Law Professors have no objection to CAS's request for 45 days to file a brief in response.

Respectfully submitted,



John S. Nichols

Counsel of Record for Amicus Curiae

BLUESTEIN, NICHOLS, THOMPSON & DELGADO,
LLC

PO Box 7965

Columbia, South Carolina 29202

803-779-7599

803-779-8995 FAX

jsnichols@BNTDlaw.com

ATTORNEY FOR *AMICUS CURIAE* PROFESSORS OF
LAW JOHN F. VARGO, PAUL J. ZWIER, II, RICHARD
W. WRIGHT, FRANK J. VANDALL, STEVEN A.
SALTZBURG, JAY M. FEINMAN, THOMAS A.
EATON, AND CARL T. BOGUS

June 7, 2011

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Circuit Court of Common Pleas

Hon James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES and TARA GRAVES, individually
and as duly appointed personal representatives of the
ESTATE OF INDIA IYANNA GRAVES,

Plaintiffs/Appellants,

vs

CAS MEDICAL SYSTEMS, INC

Defendant/Respondent

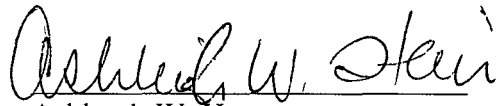
PROOF OF SERVICE

The undersigned hereby certifies that on the date indicated below she served counsel of record with a copy of the *Reply to Return of CAS Medical Systems Inc to Motion for Leave to File a Brief of Amicus Curiae by Law Professors* by mailing copies of the same by United States Mail with first class postage prepaid to the following addresses

Clarke W Dubose, Esquire
Sara Spruill Esquire
Hanysworth Sinkler Boyd, P A
Post Office Box 11889
Columbia, South Carolina 29211-1889
(Attorneys for Respondent)

J Edward Bell, III, Esquire
Thomas W Winslow, Esquire
The Bell Legal Group, LLC
232 King Street
Georgetown, South Carolina 29442
(Attorneys for Appellants)

June 7, 2011


Ashleigh W Hair
BLUESTEIN, NICHOLS, THOMPSON
& DELGADO, LLC



BLUESTEIN NICHOLS THOMPSON DELGADO LLC
ATTORNEYS AT LAW

Margaret Miles Bluestein
John Shannon Nichols
Stacy Elizabeth Thompson
John Dennis Delgado
Allison Paige Sullivan
Ashley Trout Thompson
Blake Alexander Hewitt

June 7, 2011

OF COUNSEL

O Eugene Powell Jr

VIA HAND DELIVERY

The Honorable Tanya Gee
Clerk
South Carolina Court of Appeals
Post Office Box 11629
Columbia South Carolina 29211

RECEIVED
JUN 07 2011
SC Court of Appeals

RE Kareem J Graves and Tara Graves individually and as duly appointed personal representatives of the Estate of India Iyanna Graves v CAS Medical Systems, Inc
Case No 08-CP-38-826

Dear Ms Gee

Please find enclosed for filing the original and seven (7) copies of the reply to the return of the motion requesting leave to file the *amicus* brief in regards to this case I have also enclosed a proof of service on counsel of record Please return the additional filed copy to me via our courier

Thank you for your attention to this matter If you have any questions or need any additional information please do not hesitate to contact me

Sincerely

Ashleigh W Hair
Paralegal to John S Nichols
BLUESTEIN NICHOLS, THOMPSON &
DELGADO LLC

/awh

Enclosures

cc J Edward Bell III Esquire (Counsel for Appellants)
Clarke W Dubose Esquire (Counsel for Respondent)
Sara Spruill Esquire (Counsel for Respondent)

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, PA.

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CLARKE W DUBOSE
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EMAIL cdubose@hsblawfirm.com

May 31, 2011

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426'
HSB File No 08965 0013

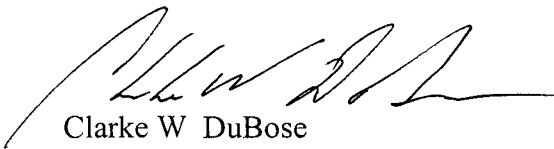
Dear Ms Gee

I enclose an original and six copies of the Return of CAS Medical Systems, Inc to Motion for Leave to File a Brief as Amicus Curiae by Law Professors John F Vargo, Paul J Zwier, II, Richard W Wright, Frank J Vandall, Steven A Saltzburg, Jay M Feinman, Thomas a Eaton, and Carl T Bogus in Support of the Plaintiffs/Appellants

By copy of this letter, I am serving a copy of the Return on counsel for the other parties to this case

If you have any questions, please call me

Yours truly,



Clarke W DuBose

CWD/lhg

Enclosure

cc J Edward Bell, III, Esq
Thomas W Winslow, Esq
John S Nichols, Esq

Columbia 1514264 v 1

RECEIVED
MAY 31 2011
SC Court of Appeals



BLUESTEIN NICHOLS THOMPSON DELGADO LLC
ATTORNEYS AT LAW

Margaret Miles Bluestein
John Shannon Nichols
Stacy Elizabeth Thompson
John Dennis Delgado
Allison Paige Sullivan
Ashley Trout Thompson

May 18, 2011

VIA HAND DELIVERY

The Honorable Tanya Gee
Clerk
South Carolina Court of Appeals
Post Office Box 11629
Columbia South Carolina 29211

RECEIVED
MAY 18 2011
SC Court of Appeals

RE Kareem J Graves and Tara Graves individually and as duly appointed personal representatives of the Estate of India Lyanna Graves v CAS Medical Systems Inc
Case No 08-CP-38-826

Dear Ms Gee

I am assisting a group of law professors in filing the necessary documents to request permission from the Court to file a brief as *amici curiae* in support of the Plaintiffs/Appellants in this case

The original and six (6) copies of the motion requesting leave to file the *amicus* brief are enclosed along with the original and fifteen (15) copies of the proposed *amicus* brief for conditional filing I have also enclosed a proof of service on counsel of record and a check in the amount of \$25 00 for filing the motion Please return the additional filed copy of the brief to me via our courier

Thank you for your attention to this matter If you have any questions or need any additional information please do not hesitate to contact me

Sincerely,

John S. Nichols
BLUESTEIN NICHOLS THOMPSON &
DELGADO LLC

JSN/awh

Enclosures

cc J Edward Bell, III, Esquire (Counsel for Appellants)
Clarke W Dubose, Esquire (Counsel for Respondent)
Sara Spruill, Esquire (Counsel for Respondent)

The Supreme Court of South Carolina

Kareem J Graves and Tara
Graves, individually and as
duly appointed personal
representatives of the Estate of
India Iyanna Graves, Appellants

v

CAS Medical Systems, Inc , Respondent

The Honorable James C Williams, Jr
Richland County
Trial Court Case No 2008-CP-38-00826

ORDER

Pursuant to Rule 204(b) of the South Carolina Appellate Court Rules, this appeal is hereby certified for review by the South Carolina Supreme Court. Upon receipt of this order, the Court of Appeals is hereby directed to forward the case file, all records and briefs and any exhibits on file to this Court.

IT IS SO ORDERED



FOR THE COURT C J

Columbia, South Carolina

July 26, 2011

cc J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
Clarke W DuBose, Esquire
John S Nichols, Esquire
The Honorable Tanya Gee

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, PA

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CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

January 7, 2011

VIA HAND DELIVERY

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426

Dear Ms Gee

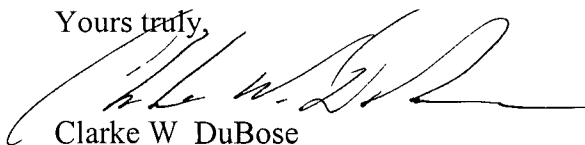
Enclosed in connection with the above-referenced matter are fifteen bound copies and one unbound copy of an Appendix to Record on Appeal, which includes the Consent to Supplement Record on Appeal and a Certificate of Service

I have also enclosed an extra bound copy of the Appendix and asked that you file-stamp it and return it to me via the bearer of this letter

By copy of this letter, we are serving a copy of the Appendix upon counsel for Appellants

If you have any questions, please do not hesitate to contact me

Yours truly,



Clarke W DuBose

CWD/kg

Enclosures

cc (w/enclosure)
Thomas W Winslow, Esq

RECEIVED

JAN 07 2011

SC Court of Appeals

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, PA.

ATTORNEYS AND COUNSELORS AT LAW

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CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

December 22, 2010

VIA HAND DELIVERY

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426

RECEIVED
DEC 22 2010
SC Court of Appeals

Dear Ms Gee

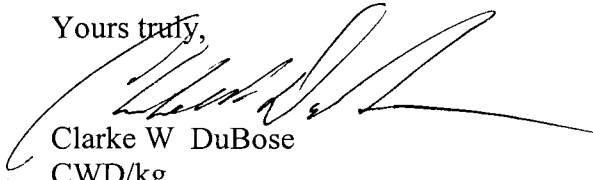
Enclosed in connection with the above-referenced matter are fifteen bound copies and one unbound copy of the Final Brief of Respondent, along with the Certificate of Counsel and Certificate of Service

I have also enclosed an extra bound copy of the Final Brief of Respondent and asked that you file-stamp it and return it to me via the bearer of this letter

By copy of this letter, we are serving a copy of the Final Brief of Respondent upon counsel for Appellants

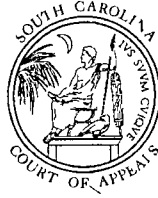
If you have any questions, please do not hesitate to contact me

Yours truly,


Clarke W DuBose
CWD/kg

Enclosures

cc (w/enclosure)
Thomas W Winslow, Esq



The South Carolina Court of Appeals

TANYA A GEE
CLERK

V CLAIRE ALLEN
DEPUTY CLERK

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1015 SUMTER STREET
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TELEPHONE (803) 734 1890
FAX (803) 734 1839
www.sccourts.org

November 23, 2010

J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Re Graves, Kareem v CAS Medical
2010161426

Dear Counsel

The following Order has been endorsed on your Extension Request for 20 days in the above entitled case on appeal

"Granted

John Cannon Few C J
For the Court

By s/ Claire V Allen
Deputy Clerk

November 23, 2010 "

Please be advised the Amended Record on Appeal and Appellant's Final Brief must be served and filed no later than December 20, 2010

Very truly yours,

V. Claire Allen, Deputy
CLERK

TAG/laf

cc Clarke W DuBose, Esquire

November 17, 2010

The Honorable Jeanette F Barber
Clerk, South Carolina Court of Appeals
Post Office Box 11629
Columbia, SC 29211

IN RE Kareem J Graves, et al, v CAS Medical Inc, et al
Civil Action No 08-CP-38-826

Dear Ms Barber

Please accept this letter as our request for an extension of twenty days within which to file the all Records on Appeal and Final Briefs We are requesting this extension in light of the recent order and in order to insert necessary documents into an amended Record on Appeal after respondents reviewed the served copy

Our check in the sum of \$25 00 is enclosed

The respondent has consented in writing to this extension

Thanking you for your courtesy and with kind regards, I am

Respectfully yours,



Thomas W Winslow

Enclosures

cc Mr Clarke W Dubose
Haynsworth Sinkler Boyd, P A
Attorneys at Law
Post Office Box 11889
Columbia, South Carolina 29211-1889

GRANTED
JOHN CANNON FEW, C J
FOR THE COURT

By V. Clave Allen
(Clerk) (Deputy Clerk)

FILED
RECEIVED 11/29/10
NOV 18 2010
SC Court of Appeals

~~12/13/10~~
~~12/13/10~~

11/29/10

12/20/10

12/20/10

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J EDWARD BELL III LLC

COLUMBIA

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Sinkler Boyd, P.A.

ATTORNEYS AND COUNSELORS AT LAW

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SARAH P. SPRUILL
DIRECT DIAL NUMBER 803 540 7854
EMAIL sspruill@hsblawfirm.com

November 9, 2010

The Honorable Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

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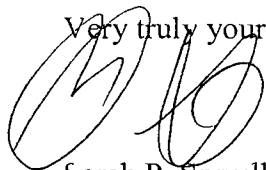
SC Court of Appeals

Re *Graves v CAS Medical Systems Inc*
Civil Action No 08-CP-38-826

Dear Ms Gee

Respondent CAS Medical Systems, Inc ("CAS") submits this letter in accordance with Rule 208(b)(7) SCACR. Since the initial briefs in this case were filed, this South Carolina Supreme Court has issued *Harris Teeter Inc v Moore & Van Allen PLLC* Op No 26887 (S C Sup Ct filed November 1, 2010) addressing the issue of sham affidavits. This case provides supplemental authority for CAS's Issue III, relating to the conflicting affidavits submitted by Plaintiffs' experts. A copy of the *Harris Teeter* opinion is attached for the Court's convenience.

Very truly yours,



Sarah P. Spruill

SPS:jcm

Enclosure

**THE STATE OF SOUTH CAROLINA
In The Supreme Court**

Harris Teeter, Inc , Appellant,

v

Moore & Van Allen, PLLC and W Howell
Morrison, Respondents

RECEIVED

NOV 10 2010

SC Court of Appeals

Appeal From Charleston County
George C James, Jr , Circuit Court Judge

Opinion No 26887
Heard February 18, 2010 – Filed November 1, 2010

AFFIRMED

A Camden Lewis Mary G Lewis and Ariail E
King all of Lewis & Babcock, of Columbia for
Appellant

G Trenholm Walker, Clayton B McCullough, and
Daniel S McQueeney Jr all of Pratt-Thomas &
Walker, of Charleston, for Respondents

JUSTICE KITTREDGE This is a legal malpractice action in which the trial court granted summary judgment to the law firm of Moore & Van Allen, PLLC and attorney W Howell Morrison (Respondents) We certified the appeal of Harris Teeter, Inc pursuant to Rule 204 (b), SCACR We affirm

I

STANDARD OF REVIEW

Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law See Rule 56(c) SCRCP, *see also Hancock v Mid-South Mgmt Co , Inc* , 381 S C 326, 330, 673 S E 2d 801, 803 (2009) ("[I]n cases applying the preponderance of the evidence burden of proof, the non-moving party is only required to submit a mere scintilla of evidence in order to withstand a motion for summary

judgment "), *David v McLeod Reg'l Med Ctr* , 367 S C 242, 247, 626 S E 2d 1 3 (2006) ("In determining whether any triable issues of fact exist, the court must view the evidence and all reasonable inferences that may be drawn from the evidence in the light most favorable to the non-moving party ") Having carefully reviewed the record under the appropriate standard, we find Respondents are entitled to judgment as a matter of law

II

FACTUAL/PROCEDURAL BACKGROUND

This claim arises from Respondents' representation of Harris Teeter in an arbitration proceeding concerning a lease dispute

A

In 1979, Harris Teeter leased property to operate a supermarket on East Bay Street in Charleston, South Carolina. The lease term was twenty-five years with five renewal options of five years each. The lease required Harris Teeter to pay base rent to the property owner in the amount of \$14,074 a month, or \$176,448 annually, as well as percentage rent if Harris Teeter's net sales exceeded \$16,400,000 annually. The 1979 lease was considered an under-market lease and thus favorable to Harris Teeter.

In 2001, East Bay Venture, LLC (EBV) purchased the property and became Harris Teeter's landlord. A dispute over lease terms promptly surfaced involving the following lease provisions, which required Harris Teeter to (1) insure the property for its "insurable value" with responsible insurance companies authorized to do business in South Carolina and (2) pay "all costs and expenses of every kind and nature whatsoever relating to the demised premises except rent interruption insurance, which shall be carried by the Landlord."

After acquiring the property, Marcus Durlach III, acting on behalf of EBV, met with officers from Harris Teeter regarding these lease provisions, specifically Harris Teeter's responsibility, if any, for certain insurance and environmental costs associated with EBV's purchase of the property. Following the meeting, Harris Teeter contacted an attorney in North Carolina it used for lease matters.

Over the next year, Durlach attempted to contact Harris Teeter numerous times on behalf of EBV seeking reimbursement for the expenses, but Durlach's communications were largely ignored. Durlach eventually wrote Harris Teeter on November 11, 2002, formally demanding reimbursement for the costs. Harris Teeter forwarded the letter to its North Carolina attorney, but Harris Teeter did not respond to EBV's demand.

On December 3, 2002, Durlach sent Harris Teeter a letter declaring it in default under the lease [1]. In response to this letter, Harris Teeter immediately retained a South Carolina law firm. This law firm advised Harris Teeter that it was not responsible for the disputed expenses and sent a letter to that effect to Durlach on December 30, 2002. During the cure period, however, no effort was made to cure any alleged default by, for example, paying the disputed expenses under protest. Durlach responded by terminating the lease on January 9, 2003 [2].

B

Following termination of the lease, Harris Teeter discharged that law firm and retained its third law firm, Respondents.

Respondents undertook efforts to rescind the lease termination, however, EBV's stance in negotiations was firm. EBV was unwilling to rescind the lease termination without concessions, most notably a substantial increase in base rent. Harris Teeter maintained the position throughout that EBV's posture was merely a pretext for EBV's desire to renegotiate the lease terms with Harris Teeter—for an increase in rent to reflect what EBV believed to be the true market value of the lease. Harris Teeter rejected EBV's April 28, 2003, offer of an increase to \$300,000 in annual base rent.

On May 13, 2003, Harris Teeter, through Respondents, paid EBV the disputed expenses under protest "reserving all rights for reimbursement as determined in the arbitration."

proceeding under the Lease " Respondents continued negotiations with EBV, but EBV refused to rescind the lease termination absent a substantial increase in the base rent On June 20 2003 EBV made its final offer a new fifteen-year lease with an annual base rent of \$475,000 for the first five years, \$500,000 annually for the second five-year period, and \$625,000 annually for the final five-year period Keith Rudemiller, Harris Teeter's vice president for real estate, forwarded EBV's offer to Harris Teeter president Fred Morganthall In a handwritten note accompanying the EBV offer, Rudemiller declared the offer "RIDICULOUS " Harris Teeter rejected the offer

C

The dispute proceeded to arbitration Respondent Howell Morrison of Moore & Van Allen represented Harris Teeter at the arbitration The parties agreed to select Lanneau Lambert as the arbitrator There were two issues before the arbitrator The first issue was whether Harris Teeter defaulted under the lease by failing to reimburse EBV for the costs associated in complying with the terms of the voluntary cleanup contract (VCC)[3] and obtaining flood insurance to cover Harris Teeter's \$250,000 deductible If the arbitrator answered this question in the affirmative the second inquiry was whether the breach was material The arbitrator rejected Harris Teeter's legal position and determined Harris Teeter had breached the lease and that the breach was material, thus terminating the lease

Harris Teeter fired Respondents and hired another law firm to file a motion for reconsideration While the reconsideration motion was pending, Harris Teeter and EBV settled the matter by agreeing to new lease terms, most notably a substantial increase in rent

D

Thereafter, Harris Teeter filed a complaint against Respondents, alleging causes of action for professional negligence, breach of contract and breach of fiduciary duty The circuit court granted summary judgment in favor of Respondents with respect to all claims only three of which Harris Teeter has pursued on appeal the claims that Respondents committed malpractice by failing to (1) introduce any evidence in regards to two *Kiriakides*^[4] factors, (2) advise Harris Teeter of the risk of lease termination, and (3) settle the case prior to arbitration [5]

III

LAW/ANALYSIS

In order to prevail in a cause of action for legal malpractice, the plaintiff must prove (1) the existence of an attorney-client relationship, (2) a breach of duty by the attorney, (3) damage to the client, and (4) proximate cause of the client's damages by the breach *Rydde v Morris*, 381 S C 643, 646, 675 S E 2d 431, 433 (2009) "In South Carolina attorneys are required to render services with the degree of skill care, knowledge, and judgment usually possessed and exercised by members of the profession " *Holy Loch Distribs , Inc v Hitchcock*, 340 S C 20, 26 531 S E 2d 282 285 (2000), and "[t]he standard to be applied in determining legal malpractice issues is statewide," *Smith v Haynsworth, Marion, McKay & Geurard*, 322 S C 433, 437-38, 472 S E 2d 612, 614 (1996) Finally, generally, a plaintiff in a legal malpractice action must establish this standard of care by expert testimony *Id* at 435, 472 S E 2d at 613

We summarily dispose of two of Harris Teeter's claims (1) Respondents failed to advise Harris Teeter of the risk of lease termination, and (2) Respondents failed to settle the case prior to arbitration

(1) Respondents failed to advise Harris Teeter of the risk of lease termination

The record flatly refutes any suggestion that Respondents failed to advise Harris Teeter of the risk of lease termination. On the contrary, the record demonstrates that Respondents provided Harris Teeter a candid assessment of the risk and consequences of lease termination.

On May 8, 2003, Respondents informed Julia Passmore, Harris Teeter's leased property manager, that Harris Teeter's legal position was not necessarily a "slam dunk." Respondents wanted to know if Harris Teeter was comfortable with the risk of "dispossession from the property." Respondents further warned Passmore "about the whims of arbitrators—and the consequences of termination." In Passmore's deposition, she acknowledged that Respondents were emphasizing "[t]hat we could lose the lease."

When Respondents candidly advised Harris Teeter of the realities of litigation and the prospect of losing the lease, Passmore accused Respondents of "sound[ing] wishey washey" in a May 14, 2003, email. There is no evidence to suggest Respondents failed to advise Harris Teeter of the risk of lease termination; instead, the record demonstrates precisely the opposite. In any event, the lease had been terminated by EBV before Respondents' representation of Harris Teeter.

(2) Respondents failed to settle the case prior to arbitration

The record also negates Harris Teeter's claim that Respondents failed to settle the case prior to arbitration. Instead, the record shows that Harris Teeter had no interest in settling. For example, Respondents provided Passmore a copy of the *Kiriakides* opinion. Passmore forwarded the *Kiriakides* opinion to Rudemiller. Passmore's handwritten note to Rudemiller stated "[t]his is a S.C. Supreme Court Case that our attorneys think is relevant in our East Bay situation." And, when, prior to arbitration, Respondents relayed EBV's final settlement offer to Harris Teeter's Rudemiller, he declared the offer "RIDICULOUS."

Furthermore, even Harris Teeter's primary expert, Mark Levick, opined that Harris Teeter's legal position was strong and the dispute should have proceeded to arbitration. The suggestion that there is evidence of malpractice for failing to settle the case prior to arbitration borders on frivolity.

(3) *Kiriakides*

We turn to Harris Teeter's remaining claim that Respondents committed malpractice by failing to introduce any evidence in regards to two of the *Kiriakides* factors. *Kiriakides*, 312 S.C. 271, 440 S.E.2d 364, is the controlling case in South Carolina for determining whether a tenant materially breached the terms of his lease agreement with a landlord so as to justify termination of the lease.

In *Kiriakides*, we held, "a lease may not be forfeited for a trivial or technical breach even when

the parties have specifically agreed that 'any breach' gives rise to the right of termination " *Id* at 275, 440 S E 2d at 366 Instead we stated "to justify forfeiture, the breach must be material, serious or substantial " *Id* In order to determine whether the breach was material, we announced the following five factor test

- (a) the extent to which the injured party will be deprived of the benefit which he reasonably expected,
- (b) the extent to which the injured party can be adequately compensated [by damages] for the part of that benefit of which he will be deprived,
- (c) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (d) the likelihood that the party failing to perform or to offer to perform will cure his failure, taking account of all the circumstances including any reasonable assurances,
- (e) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing

Id at 276, 440 S E 2d at 366-67 (citing Restatement (Second) of Contracts § 241 (1981))

Harris Teeter argues Respondents breached their standard of care by failing to present evidence with regards to the following two *Kiriakides* factors (1) the extent to which the injured party will be deprived of the benefit he reasonably expected and (2) the extent to which the party failing to perform or offer to perform will suffer forfeiture *Id* , 440 S E 2d at 366 We disagree

The case proceeded to arbitration after Harris Teeter rejected EBV's final settlement proposal In preparing for arbitration Respondents submitted a pre-hearing memorandum to the arbitrator In the memorandum, Respondents focused on whether Harris Teeter actually breached the lease, Durlach's motives for asserting a breach, and the materiality of any supposed breach Respondents then cited to *Kiriakides* the applicable case law to support their argument

Applicable South Carolina law is set forth in the case of *Kiriakides v United Artists Communications, Inc* , 312 S C 271, 440 S E 2d 364, 366 (1994) (Copy attached) This state's supreme court held therein that a landlord's right to terminate a commercial leasehold is not unlimited and that termination must be tempered by notions of equity and common sense The court found that, before a commercial landlord may evict, the default of the lease agreement must be material "[W]e hold that a forfeiture for a trivial or immaterial breach of a commercial lease should not be enforced " *Id* at 366 The *Kiriakides* court looked at the following factors

- (i) the extent to which the injured party will be deprived of the benefit which he reasonably expected
- (ii) the extent to which the injured party can be adequately

compensated by damages for the part of that benefit of which he will be deprived,

- (iii) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (iv) the likelihood that the party failing to perform or to offer to perform will cure his failure, taking account of all the circumstances including any reasonable assurances, and
- (v) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith dealing

Harris Teeter submits that the evidence as to each of these considerations weighs heavily in its favor and against the harsh remedy of termination

Harris Teeter comes to this proceeding having dealt in good faith and with clean hands. As such, it seeks equity from the Arbitrator as supported by the decision in *Kiriakides*. It has been forced to expend considerable amounts in attorneys' fees which it will never recover. It does, however, seek return of monies, plus interest that it has paid in protest to Landlord.

Respondents presented *Kiriakides* to the arbitrator, but made a tactical decision to focus on the materiality of the breach and not the precise extent of the cost of lease forfeiture to Harris Teeter [6]. Additionally, Respondents presented evidence concerning the value of the lease to Harris Teeter to the arbitrator and linked it to Durlach's motives for termination. Respondents' argument to the arbitrator included the following:

The issues that were the history of this situation, Mr. Durlach seems to suggest that he was given a corporate brush-off and not paid enough attention to -- or something. I think the testimony is that Harris Teeter is a very responsible corporate operation and responsive corporate operation. They communicated a number of different ways through a number of different people with their landlord. And that this effort -- I think the totality of this situation suggests that this effort to terminate is as much about this low market lease as it is about anything to do with alleged breaches.

Of course Mr. Durlach would like to bring Harris Teeter back to the table, when it has renewal options until 2025, to renegotiate what he would like to say is a market lease with the gun pointed at our head of termination otherwise. I mean, wouldn't anybody want to in that negotiating position?

So what we have now, we believe, is an effort by the landlord to take nonbreaches or -- or fairly debatable misunderstandings, differences of opinion about application, at best, applicable to him, application of ambiguous portions of this lease and to convert those to a reason to terminate.

And the law -- finally, the law is pretty clear in South Carolina since the *Kiriakides* case came down, South Carolina has made a clear decision since 1994 to join the majority of states who do not -- which do not permit a forfeiture of a leasehold interest for an immaterial breach of a commercial lease. The law is very clear now that -- as it is in most states -- that a breach must be material.

In some cases materiality is described just exactly as I described it a little while ago. The material expectation of a landlord in a lease agreement is to get his rent and to -- you know, in many states in these cases that talk about this law, they cite the equitable principle. Since South Carolina now imposes an equitable obligation on the trier of the fact, they cite the equitable principle that the law abhors a forfeiture, equity does abhor a forfeiture. There's no question about that under the law.

There is a federal case law in the Fourth Circuit that says in the liberally related rule of contracts that the law abhors a forfeiture and that, quote, contractual provisions for forfeiture are looked upon with disfavor by the Courts. *Galvin against Southern Hotels*. It's an old principle but it's new law in South Carolina that commercial leases are now imbued with principles of equity. This -- it's relative -- it's nine years old, but it's clearly the law.

And so we just ask you to do what you already know how to do, is to read a contract. You don't need me to tell you how to do that, but they can't always be read literally to the exclusion of all other concerns. They very seldom can. This one cannot. And we think that's what the landlord has done and we think it's for the sole purpose of getting us into a very vulnerable defensive position to renegotiate the contract, pure and simple. That's what we think it's about. And if we breached or we're in default, I believe it was immaterial, I submit it was immaterial, from immaterial matters, not going to the heart of the contract and not grounds for termination.

Although Respondents elected to emphasize the materiality of the breach, the record contains no support for Harris Teeter's contention that no evidence was presented as to the two disputed *Kiriakides* factors.

B

Proximate Cause

Even if Harris Teeter had produced a scintilla of evidence that Respondents breached the standard of care by not fully presenting all of the *Kiriakides* factors to the arbitrator, Harris Teeter's claim would fail for lack of proximate cause. The claim fails for lack of proximate cause because, regardless of the source of the arbitrator's knowledge, he was fully aware of the *Kiriakides* decision. In his written ruling, the arbitrator cited and considered all *Kiriakides* factors. Of particular concern to Harris Teeter was the factor dealing with "the extent to which a party failing to perform will suffer forfeiture." The following excerpt from the arbitrator's decision lays to rest any suggestion that he failed to consider the consequences of lease forfeiture.

While the Arbitrator is ever mindful that termination and forfeiture of the Lease is a drastic remedy and must be tempered by notions of equity and common sense, Harris Teeter's pattern of behavior and the resulting non-payment of sums owed under the Lease until the Lease was terminated justify EBV's actions. The numerous opportunities presented to Harris Teeter to timely address EBV's concerns and to cure its failure to pay sums due to Landlord under the Lease prior to termination (or to timely pay such sums in protest) simply cannot be ignored.

(Emphasis added) [7] Thus, any alleged failure by Respondents to present all *Kiriakides* factors was not the proximate cause of Harris Teeter's loss.

C

Harris Teeter relied on the deposition testimony of two experts, Levick and Charles Scarminach to defeat summary judgment. Even if we were to accept Harris Teeter's argument that Levick and Scarminach were qualified to render an expert opinion, we agree with the trial court that their deposition testimony failed to present evidence of a breach of the standard of care or a genuine issue of material fact regarding proximate cause. Harris Teeter apparently recognized the clear insufficiency of the Scarminach and Levick testimony, for it submitted post-deposition affidavits in an attempt to rescue its malpractice claims. The trial court properly characterized these post-deposition affidavits as "sham" affidavits. See *Cothran v. Brown*, 357 S.C. 210, 218, 592 S.E.2d 629, 633 (2004) (setting forth six considerations a court may use to determine if a post-deposition affidavit is a "sham affidavit").

Scarminach concluded that the Respondents had breached the standard of care—despite failing to establish the standard of care in his deposition. The correct standard of care is "the degree of skill, care, knowledge, and judgment usually possessed and exercised by members of the profession." *Holy Loch Distribs.*, 340 S.C. at 26, 531 S.E.2d at 285. Scarminach, however, did not testify as to this standard. Instead, when asked about the definition of standard of care upon which he relied to form his opinion, Scarminach replied, "It's my standard." He later clarified by stating that his standard was that "of someone reading this at the end of the case," or "that of a businessman's lawyer." Neither of these additional statements accurately presents the proper standard of care. Thus, Scarminach's conclusory statement that Respondents breached the standard of care does not create a genuine issue of material fact.

Furthermore, Scarminach did not testify that the Respondents' action satisfied the causation in fact requirement of proximate cause. *Oliver v. S.C. Dep't of Highways & Pub. Transp.*, 309 S.C. 313, 316, 422 S.E.2d 128, 130 (1992) (stating that proximate cause requires proof of causation in fact and legal cause) *id.* (stating that causation in fact is proved by showing that plaintiff's injury would not have occurred "but for" defendant's negligence). When asked if the case would have produced a different outcome had the Respondents not breached their standard of care, Scarminach hedged, "you never know because it's conjecture." Instead of stating that the Respondents' conduct most probably caused the outcome, Scarminach said, "had [Respondents] done these things, the percentage of success would have been greater." Thus, Scarminach's deposition did not establish that the Respondents' actions were the "but for" cause of Harris Teeter's loss.

Levick, on the other hand, testified the standard of care is a determination of what a "reasonably competent lawyer [would] do given the facts and situations they were handed."

This generic statement is true in the abstract, as it can be applied to any professional negligence claim. Yet this circular opinion, when combined with Levick's deposition testimony, does not create a genuine issue of fact as to a breach of the standard of care. Levick's statement merely begs the question and adds nothing to the analysis of the substantive legal malpractice claim.

Levick's deposition testimony reveals the basis of this legal malpractice claim—a bad result. Levick was questioned concerning the basis of his opinion of Respondents' malpractice. Instead, Levick embarked on an unsolicited and unfounded attack against the arbitrator and his integrity. Levick stated that if the arbitrator were "fair, there is not a way in the world that [he] could have come up with this decision." Levick further stated, "I don't think [the arbitrator] had a clue" and "what [Respondents] didn't communicate was who they were dealing with as an arbitrator."

When asked if Harris Teeter would have "won before the arbitrator if the case had been handled in some different fashion[.]" Levick acknowledged, "Obviously, it's speculation." We agree. But Levick's "speculation" admission forms only part of our reasoning for concluding that his testimony is not sufficient to survive summary judgment. Like the excellent trial judge, we have carefully reviewed the entirety of Levick's testimony. Levick speaks only in generalities when he opines the case was not "properly presented." Levick's generalities fall woefully short of our admissibility standards for experts in professional negligence cases. Therefore, we agree with the trial court that neither expert presented evidence to help Harris Teeter survive Respondents' motion for summary judgment.

D

Because Harris Teeter's malpractice claim seeks to establish the element of a breach of the standard of care through the arbitrator's adverse ruling, we address the relationship between a "bad result" and a professional malpractice claim. Harris Teeter lost in arbitration—and that bad result forms the core of Harris Teeter's malpractice allegation. Of course, any professional negligence claim involves a bad result. We reject as a matter of law any suggestion that a bad result is evidence of the breach of the standard of care. To do so would change the landscape of our malpractice law, for all professionals. We adhere to the principle that the exercise of a professional's judgment (and accompanying acts and omissions) must be considered at the time the professional service is rendered and not through the lens of hindsight.

In rejecting a hindsight analysis, the trial court found Respondents' actions were protected under the judgmental immunity rule, which has not been formally adopted in South Carolina. The judgmental immunity rule provides that "there can be no liability for acts and omissions by an attorney in the conduct of litigation which are based on an honest exercise of professional judgment." *Woodruff v. Tomlin*, 616 F.2d 924, 930 (6th Cir. 1980). In referring to the judgmental immunity rule as "a sound rule," the *Woodruff* court observed that "[o]therwise every losing litigant would be able to sue his attorney if he could find another attorney who was willing to second guess the decisions of the first attorney with the advantage of hindsight." *Id.* In assessing liability, a court should never measure a professional's performance through the lens of hindsight. Although an attorney may be liable for damages to a client for failure to act with a reasonable degree of skill and care, "[t]his does not mean, however, that an attorney acts as an insurer of the outcome of a case." *Crosby v. Jones*, 705 So. 2d 1356, 1358 (Fla. 1998).

Respondents made an informed judgment in their approach to the arbitration hearing. Respondents made a tactical and strategic decision to focus on whether Harris Teeter actually breached the lease and the materiality of the alleged breach. Respondents, specifically Howell Morrison, made a tactical decision not to emphasize the precise value (in dollar terms) of the under-market lease because the attorneys believed this could work to Harris Teeter's detriment. "In my judgment it would not have helped the presentation of the case to emphasize the under market lease that Harris Teeter held and in my view then, and still in my view, if we had spent time showing the Arbitrator emphasizing that we had a submarket lease, it was very much a two-edged sword that could have easily worked to our detriment."

Morrison made a judgment call concerning the presentation of the *Kiriakides* factors—a judgment call that was not unreasonable as a matter of law. Because the judgment call was reasonable as a matter of law (and consequently no question of fact is presented), there is no viable claim of malpractice. Morrison's judgment call falls squarely in the category of a "professional judgment made with reasonable care and skill." *Biomet Inc v Finnegan Henderson LLP*, 967 A 2d 662, 666.

Although the judgmental immunity rule correctly highlights the rejection of a hindsight analysis, Respondents' entitlement to summary judgment does not depend on our adoption of the rule. We therefore leave the question of adoption of the judgmental immunity rule for another day [8].

E

The practice of law is not an exact science. The practice of law involves the exercise of judgment based on the circumstances known and reasonably ascertainable at the time the judgment is rendered. "[A] lawyer shall exercise independent professional judgment and render candid advice." Rule 2.1, RPC, Rule 407, SCACR. The Rules of Professional Conduct are replete with the recognition that a lawyer cannot pursue every issue that arises in a case while effectively representing his or her client. To the contrary, the Rules recognize that in order to provide a client the best and most competent representation, a lawyer has the professional discretion to make a judgment call as to which legal theories are the strongest and will best serve the client's interest. See Rule 1.3 cmt. 1, RPC, Rule 407, SCACR ("A lawyer is not bound, however, to press for every advantage that might be realized for a client. For example, a lawyer may have authority to exercise professional discretion in determining the means by which a matter should be pursued"), *Hudson v Windholz*, 416 S.E.2d 120, 124 (Ga. 1992) (recognizing that "the tactical decisions made during the course of litigation require by their nature, that the attorney be given a great deal of discretion").

In retrospect, should Respondents have presented precise financial data to the arbitrator concerning the substantial boon of the under-market lease to Harris Teeter? Perhaps. But hindsight is not the measuring stick. A case can always be tried "better." Respondents made a considered judgment to focus on the merits of the alleged breach and particularly its materiality. As noted, that judgment call was not unreasonable as a matter of law. And as the arbitrator acknowledged, lease forfeiture was a "drastic remedy," as all understood that EBV wanted a new lease with market based rent and Harris Teeter wanted to preserve the 1979 lease.

Here, Respondents candidly warned Harris Teeter of the risk of lease termination, even to the point of Harris Teeter characterizing Respondents' legal candor as "wishey washey." Harris Teeter's flippant disregard of Respondents' candid warning mirrored its longstanding disregard

of EBV's inquiries and requests to honor the lease Harris Teeter went into arbitration with its eyes wide open regarding the risk Respondents exercised independent and reasonable professional judgment in choosing what they deemed a proper strategy in representing Harris Teeter's interest before an arbitrator highly skilled and knowledgeable in commercial real estate matters Because Respondents' judgment was not unreasonable as a matter of law, the trial court properly dismissed this malpractice claim

IV

CONCLUSION

We affirm the grant of summary judgment to Respondents

AFFIRMED

TOAL, C J , BEATTY, J , and Acting Justice James E Moore, concur HEARN, J , concurring in part and dissenting in part in a separate opinion

JUSTICE HEARN Respectfully, I concur in part and dissent in part I fully concur in the majority opinion to the extent that it affirms the circuit court's grant of summary judgment in favor of Respondents on the grounds they committed malpractice by failing to advise Harris Teeter of the risk of lease termination and by failing to settle the case before arbitration However, I part company with the majority and would reverse the circuit court's grant of summary judgment as to Harris Teeter's allegations that Respondents committed malpractice by failing to introduce any evidence in regards to the two *Kiriakides* factors

I

The single issue presented is whether Harris Teeter has presented sufficient evidence to survive summary judgment, I express no opinion as to what the outcome of this case would be after a trial on the merits Faithful to my understanding of the principles governing review of an order granting summary judgment as recently enunciated by this Court, my focus is only on whether Harris Teeter has presented a mere scintilla of evidence in support of its allegations of malpractice See *Hancock v Mid-S Mgmt Co* , 381 S C 326, 330 673 S E 2d 801, 803 (2009) ("[I]n cases applying the preponderance of the evidence burden of proof, the non-moving party is only required to submit a mere scintilla of evidence in order to withstand a motion for summary judgment ") This standard requires merely "the slightest amount of relevant evidence" on an issue to warrant denial of summary judgment *Black's Law Dictionary* 635 (3d pocket ed 2006) If this indeed is the standard, it must be applied in every case, including attorney malpractice cases

As the majority correctly recognizes, *Kiriakides v United Artists Communications, Inc* , 312 S C 271 440 S E 2d 364 (1994) is the controlling case in South Carolina to determine whether a tenant materially breached the terms of his lease agreement with a landlord so as to justify termination of the lease In *Kiriakides*, we held, "a lease may not be forfeited for a trivial or technical breach even when the parties have specifically agreed that 'any breach' gives rise to the right of termination " 312 S C at 275 440 S E 2d at 366 Instead, we stated "to justify forfeiture, the breach must be material, serious or substantial " *Id* In order to determine whether the breach was material we announced the following five factor test

- (a) the extent to which the injured party will be deprived of the benefit which he reasonably expected,
- (b) the extent to which the injured party can be adequately compensated [by damages] for the part of that benefit of which he will be deprived,
- (c) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (d) the likelihood that the party failing to perform or to offer to perform will cure his failure taking account of all the circumstances including any reasonable assurances,
- (e) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing

Id. at 275-76, 440 S E 2d at 366-67 (citing Restatement (Second) of Contracts § 241 (1981))

A Standard of Care

During Levick's deposition, he testified that Respondents breached their standard of care by failing to introduce any evidence during the arbitration in regards to the two *Kiriakides* factors [9] In his deposition Levick was asked, "[w]as it incompetent to fail to put in the monetary value of the lease to Harris Teeter?" Levick responded "yes " Additionally, Levick testified that Respondents' failure to introduce any evidence during the arbitration concerning the value of Harris Teeter's current lease—as Levick stated, "not just to Harris Teeter, but the value to the landlord when he bought it"—was a "key issue " At another point in his deposition, Levick was asked, "[g]iven the first *Kiriakides* factor is the extent to which a party will be deprived o[f] [the] benefit[] reasonably expected, was it incompetent to fail to specifically argue that factor was met because Harris Teeter always paid their rent?" Again, Levick responded "yes " Moreover, the following colloquy occurred during Levick's deposition

Q Let's go down to [subpart] D [of Harris Teeter's complaint against Respondents] failing to adequately prepare for the arbitration Tell me specifically what was not done that you think in your judgment should have done to prepare?

A I would have had a tremendous amount of evidence on the value of the lease to Harris Teeter I would have had a whole economic evaluation of why the purchase price that was paid at the time that Durlach bought it why that price was fair and reasonable given the lease and what a windfall the termination would produce I would have an appraiser's analysis show the value of the property if the Harris [Teeter] lease wasn't in place And I don't recall that any of that—well, I didn't see that any of that was presented In fact, I did see that there was a conscious decision to not show the value of the lease to Harris Teeter There was no evidence submitted on any of this I can find

The majority disregards Levick's testimony and concludes "Respondents presented *Kiriakides* front and center to the arbitrator " This finding is in direct conflict with the testimony of Howell

Morrison, the attorney representing Harris Teeter at arbitration. During his deposition Morrison acknowledged he did not introduce any evidence in regards to the *Kiriakides* factors at issue. In fact, Morrison testified that he made a conscious decision not to introduce such evidence. The relevant portions of Morrison's testimony are quoted below.

Q Did you ever look at the effect of that long term lease that was under market [value] on the price that Mr. [D]urlach paid for the building?

A I knew that it had a depressive market impact on the market value for most buyers. I assumed so. It was common sense and obvious to me.

Q Did you get any evidence on that? I don't see any evidence in the record about that.

A No. I didn't see that as any primary issue in the Arbitration.

Q The first criteria [sic] of the *Kiriakides* [case] is the extent to which the injured party will be deprived of the benefit which he reasonably expected. If you buy a building under value depressed because of the lease, you're expecting to get the lease that's on the building—the lease payments aren't you?

A If you buy below market value or above market value or at market value, you expect to get your lease. Right.

Q I don't see anything in the record to show how much money Mr. Durlach was going to [make in] windfall, not only in lease payments, but in the value to his property by getting this lease out. And that was crucial to this case. Why wouldn't you have [done] that?

A It was not crucial. In my judgment it would not have helped the presentation of the case to emphasize the under market lease that Harris Teeter held.

Q Is there any evidence in the record that would show what the value would—how the fair market value of the building would appreciate or what rent he might get?

A I did not specifically introduce evidence of that type. And in my view then, and still in my view, if we had spent time showing the Arbitrator emphasizing that we had a submarket lease, it was very much a two-edged sword that could have easily worked to our detriment.

Q Did you put in one dollar figure at what it would cost Harris Teeter?

A I don't think [so] I made a decision not to do that

Q And did you have in the record, one dollar figure at how this would impact Mr Durlach in getting more money than he would have expected when he bought the property?

A Well, what if he expected to find a way to renegotiate the lease, number one?

Q Did you show him [the arbitrator] how much money he would make by doing that?

A No I did not express total dollar figure either way

The majority relies exclusively on Respondents' pre-hearing memorandum and comments made by Respondents during opening and closing arguments to support its conclusion that Respondents fully presented *Kiriakides* to the arbitrator [10] As demonstrated by the testimony set forth above, Morrison unequivocally conceded that he did not introduce any evidence pertaining to the two *Kiriakides* factors in question to the arbitrator Moreover, the statements relied on by the majority—the pre-hearing memorandum and opening and closing remarks—are merely arguments of counsel and have long been recognized by this Court not to constitute evidence See, e g , *Ex parte Morris* 367 S C 56, 64, 624 S E 2d 649, 653 (2006)

B Proximate Cause

In order to demonstrate proximate cause, a plaintiff must show he most probably would have been successful in the underlying suit if the attorney had not committed the alleged malpractice *Summer v Carpenter* 328 S C 36, 42, 492 S E 2d 55, 58 (1997) This Court in *Baughman v American Telephone & Telegraph Co* succinctly stated the "most probably" rule as follows

It is not sufficient for the expert to testify merely that the ailment might or could have resulted from the alleged cause He must go further and testify that taking into consideration all the data it is his professional opinion that the result in question most probably came from the cause alleged

306 S C 101, 111, 410 S E 2d 537 543 (1991) But, "[i]n determining whether particular evidence meets this test it is not necessary that the expert actually use the words 'most probably'" *Id*

To survive summary judgment, the evidence presented must amount to more than mere speculation and conjecture *McKnight v S C Dep't of Corrs* , 385 S C 380, 390, 684 S E 2d 566, 571 (Ct App 2009) The expert must therefore state this opinion with reasonable certainty See *Ellis v Oliver*, 323 S C 121, 125, 473 S E 2d 793, 795 (1996) However, in evaluating a motion for summary judgment we must not weigh the credibility of the witnesses and the testimony *Anderson v The Augusta Chronicle*, 355 S C 461, 475, 585 S E 2d 506 513 (Ct App 2003) Thus, if the expert's testimony facially meets these criteria, it will be sufficient to defeat summary judgment

During his deposition, Levick testified as follows

My opinion is had they gone step by step through the *Kiriakides* case, had they shown the extreme windfall for the landlord and the extreme detriment to the tenant had they shown the communications between the parties in great depth orally, had they shown the intent of the original parties in its entirety, had they shown what the law is in other jurisdictions, had they shown custom and usage there is not a way in the world that they could have come up with this decision That is my opinion It could not have happened

Then, in another point in his deposition, the following colloquy occurred

Q Is it your overall opinion that if this case before the arbitrator had been handled in some different fashion, more specifically in the way that you suggest, the case would have been won by Harris Teeter before this arbitrator?

A Obviously it's speculation, but in reading the opinion the only thing that I can gather is that the arbitrator believed that Harris Teeter's conduct was so egregious that terminating a very valuable lease was a remedy I don't think that the arbitrator had an inkling in assuming he was the fair person that they thought they were hiring, had an inkling that this was a landlord who Harris Teeter's lawyer believed was trying to set them up for a lease termination, that basically was trying to get out of this lease and was using the arbitrator as a way to do it I don't think he had a clue, and I don't think he would have permitted himself to be used as a vehicle for terminating a perfectly valid lease that had been in force for 21 years when the guy bought it, that he bent backwards and forwards over it, that he requested no changes when he bought it, that this all of a sudden would translate into egregious bad faith that would deprive HT [sic] of the benefit of a lease that they had honored for 21 years *I just don't see him coming to that decision if the case was presented properly*

(emphasis added)

Levick's first statement clearly satisfies the most probable requirement As a result, I would hold that Harris Teeter has presented sufficient evidence to survive summary judgment with respect to its allegation that Respondents committed malpractice by failing to introduce any evidence in regards to the two *Kiriakides* factors

Admittedly, Levick's second statement is more problematic because he began by stating "[o]bviously it's speculation" In the circuit court's view, Levick's introductory statement rendered his entire opinion on the issue of proximate cause as nothing more than mere conjecture or speculation I disagree with this interpretation of the statement In reading Levick's second statement in context, I would find he did not state his conclusion—whether the result of the proceeding most probably would have been different—was speculation [11] See *Brockbank v Best Capital Corp*, 341 S C 372, 378-79, 534 S E 2d 688 692 (2000) ("In determining whether any triable issues of fact exist, the court must view the evidence and all reasonable inferences that may be drawn from the evidence in the light most favorable to the non-moving party") Rather, in answering the question, Levick began by speculating as to *why* the

arbitrator reached the conclusion he reached. In doing so, he initially stated that such telepathy is "[o]bviously speculation." In explaining why he believed the arbitrator terminated the lease, Levick surmised that the arbitrator inexplicably and erroneously viewed Harris Teeter as the bad actor in this case when in reality the landlord was the bad actor. This hypothesizing ended; however, when at the end of his answer Levick unequivocally stated, "I just don't see him coming to that decision if the case was presented properly."

In *Baughman*, this Court stated expert testimony is sufficient to establish proximate cause so long as the testimony is such "as to judicially impress" that the opinion represents the expert's professional judgment as to the most likely among possible outcomes. 306 S.C. at 111, 410 S.E.2d at 543 (internal quotation omitted). Mindful of *Baughman* and our standard of review, I would find Levick testified that the result of the proceeding most probably would have been different if Respondents had not breached their duty of care to Harris Teeter [12].

Based on our analysis, I would conclude that Levick's deposition established the standard of care for attorneys, Respondents breached that standard of care by failing to introduce any evidence in regards to the two *Kiriakides* factors, and finally that the result of the proceeding most probably would have been different had Respondents not breached their duty of care to Harris Teeter.

C. Judgmental Immunity Rule

I concur in the majority's decision to not adopt the judgmental immunity rule at this time. Under the judgmental immunity rule, strategic decisions made by an attorney in good faith and in conformity with the standard of care cannot be the basis of a legal malpractice claim. *Biomet Inc. v. Finnegan Henderson LLP*, 967 A.2d 662, 666 (D.C. 2009). If Respondents did not breach their standard of care as a matter of law, then an additional rule insulating them from liability is unnecessary. While I agree that we should not adopt this rule under the facts before us, it would be my view that we should never adopt it.

The core of this rule is nothing more than a tautology; it has always been clear that so long as an attorney exercises a reasonable degree of skill and care he will not suffer liability. Adopting a separate rule that restates that cardinal principle of our malpractice jurisprudence and denominates it an "immunity" certainly is *de trop*. See *Sun Valley Potatoes, Inc. v. Rosholt, Robertson & Tucker*, 133 Idaho 1, 5 (1999) ("Rather than being a rule which grants some type of 'immunity' to attorneys, it appears to be nothing more than a recognition that if an attorney's actions could under no circumstances be held to be negligent, then a court may rule as a matter of law that there is no liability."). Indeed, if this rule is in fact different from our general rules concerning attorney malpractice, then it would inherently sanction some conduct that would otherwise be negligent. To the extent the judgmental immunity rule restates the general rule that attorneys must comply with the standard of care, I would not adopt it as it is superfluous; to the extent that it offers any more protection to attorneys, I cannot join in the sanctioning of unprofessional and negligent conduct under the guise of "good faith" and "professional judgment."

II

Every malpractice case is, by its very nature, "Monday morning quarter-backing," and I wholeheartedly agree with the majority's statement that "[t]he practice of law is not an exact science." I also agree we grant attorneys a wide degree of discretion in how they prepare and

try their cases. Indeed, clients are compensating attorneys for that very exercise of discretion. However, the issue of whether Respondents committed legal malpractice is not before the Court, that question must wait for another day. Rather, today we are called upon to determine solely whether Harris Teeter has met its burden in opposing summary judgment. I would hold that Harris Teeter adduced at least a mere scintilla of evidence sufficient to survive summary judgment. I want to reiterate that in so doing, I pass no judgment on the merits of either side of this case or Levick's credibility. Rather, I would faithfully adhere to the principles established by this Court as to the role we play on review of summary judgment orders. Accordingly, I would reverse and remand for a trial on the merits of Harris Teeter's claim regarding the two *Kiriakides* factors

- - - - -

[1] The lease explicitly provided that the tenant had ten days to cure any monetary default and thirty days to cure any nonmonetary default.

[2] Harris Teeter also filed a malpractice claim against the first South Carolina law firm, that firm settled the claim.

[3] A VCC is a contract between the Department of Health and Environmental Control (DHEC) and a nonresponsible party pledging to clean up environmental contamination enacted under the Brownfields/Voluntary Cleanup Program, codified at South Carolina Code sections 44-56-710 through 760 (2002). Under a VCC, the nonresponsible party agrees to clean up the contamination in return for liability protection from DHEC.

[4] *Kiriakides v. United Artists Communications, Inc.*, 312 S.C. 271, 440 S.E.2d 364, 366 (1994).

[5] Harris Teeter has not appealed from the circuit court's ruling with respect to the other claims against Respondents. Therefore, the circuit court's ruling on those claims is the law of the case. See *Ex parte Morris*, 367 S.C. 56, 65, 624 S.E.2d 649, 653-54 (2006) (stating an unappealed ruling is the law of the case).

[6] The East Bay store has been a financial boon for Harris Teeter. Harris Teeter has annual sales in excess of two billion dollars, and the East Bay store has annual sales of twenty-four million dollars. Soon after EBV purchased the property and lease questions remained unresolved, Harris Teeter inquired about the potential to acquire the property. As Passmore testified at the arbitration, "Yes. I did make a telephone call to Mr. Durlach at the request of the president of Harris Teeter to ask Mr. Durlach if we could acquire the property."

[7] The parenthetical regarding the payment of the disputed expenses "in protest" lends Harris Teeter no support, for it was only after Harris Teeter retained Respondents that the expenses were paid to EBV. Respondents were retained in mid-January 2003. Payment of the disputed sums was made in mid-May 2003.

[8] Moreover, the judgmental immunity rule, if adopted, would serve merely as an adjunct at the summary judgment stage. The judgmental immunity rule would not shield an attorney from a malpractice claim when there is evidence of a failure to act with a reasonable degree of skill and care which proximately causes damage, regardless of the attorney's good faith. Good faith, standing alone, is no defense to the objective-based malpractice standard. See *Ardis v.*

[9] I agree with the majority's determination that Scarminach failed to establish the appropriate standard of care and satisfy the "most probably" requirement to prove proximate cause. Accordingly, his testimony and post-deposition affidavit are irrelevant to the determination of whether Harris Teeter has set forth sufficient evidence to survive summary judgment. I disagree, however, with the conclusion that Levick's post-deposition affidavit is a sham because this later affidavit did not contradict the position he took at his deposition. See *Cothran v. Brown*, 357 S C 210, 218, 592 S E 2d 629, 633 (2004) (stating under the sham affidavit rule, a court may disregard a subsequent affidavit as a sham—as not creating an issue of fact for purposes of summary judgment—if the subsequent affidavit contradicts a party's own prior sworn statement).

[10] I note even in the pre-hearing memorandum and in opening and closing statements, Respondents merely mentioned *Kiriakides* by name, listed the five factor test, and generally stated the factors weighed in Harris Teeter's favor. Respondents never produced any evidence demonstrating how these two *Kiriakides* factors applied to the facts of this case.

[11] Even if I were to agree with the circuit court and the majority that Levick failed to satisfy the most probably requirement in his second statement, Harris Teeter has still presented sufficient evidence to overcome Respondents' motion for summary judgment by virtue of Levick's first statement.

[12] The majority holds that Harris Teeter's claim fails for lack of proximate cause because the arbitrator, in his ruling, did cite and discuss all the *Kiriakides* factors. In response, Harris Teeter offered the testimony of Levick, as discussed above. These two competing viewpoints—that the arbitrator fully considered *Kiriakides* and that he most probably would have reached a different conclusion had the Respondents fully presented *Kiriakides* to him—are the *sine qua non* of denying summary judgment: a genuine issue of material fact.



The South Carolina Court of Appeals

TANYA A. GEE
CLERK

V. CLAIRE ALLEN
DEPUTY CLERK

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November 12, 2010

Clarke W. DuBose, Esquire
Haynsworth Sinkler Boyd, PA
P O Box 11889
Columbia, SC 29211

Re Graves, Kareem v. CAS Medical
2010176866

Dear Mr. DuBose:

Enclosed is a copy of an Order of the Court regarding your Motion to Strike Portions of Appellant's Designation of Matter to be included in the Record on Appeal and Initial Brief and for an Extension of Time to file its Initial Brief and Designation of Matter to be included in the Record on Appeal until such time as this Motion is Resolved and any Amended Brief and Designation is Filed in the above case.

Please be advised that if this order requires appellant to serve and file an amended initial brief, the brief must be served and filed no later than December 13, 2010.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Tanya A. Gee". Below the signature, the word "CLERK" is printed in a small, sans-serif font.

CLERK

TAG/laf

cc J. Edward Bell, III, Esquire
Thomas William Winslow, Esquire

The South Carolina Court of Appeals

Kareem J Graves and Tara Graves,
individually and as duly appointed
personal representatives of the Estate of
India Iyanna Graves, Appellants

v

CAS Medical Systems, Inc , Respondent

The Honorable James C Williams, Jr
Richland County
Trial Court Case No 2008-CP-38-00826

ORDER

Respondent moves to strike four items from Appellant's designation of matter and the references of these items from Appellant's initial brief

After careful consideration, we deny Respondent's motion with respect to item 42, AMI Caregiver Manual, and item 44, FDA Adverse Event Reports To the extent items 47 and 48, the Djikstra Article and Pressman Textbook, were read into evidence, only those portions are to be included in the record on appeal If this order requires Appellant to serve and file an amended initial brief, Appellant has thirty days to do so

AND IT IS SO ORDERED.

 AS

Columbia, South Carolina

FILED

11/12/10

cc J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
Clarke W DuBose, Esquire

THE STATE OF SOUTH CAROLINA
In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas

James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

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SC Court of Appeals

Appellants,

vs

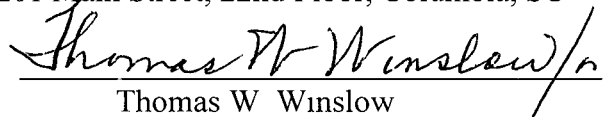
CAS Medical Systems, Inc

Respondent

PROOF OF SERVICE

I certify that on this 9th day of November, 2010, I have served a bound copy of the Record on Appeal on counsel for the respondent by having the same personally delivered by Robert C Ray, Process Server, to respondent's counsel, Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , 1201 Main Street, 22nd Floor, Columbia, SC

November 9, 2010



Thomas W Winslow
Bell Legal Group
232 King Street
Georgetown, SC
(843) 546-2408
Attorney for Appellant

November 9, 2010

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SC Court of Appeals

The Honorable Jeanette F Barber
Clerk, South Carolina Court of Appeals
John C Calhoun Building
1015 Sumter Street
Columbia, SC 29211

IN RE Kareem J Graves, et al, v CAS Medical Inc et al
Civil Action No 08-CP-38-826

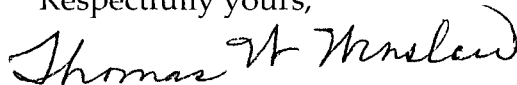
Dear Ms Barber

By copy of this letter, our process server has hand-delivered the Record on Appeal in this matter to respondent's attorney, Mr Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , 1201 Main Street, 22nd Floor, Columbia, SC, and we enclose herein our Proof of Service

The original and fourteen (14) copies of the Record will be filed with the Court upon the filing of our final briefs

Thanking you for your courtesy and with kind regards, I am

Respectfully yours,



Thomas W Winslow

TWW hdo

Enclosure Proof of Service of Record on Appeal

cc Mr Clarke W Dubose
Haynsworth Sinkler Boyd, P A
Attorneys at Law
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J EDWARD BELL III LLC

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

vs

CAS Medical Systems, Inc

Respondent

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OCT 14 2010

SC Court of Appeals

PROOF OF SERVICE

I certify that I have served the Appellants' Reply Brief, by depositing a copy of it in the United States Mail, postage prepaid, on October 11, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889

October 11, 2010
Georgetown, SC



J Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

October 11, 2010



BELL ELLIOTT PHELAN HARWELL

VIA FIRST CLASS US MAIL

The Honorable Jeanette F Barber
Clerk of Court for the S C Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia, SC 29211

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OCT 14 2010

SC Court of Appeals

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Re Kareem J Graves, et al , v CAS Medical Inc , et al
Civil Action No 08-CP-38-826

434 C North Guignard Drive
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Dear Ms Barber

Enclosed please find for filing the original and two copies of the Appellants' Reply Brief, and Proof of Service for Appellants' Reply Brief

I kindly request that you clock two copies of the Appellants' Reply and Proof of Service and return them to me in the enclosed self addressed stamped envelope

www.BellLegalGroup.com

With kindest regards I am

Very truly yours,

A handwritten signature in black ink, appearing to read 'T. Winslow'.

Thomas W Winslow

TWW/rkb
Enclosures

cc Clarke W DuBose, Esq

THE STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

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OCT 04 2010

SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY

Court of Common Pleas

James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

vs

CAS MEDICAL SYSTEMS, INC

Respondent

RESPONDENT'S DESIGNATION OF MATTER

Pursuant to Rule 209, SCACR, respondent designates the additional items for inclusion in the Record on Appeal

- 1 CAS Medical Systems, Inc 's Reply to Plaintiffs' Third Motion for Continuance, filed November 2, 2009
- 2 Thomas Winslow's letter to Judge James C Williams, dated April 3, 2009
- 3 Clarke DuBose's letter to Judge James C Williams opposing extension, dated April 7, 2009
- 4 Affidavit of William M Lively, dated October 12, 2007

- 5 Supplemental Affidavit of Mac Lively, dated March 13, 2009
- 6 Affidavit of Roger S Pressman, dated May 20, 2009
- 7 Supplemental Affidavit of Roger S Pressman, dated September 1, 2009
- 8 Supplemental Affidavit of Roger S Pressman, dated February 3, 2010
- 9 Affidavit of Cathryn Adams Schlesinger, dated September 2, 2009
- 10 Supplemental Affidavit of Walter Daugherty, dated February 2, 2010
- 11 Supplemental Affidavit of Roger S Pressman, dated February 3, 2010
- 12 Notarized Letter of Walter Daugherty to Thomas Winslow, dated March 1, 2010
- 13 Affidavit of Carl E Hunt, M D , dated March 12, 2010
- 14 Affidavit of William Lively entitled "Spaghetti Code, GOTO's and Structured Code," undated
- 15 Curriculum Vitae of Carl E Hunt, M D , dated December 29, 2009
- 16 Curriculum Vitae of Roger S Pressman
- 17 Deposition of Dr Guy Castles, M D (71)
- 18 Deposition of Walter Daugherty (17 22-18 3, 27 18-28 5, 36 9-37 4, 40 7-10, 48 16-24, 59 5-61 19, 63 16-24, 70 1-16, 78 14-21, 81 22-87 2, 94 2-23, 127 16-19, 129 11-16, 147 9-150 20, 164 21-166 12, 168 18-170 22)
- 19 Deposition of Walter Daugherty – *Smith v CAS Medical et al* (11 1-6, 77 14-78 14, 95 20-24, 96 7-12, 107 14-21, 134 13-135 7, 147 20-148 2, 149 6-14)
- 20 Deposition of Steven Elliott (27 12-28 4, 70 12-73 15, 94 8-23, 101 14-102 9, 105 11-106 4, 108 10-109 8)
- 21 Deposition of Dr Jane Gwinn (16 5-18, 17 2-14 23 22-26 5)
- 22 Deposition of Tara Graves (87 3-8, 143 25-144 11, 147 10-18)
- 23 Deposition of Kareem Graves (50 14-24, 73 3-12)
- 24 Deposition of Anita Kelly (27 19-29 3, 43 22-44 1, 45 18-46 18, 66 19-68 2, 110 1-19, 115 7-13, 119 13-22, 127 16-19)
- 25 Deposition of Scott Lambert (24 25-28 3, 29 21-33 2, 36 17-38 8, 65 14-66 6, 67 16-71 16, 73 18-74 18, 75 19-22, 77 23-79 23)

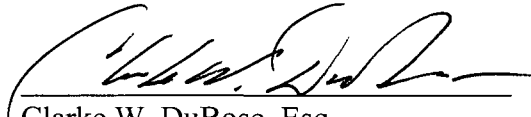
- 26 Deposition of William Lively (20 19–21 3, 22 21–25 20, 58 19-59 8, 60 8–62 18, 110 2-10, 111 16–112 1, 144 5-7, 144 8-10)
- 27 Deposition of William Lively - *Smith v CAS Medical et al* , (16–18, 50 14–52 4)
- 28 Deposition of Frank Painter (28 10-13, 28 20-22, 30 1-25, 55 6–57 1-10, 59 2-23, 63 20–64 9, 89 7-10, 100 3–101 4, 164 1-15–166 3-15, 175 22–177 10, 178 14–179 7, 208 4–211 8, 239 15-17)
- 29 Deposition of April Simmons (25 13-14, 30 10-11, 32 16-20, 33 4-12, 35 12-24, 37 4–38 18, 44 13-17, 65 14–66 6, 69 19-22)
- 30 Deposition of Dr Donna Wilkins (73 12–74 18, 74 19-22, 74 23–75 25, 84 13-14, 84 19–85 20, 88 20–89 15)
- 31 Deposition of Dr Donna Wilkins (Dep Ex 7 - letter from Thomas Winslow to Dr Wilkins attaching documents including Gwinn deposition)
- 32 Transcript of March 17, 2009, motion hearing
- 33 Model 9700 Summary Software Verification Test Plan
- 34 Nellcor’s Motion to Strike the Expert Testimony of Plaintiff’s Retained Software Defect Expert – *Smith v CAS Medical Systems Inc Nellcor et al*
- 35 SoftwareCPR AMI and AMI Plus Technical Assessment Report, pp 1-13
- 36 Hand drawn flow chart prepared by Walter Daugherty
- 37 Monitor Events Log 4/1/04-4/12/04
- 38 Maude Reports (Ex 8 to Plaintiffs’ Opposition to Motion for Summary Judgment, Oct 23, 2009)
- 39 EMS Run Sheet
- 40 “Ledalarm asm” Module With GOTO Statements Highlighted
- 41 Other Modules With GOTO Statements Highlighted
- 42 General Principles of Software Validation, Final Guidance for Industry and FDA Staff, Document issued on 01/11/02, p 11
- 43 Article - C by Dissection, The Essentials of C Programming
- 44 Article - C By Discovery
- 45 Article by Donald E Knuth, *Structured Programming with go to Statements*, 1974 (excerpt)

- 46 Abstract of *Structured Programming with go to Statements*, from "Portal" website, [http //portal acm org/citation cfm?id=1241535](http://portal.acm.org/citation.cfm?id=1241535)
- 47 Article - *Checking Your Baby s Breathing and Infant CPR*, [http //birth com au/ Newborn/Early-concerns-for-your-baby/Sudden-Infant-Death-Syndrome](http://birth.com.au/Newborn/Early-concerns-for-your-baby/Sudden-Infant-Death-Syndrome)

I certify that this designation contains no matter which is irrelevant to this appeal

Respectfully submitted,

HAYNSWORTH SINKLER BOYD, P A



Clarke W DuBose, Esq
Sarah Spruill, Esq
Post Office Box 11889
Columbia, South Carolina 29211-1889
(803) 779-3080
Attorneys for Respondent

October 4, 2010

THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

vs

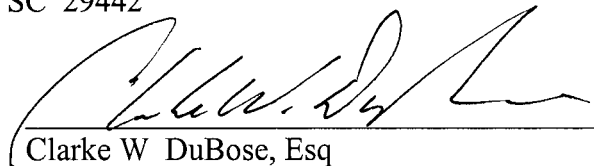
CAS MEDICAL SYSTEMS, INC

Respondent

CERTIFICATE OF SERVICE

I do hereby certify that I have this 4th day of October, 2010, caused the foregoing **Respondent's Designation of Matter** to be served via U S mail, postage prepaid, on Appellants' counsel of record at the address shown below

Thomas W Winslow, Esq
J Edward Bell, III, Esq
Law Office of J Edward Bell LLC
P O Box 2590
Georgetown, SC 29442



Clarke W DuBose, Esq
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SC Court of Appeals

THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

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Case No 08-CP-38-826

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KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
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ESTATE OF INDIA IYANNA GRAVES

Appellants,

VS

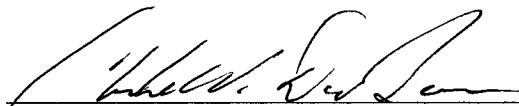
CAS MEDICAL SYSTEMS, INC

Respondent

CERTIFICATE OF SERVICE

I do hereby certify that I have this 4th day of October, 2010, caused the foregoing
Initial Brief of Respondent to be served via U S mail, postage prepaid, on Appellants'
counsel of record at the address shown below

Thomas W Winslow, Esq
J Edward Bell, III, Esq
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CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

October 4, 2010

VIA HAND DELIVERY

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426

Dear Ms Gee

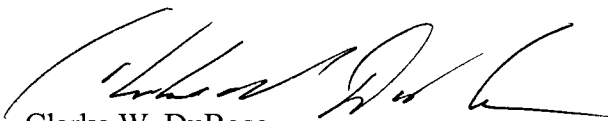
Enclosed in connection with the above-referenced appeal are the following

- 1 Initial Brief of Respondent, and
- 2 Respondent's Designation of Matter

Also enclosed are copies of the above-documents Please file-stamp the copies and return them to me via the bearer of this letter

If you have any questions, please do not hesitate to contact me

Yours truly,



Clarke W DuBose

CWD/kg

Enclosures

cc (w/enclosures)

Thomas W Winslow, Esq

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OCT 04 2010
SC Court of Appeals

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

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Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

AMENDED PROOF OF SERVICE

I certify that I have served the APPELLANTS REPLY TO CAS MEDICAL SYSTEMS, INC 'S MOTION TO STRIKE PORTIONS OF APPELLANTS DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL AND INITIAL BRIEF AND FOR AN EXTENSION OF TIME TO FILE ITS INITIAL BRIEF AND DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL UNTIL SUCH TIME AS THIS MOTION IS RESOLVED AND ANY AMENDED BRIEF AND DESIGNATION IS FILED, by depositing a copy of it in the United States Mail, postage prepaid, on September 20, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889

RECEIVED
SEP 28 2010
SC Court of Appeals



J Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

September 20, 2010
Georgetown, SC

September 24, 2010



VIA FIRST CLASS US MAIL

The Honorable Jeanette F Barber
Clerk of Court for the S C Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia, SC 29211

RECEIVED
SEP 28 2010
SC Court of Appeals

Re Kareem J Graves, et al , v CAS Medical Inc , et al
Civil Action No 08-CP-38-826

Dear Ms Barber

Per your instructions, enclosed please find for filing are two copies of the Appellants' AMENDED Proof of Service for Appellants' Reply to CAS Medical Systems, Inc's Motion to Strike Portions of Appellants Designation of Matter to be Included in the Record on Appeal and Initial Brief and Designation of Matter to be Included in the Record on Appeal Until Such Time as This Motion is Resolved and any Amended Brief and Designation in Filed I apologize for incorrect date being on the original Proof of Service

I kindly request that you clock one copy of the Appellants' Reply and Proof of Service and return them to me in the enclosed self addressed stamped envelope

With kindest regards, I am

Very truly yours,

Thomas W Winslow

TWW/rkb
Enclosures

cc Clarke W DuBose, Esq

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THE STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

RECEIVED

SEP 24 2010

SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
COURT OF COMMON PLEAS
JAMES C WILLIAMS, JR, CIRCUIT COURT JUDGE

CASE NO 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

APPELLANTS,

VS

CAS MEDICAL SYSTEMS, INC

RESPONDENT

**CAS MEDICAL SYSTEMS, INC 'S REPLY MEMORANDUM IN SUPPORT
OF MOTION TO STRIKE PORTIONS OF APPELLANTS' DESIGNATION OF
MATTER TO BE INCLUDED IN THE RECORD ON APPEAL AND INITIAL
BRIEF AND FOR AN EXTENSION OF TIME TO FILE ITS INITIAL BRIEF AND
DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL
UNTIL SUCH TIME AS THIS MOTION IS RESOLVED AND ANY AMENDED
BRIEF AND DESIGNATION IS FILED**

CAS Medical Systems, Inc ("CAS"), replies to the Graves' opposition to CAS's Motion To Strike Portions Of Appellants' Designation Of Matter To Be Included In The Record On Appeal And Initial Brief And For An Extension Of Time To File Its Initial Brief And Designation as follows

The Graves concede that none of the designated documents was in fact handed up to the trial court or filed with the clerk of court. Instead, they argue that the phrase “presented to the lower court or tribunal,” Rule 210, SCRAP, means something less, in most cases much less.

As noted in its motion, CAS does not object to designation of portions of items that were read into the record. Thus CAS has no objection to designation of the portion of number 48, the Pressman book, read into the record at the February 4, 2010, hearing. But CAS does object to the Graves’s designation of the entire Pressman book when they read only part of one page into the record below.

The Graves argue that designations 42, 44, 47, and 48 were presented to the trial court because they were incorporated by reference in their brief of March 1, 2010. This does not meet the requirement that the material be “presented to the lower court or tribunal” because it does not give the trial court the ability to read and consider the documents.

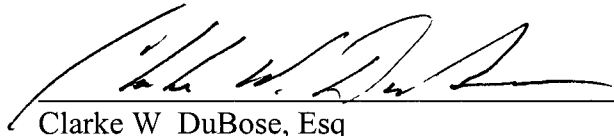
The Graves further argue that they “read and presented” numbers 44 and 47 to the court, but a review of the cited pages of the February 4, 2010, transcript shows that number 47 is not mentioned on the pages cited and that counsel *referred* to 44 but did not read any part of it. The fact that counsel in argument may have referenced certain documents likewise did not give the court an opportunity to review and consider them. The characterization of counsel is not a substitute for the documents themselves. *Cobb v Benjamin*, 325 S C 573, 581, 482 S E 2d 589, 581 (Ct App 1997). It was incumbent on the Graves to provide the court with documents supporting their position, *id*, and their failure to do so precludes inclusion of them in the record on appeal.

CONCLUSION

For the reasons stated in CAS's memorandum and in this reply, designations 42 (AMI Caregiver Manual), 44 (FDA Adverse Event Reports), 47 (Dijkstra Article), and 48 (Pressman Textbook) should be stricken from Appellants' designations and from Appellants' initial brief. If this motion is granted, CAS further asks that its deadline for filing its own initial brief and designation be extended until 30 days after the Graves file any amended designation and initial brief.

Respectfully submitted,

HAYNSWORTH SINKLER BOYD, P A

A handwritten signature in black ink, appearing to read 'Clarke W. DuBose', is written over a horizontal line.

Clarke W. DuBose, Esq

Sarah Spruill, Esq

Post Office Box 11889

Columbia, South Carolina 29211-1889

803 779 3080

Attorneys for Respondent

September 24, 2010

THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

vs

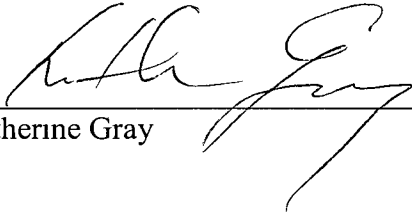
CAS MEDICAL SYSTEMS, INC

Respondent

CERTIFICATE OF SERVICE

I, the undersigned employee of Haynsworth Sinkler Boyd, P A , do hereby certify that I have this 24th day of September, 2010, caused the foregoing **CAS Medical Systems, Inc 's Reply Memorandum in Support of Motion To Strike Portions Of Appellants' Designation Of Matter To Be Included In The Record On Appeal And Initial Brief And For An Extension Of Time To File Its Initial Brief And Designation Of Matter To Be Included In The Record On Appeal Until Such Time As This Motion Is Resolved And Any Amended Brief And Designation Is Filed** to be served U S mail, postage prepaid, on Appellants' counsel of record as shown below

Thomas W Winslow, Esq
J Edward Bell, III, Esq
Law Office of J Edward Bell LLC
P O Box 2590
Georgetown, SC 29442



Katherine Gray

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, P.A.

ATTORNEYS AND COUNSELORS AT LAW

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CLARKE W DUBOSE
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September 24, 2010

VIA HAND DELIVERY

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

RECEIVED
SEP 24 2010
SC Court of Appeals

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426

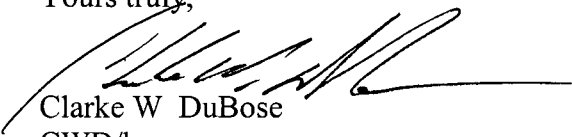
Dear Ms Gee

Enclosed are the original and six copies of CAS Medical Systems, Inc 's Reply Memorandum in Support of Motion To Strike Portions Of Appellants' Designation Of Matter To Be Included In The Record On Appeal And Initial Brief And For An Extension Of Time To File Its Initial Brief And Designation Of Matter To Be Included In The Record On Appeal Until Such Time As This Motion Is Resolved And Any Amended Brief And Designation Is Filed

I have also enclosed an extra copy of the Reply and asked that you file-stamp it and return it to me via the bearer of this letter

If you have any questions, please do not hesitate to contact me

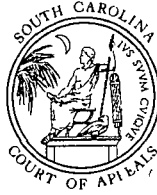
Yours truly,


Clarke W DuBose

CWD/kg

Enclosures

cc (w/enclosure)
Thomas W Winslow, Esq



The South Carolina Court of Appeals

TANYA A GEE
CLERK

V CLAIRE ALLEN
DEPUTY CLERK

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September 24, 2010

J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Re Graves, Kareem v CAS Medical
2010161426

Dear Counsel

We have received your Reply to CAS Medical Systems, Inc 's Motion on the above case. However, the Proof of Service shows service on July 26, 2010. Please provide an Amended Proof of Service with the correct date within ten (10) days of this letter.

Very truly yours,

V. Claire Allen, Deputy
CLERK

TAG/laf

cc Clarke W DuBose, Esquire

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08- CP-38-826

RECEIVED
SEP 21 2010
SC Court of Appeals

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

APPELLANTS REPLY TO CAS MEDICAL SYSTEMS, INC S MOTION TO STRIKE
PORTIONS OF APPELLANTS' DESIGNATION OF MATTER TO BE INCLUDED IN
THE RECORD ON APPEAL AND INITIAL BRIEF AND FOR AN EXTENSION OF
TIME TO FILE ITS INITIAL BRIEF AND DESIGNATION OF MATTER TO BE
INCLUDED IN THE RECORD ON APPEAL UNTIL SUCH TIME AS THIS MOTION
IS RESOLVED AND ANY AMENDED BRIEF AND DESIGNATION IS FILED

The Respondent CAS Medical Systems, Inc , has filed a Motion to strike portions
of the Appellants Designation of Matter on the contention that these matters are not
before the Trial Court The Appellants oppose this motion on grounds that the cited
material was presented before the Trial Court as was explained in the Respondents
correspondence to counsel and is reflected in the attached documents

RESPONSE

Pursuant to Rule 210(c) SCACR, a record on appeal shall not “contain matter which was not presented to the lower court or tribunal.” This rule is the basis for which the respondent wishes to strike for items designated by the Appellant, item 42 (AMI caregivers manual), 44 (FDA Adverse Event Reports), 47 (Dijkstra Article), and 48 (pressman textbook). Fortunately, each one of these items was presented to the Trial Court.

As is explained in the Respondent's attachments to the motion each of these items was presented to the Trial Court either through physical submission of the exhibit, reference to the exhibit, or through verbal reading of the exhibits content. As is explained to the Respondent's counsel 42, 44, 47, and 48 are all listed in the March 1, 2010 Brief supporting testimony of the Plaintiff's experts. This brief has been attached which shows that each one of these matters of designation are listed in the footnotes on page 25, which was presented to the Trial Court prior to the Order of April 26, 2010.

The attachments to this reply, detail were the designations in question were presented to the Court in the transcripts of the hearings. Specifically, number 48 was read and submitted to the Court on pages 58-59 of the hearing transcript of February 4, 2010 and numbers 44 and 47 were read and presented to the Court on pages 60-61 and page 112 of the February 4, 2010. Therefore, not only were the exhibits presented in the writings of the Appellant, they were also presented verbally by the Appellant to the Court.

CONCLUSION

Accordingly, these designations should be admitted and the Respondent made to submit his brief as previously ordered by the Court

LAW OFFICES OF J EDWARD BELL, III, LLC

By 

J Edward Bell
Thomas William Winslow
P O Box 2590
Georgetown, South Carolina 29442
TEL 843/546-2408
ATTORNEY FOR APPELLANT

SEPTEMBER ____, 2010

March 1, 2010



Via US MAIL

The Honorable James C. Williams, Jr.
Chief Administrative Judge
Circuit Court One
PO Box 1949
Orangeburg, SC 29116

1703 Keowee Lakeshore Drive
Seneca, SC 29672

Re *Kareem J. Graves et al v CAS Medical Inc et al*
Civil Action No 08-CP-38-826

Dear Judge Williams

Enclosed please find a copy of the Plaintiff's Brief Supporting Testimony
of Plaintiff's Experts

With kindest regards, I remain

Yours very truly,

Thomas W. Winslow
Attorney at Law

cc Clarke W. DuBose, Esquire (w/ enclosures)
Lisa Mizell, Clerk of Court (w/enclosure)

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STATE OF SOUTH CAROLINA	)	IN THE COURT OF COMMON PLEAS
	)	CIVIL ACTION NO 06-CP-38-421
COUNTY OF ORANGEBURG	)	
	)	
KAREEM J GRAVES and	)	
TARA GRAVES, individually and as duly	)	
appointed personal representatives of the	)	
ESTATE OF INDIA IYANNA GRAVES,	)	
	)	
Plaintiffs,	)	
	)	
vs	)	
	)	
CAS MEDICAL SYSTEMS, INC ,	)	
AMERICAN HEALTHCARE	)	
RESOURCES, INC d/b/a ASHBY	)	
MEDICAL and STEVE M ELLIOTT	)	
or any business entity d/b/a ASHBY	)	
MEDICAL, and PALMETTO HEALTH	)	
ALLIANCE,	)	
	)	
Defendants	)	

BRIEF SUPPORTING THE TESTIMONY OF THE PLAINTIFF'S EXPERTS

Plaintiffs, Kareem and Tara Graves, have filed this brief to demonstrate that the testimony of Plaintiffs' experts Daugherty (Exhibit 1, Dr Daugherty's C V) and Lively (Exhibit 2, Dr Lively's C V) have been consistent throughout litigation. As is documented in the deposition and affidavits of each expert, the opinion that the software used in the AMI monitor is defective has been repeated numerous times. This opinion on the defect has never changed. For defense counsel to assert that there is a contradiction is at best a faulty opinion and at worst unsubstantiated allegations.¹ A careful reading of the

¹ As is illustrated in the assertion that Plaintiff's expert Dr Wilkins is not an expert in SIDS. Yet again the medical science illustrates that one cannot be an expert in SIDS. SIDS is a diagnosis of exclusion that would be comparable to a diagnosis of 'unknown' in an adult death. One cannot be an expert in the unknown. Dr Wilkins is an expert neonatologist who deals with infants and understands the medical

deposition testimony and subsequent affidavits shows the Defendant s counsel is not only wrong, but clearly does not understand the science involved in these complex facts

NATURE OF CASE

India Graves was born prematurely along with two triplet sisters to Tara and Kareem Graves on December 30, 2003 Due to their medical condition, doctors at the hospital ordered that all three babies be monitored with apnea monitors to monitor their breathing and heart rate AMI Plus Apnea Monitors were delivered to the hospital for all three babies and attached to the children during their stay at the hospital Hospital personnel also instructed Tara and Kareem Graves as to the proper use of the monitors once the babies had been released from the hospital

On February 17, 2004, the hospital released the infants to their parents' care The hospital further provided the Graves with the AMI Plus monitor and instructed them to use the monitors to monitor each infant India and her sisters returned to the Graves Orangeburg, South Carolina home

From February 17, to April 11, 2004, Tara or Kareem Graves verified the monitor was properly attached to India and her sisters each night before they went to bed The monitor is designed to sound an audible alarm if the baby experiences breathing difficulties When this happens, the parents are instructed to turn the child over and stimulate her to make breathing easier and call for immediate medical attention

On April 11, 2004, Tara Graves awoke about 3 30 a m in her Orangeburg County home She went to check on India and her other infant daughters and discovered India in

science necessary to make an opinion in this case To this point the defendants have failed to produce any expert testimony disproving Dr Wilkins testimony only counsel s conjecture

her crib not breathing Although three lights on the monitor signifying breathing problems were lit at the time the monitor had failed to sound any audible alarm

Kareem Graves called the Orangeburg County Emergency Medical Services number The EMS team arrived at the home, but was unable to revive the child The County Coroner subsequently determined the cause of death to be SIDS

A post-accident examination of the CAS monitor disclosed that defects in the monitor's software caused the alarm to malfunction on the night of India's death In March of 2006, the Plaintiffs filed the instant product liability action against CAS (and a number of other Defendants who have now been dismissed from this action) The Complaint alleged, *inter alia*, that CAS was the manufacturer of the monitor, that the monitor failed to alert the parents to a decrease in the child's breathing due to unreasonably dangerous defects in the monitor, and that the defective monitor proximately caused the child's death The Plaintiffs asserted causes of action against CAS for strict liability, breach of warranty, negligence and wrongful death

STATUS OF CASE

At the hearing on February 4, 2010, Judge James Williams ordered Plaintiffs to respond by brief to CAS's claim that Plaintiffs' experts have changed their opinion 180 degrees as to the defect that caused the alleged failure of the monitor As is shown in this brief the Plaintiff's experts have maintained the same opinion of structural defect caused by defective lines of code throughout their deposition and affidavits

A THERE HAS BEEN NO CHANGE IN DAUGHERITY'S TESTIMONY

First CAS complained to the Court that the Plaintiffs' experts needed to be more specific in their opinions (See CAS Motion to Compel) Then the Defendant complained that there was not enough information for the basis of the opinions (See CAS Motion for Summary Judgment) When the Plaintiff supplemented their depositions with affidavits CAS then complained that the experts were providing new information and should be stricken (See CAS Motion to Exclude Experts and Affidavits) The argument is disingenuous at best

CAS has either accidentally, or worse, used different discussions from the depositions and affidavits to give the appearance, but not substance, of a contradiction Most of the appearance is related to CAS' misunderstanding of the terminology used by the experts Although such a misunderstanding is understandable in such complex issues, it is not excusable to use such a misunderstanding to attack an expert's credibility Further, to have this explained previously (Plaintiffs Memos and Reply's to Defendants Motions) and still insist that the opinions have changed 180 degrees at the February 4, 2010 hearing is incorrigible

DAUGHERITY DEPOSITION

In the motion hearing on February 4, 2010 CAS argues that Dr Daugherity stated in his deposition that a "bug" caused the software to malfunction This is untrue At the very onset of his deposition, Dr Daugherity described the fault of the software as one of structure

33

13 Q, Can you show me where the bugs in this case, sir

14-17 (attorney discussion)

18 **A If you're asking where are bugs or defects in**
19 **this code, the defect is the overall design**

20 Q All right, sir

21 And explain to me, if you will

22 A Okay, In a piece of software of this

23 Magnitude, which has over 800 modules, some of them are

24 larger than ledalarm asm alarm_tick, some are smaller,

25 but there are over 800 modules IN a piece of software

34

1 of this complexity, it's important to use good design

2 principles in order to produce a program which meets the

3 specifics, is testable, and is maintainable

4 **This approach which is evidenced by the code**

5 **under discussion is one where, instead of using best**

6 **industry practice of the time of structured or**

7 **object oriented programming, results in the lines of**

8 **flow of control of execution being a rather tangled mess,**

9 **like a bowl of spaghetti, which is why it has the**

10 **name "spaghetti code "**

Again, on page thirty-five, the Defendant CAS asks about the "bugs"

35

12 Q Referring again to Exhibit 6, have you found

13 any—and I'm going to use the word 'bugs,' but if that

14 term is not clear, let me know—have you found any

15 bugs in the software represented—or in the code

16 represented by that exhibit?

17 **A Other than the poor design, no**

On page forty one, Dr Daugherty is asked again

41

9 Q Have you located any specific computer bug in

10 the software that controls the alarms and the microphone

11 and the LEDs on the CAS AMI Plus monitor?

12 **A Not other than the poor overall design**

However when asked how much time he has spent evaluating the code in lines 17 through 25, Dr Daugherty explains

19 because it is **so poorly designed**, I felt like I should

20 get authorization to proceed further

At the time of Dr Daugherty's deposition, he explains that he would need more time to evaluate the software, however he was still willing to testify that the overall design of the software was defective. It is in the affidavit that Dr Daugherty tries to clarify the defects, due to him having additional time to evaluate the software.

The Defendant's counsel proceeds on and repeatedly Dr Daugherty states that the defect is the overall design of the software in the AMI monitor.

50

9 A It's more likely that it's a software error
10 than it's some other cause

Further

83

7 When it's life critical software then it's
8 extremely important to use good design method, good
9 implementation, good testing, and good maintenance, in
10 order to have a reliable product
11 And there's a lot of evidence that that
12 wasn't done in this case

Still more

127

16 Q Was it a violation of any standards to use
17 assembly code when coding this monitor?
18 A No Assembly is just an implementation method,
19 that's not a design method
20 I mean, it's like saying, 'Can I write a
21 letter in English or French?'
22 Well, the answer is yes, but --so you can
23 write good programs in assembly and you can write bad
24 programs in assembly And this, unfortunately, is a bad
25 program in assembly

The term "bug" was continually used by CAS attorney, but no consensus was reached, nor even attempted, on the definition until page 136 of the deposition. At that time, Dr Daugherty described "bug" as follows:

136

24 Have you talked to plaintiff's counsel or
25 Dr Lively about your inability to locate a specific

- 1 defect within the code?
 2 A Well, **the defect is in the overall design**
 3 Q My question's a little different than that
 4 You have not located a defect within the
 5 code or a bug or whatever you want to call it
 6 What term do you like to use?
 7 A Well, "bug" is fine
 8 Q "Bug" is good?
 9 A Yes
 10 Q So we can agree on "bug"?
 11 A Okay
 12 Q Okay I'll go with "bug "
 13 And how do you define "bug"?
 14 A It's -- in this case, it's an error in the
 15 code
 16 Q That causes a malfunction of the machine?
 17 A Right

That is the manner in which Dr. Daugherty was using the term, an error that causes a malfunction. This makes sense when placed with his previous testimony.

- 6 Because you have not found any specific
 7 computer bug in this code, would you agree with me that
 8 you cannot say whether or not that bug actually exists?
 9 A It's more likely that it's a software error
 10 than it's some other cause
 11 Q Would you agree with me, however, that because
 12 you have not found a bug, that you cannot say more
 13 likely than not that a bug exists in this code?
 14 A **No, I think it is more likely to be a software**
 15 **failure than a hardware failure or an error in**
 16 **reporting**

Obviously, CAS' attorney has some other definition of 'bug' that he wished to use, but failed to give that definition to the witness. Further, CAS has still not supplied their definition of 'bug'. Such misunderstandings by CAS' attorney were not unusual.

Not only does Dr Daugherty state his opinion of poor design repeatedly, the Defense counsel Clarke Dubose recognizes the opinion and appears to understand what the defect is

86

11 Q Okay Why don't we enumerate them one by one
12 to make sure we have a clear and complete list Can we
13 do that?

14 (still Dubose) **One, the code is poorly written and**
15 **spaghetti code?** I don't mean to put words in your
16 mouth I'll let you go

17 A Well that's all right

18 Okay The code is poorly designed The
19 implementation is insuff—or is inadequate for proper
20 testability The code was not properly maintained and,
21 consequently, I consider the software to be defective in
22 design and inappropriate to be relied on in a
23 life-critical system

24 Q Is that it?

25 A Yes

Yet again Defendants counsel demonstrates his understanding of the Dr Daugherty's testimony when asking him about the facts he relied upon for his opinion

87

8 Q Are there any other facts on which you rely for
9 **your opinion that the code for the AMI Plus Monitor is**
10 **poorly designed?**

The defense counsel clearly understands that the opinion is that the code is defective in development, design, and maintenance He repeats it himself while exploring how he came to the opinion, yet now he claims the testimony is contradictory

In the following exchange, CAS' attorney asks questions about an asterisk in the monitor printout (log) (Exhibit 3) that CAS attorney misconstrues as an indication the alarm sounded CAS' attorney begins to ask whether the asterisk is caused by a "bug" without clarifying the term or its meaning

80

17 Okay Let me represent to you that the
18 asterisk we were looking at in the log a while ago are

19 an indication that the monitor makes on the log that the
20 alarm went off Do you have any reason to believe that
21 is not the case?
22 A This is the first time I've ever been told that
23 so I don't know
24 Q You didn't understand that from your review of
25 the software?

81

1 A No My understanding is that the program,
2 which produces this report, is not the program in the
3 software In other words, it's not a matter of the
4 monitor producing the printout The monitor records
5 basically a string of numbers, and then that string of
6 numbers is downloaded to another computer and another
7 program which then interprets those numbers and produces
8 the report
9 Q I cut a corner Let me go back and straighten
10 that out
11 Do you have any reason to believe that the
12 numerical log created within the monitor that ultimately
13 can be printed out into the form of Exhibit 7 -- is that
14 right?
15 A Yes
16 Q -- includes an indicator in the form of an
17 asterisk opposite a patient alarm that the alarm was, in
18 fact -- that the alarm, in fact, went off?
19 A I don't know
20 Q You didn't know that the monitor checks to
21 determine whether the alarm went off when a patient
22 event occurs and marks that down on this download?
23 A No, I didn't know that
24 Q Assuming I'm correct, that would be another
25 thing that had to have happened incorrectly for the

82

1 Graves' scenario to be correct?
2 A If that's what it indicates, yes
3 Q Could one bug, in your opinion, have caused all
4 of these things to go wrong?
5 A Yes
6 Q But have you found that bug?
7 A No It's what I pointed out a while ago, that
8 from the time the ledalarm_tick module is entered till
9 some path reaches alarm on, if it's interrupted before
10 it gets to that point, then all of these other things

11 can fault

This error by CAS' attorney was due to a misunderstanding of the how the system works
That misunderstanding was cleared up in a December 2008 deposition of the developer of
the product who was deposed by CAS, Scott Lambert, who the defense counsel
referenced in his presentation to the court

139

- 16 Correct You were asked some questions about
17 the downloads The asterisk that appears in
18 the -- I think it's the All Study Logs, if
19 you look at the Graves download --
20 A Yes
21 Q -- that doesn't actually signify the
22 microphone heard the alarm, does it?
23 A It's associated with that But, no, that's
24 not a direct measure of the microphone
25 Q So, for example, if we unplugged the alarms

140

- 1 and simulated an event, we would still get
2 the asterisk, wouldn't we?
3 A In the All Study Log, yes
4 Q Okay
5 A I believe you would
6 **Q What the asterisk actually means is that**
7 **that's an event within the parameters where**
8 **an alarm would go off?**
9 A Correct

(Lambert Depo)

Not only did CAS' attorney not have a definition for "bug", he had a complete
misunderstanding about how the product worked While this is understandable in such a
complex case, the fault for those errors is to be placed with CAS, not Dr Daugherty If
CAS was unsure of a term or how it is used in software then it is their responsibility to

ask the appropriate questions of the witness CAS should not supply its own definition after the fact and attempt to create a contradiction where none previously existed

Finally further into the deposition, a consensus was reached on the term "bug" for a series of questions After that consensus Dr Daugherty clearly described the 'bug' as error within the code

Dr Daugherty has continually maintained that the structure of the code is defective and unreasonable dangerous and has been consistent throughout his deposition and affidavit Although CAS complains they were never told of this in his deposition, how can the following be explained

167

- 13 Q The lawyer used the term "bug," and that the
14 bug caused the alarm not to sound What is the defect
15 in this programming?
16 A Well, we discussed that in several of my
17 answers, **that the defect is an overall defect of poor**
18 **quality design, poor testability, and poor maintenance**
19 **The term "bug" is usually used to refer to a specific**
20 line or lines of code which are incorrect and have to be
21 replaced by the correct lines of codes
22 Q Did that defect, as you describe it, cause the
23 monitor alarm not to sound?
24 MR DuBose Object to the form
25 A Most likely As I said --

168

- 1 Q (BY MR WINSLOW) More likely than not?
2 A More likely than the other possible causes that
3 I considered
4 Q And is this programming that was used, this
5 spaghetti code, was that what a reasonable and prudent
6 programmer would have used in this device of this kind?
7 **No, not at this time**

Defense counsel follows up and again focus on the bug question, but Dr Daugherty concludes the deposition with an important statement

18 A But good design leads to fewer bugs Poor
19 design leads to more bugs

Dr Daugherity clearly testified that the defect in the software was the design, i.e. spaghetti code, and further testified that this was the ‘most likely’ cause of the monitor not to sound, where is the contradiction? The only contradiction is the misuse of the undefined term ‘bug’ by CAS’ attorney. In reality, CAS complains that additional information has been added to Dr Daugherity’s opinions which give them context. However, it was CAS’ responsibility to ask the questions that were necessary to give context so they could understand the opinions. Instead, CAS has supplied its own context and confused information with contradiction.

CAS also attempts to parse words with the concept of whether the ‘goto’ statements, otherwise known as unconditional branching statements, actually caused the alarm not to sound. Again, this is a matter of terminology. The “goto” statements do not actually control anything as noted in Dr Daugherity’s deposition. However, the use of ‘goto’ statements leads to unstructured code, which leads to instability. An analogy might be made to a contractor that builds a house with plastic nails instead of metal. If the house were to fall and kill the occupants, the nails did not actually kill anyone, but the structure they supported did. With that explanation considered, examine the exchange CAS complains about.

17 Do you find any unconditional branch
18 instructions in the AMI Plus code that caused the alarm
19 not to sound, in your opinion?
20 A Yes, there are

21 Q Are there any go-to statements in the AMI Plus
22 code that caused what we would consider to be a bug so
23 that the monitor malfunctioned?

24 A The unconditional branch instruction itself
25 would not cause a bug because all it does is transfer

150

1 control to another location However, the excessive use
2 of unconditional branch or go-to instructions leads to
3 the kind of unstructured code, including spaghetti code,
4 that is difficult to test and maintain

Also note that CAS completely omits during the February 4, 2010 hearing
(transcript pages 31-32)² the straightforward question and answer found in lines 17—20
(in bold) CAS is simply trying to engineer a contradiction that does not exist

CAS next argues that Dr Daugherity somehow blessed the use of unconditional
branching statements in the AMI device solely because Dr Daugherity acknowledged
their existence Again, CAS conveniently omits the remainder of Dr Daugherity's
testimony about the "goto" statements

148

8 Do you have an opinion whether go-to statements
9 used in this particular code are proper or improper?

10 A I haven't looked at all of the code, but
11 there's a basic -- I'm not sure what you'd want to call
12 it -- principle that code is more easily tested and
13 maintained if it does not contain a lot of go-to or
14 unconditional branch instructions

15 So there was a famous article by Edsger
16 Dijkstra E-d-s-g-e-r, D-i-j-k-s-t-r-a, in the late
17 '60s, that introduced the idea of structured programming
18 in an article that was entitled, "Go-to Considered
19 Harmful " That wasn't the title he put on it, that's

² Defendant s counsel states during the hearing I asked him [referring to Daugherity] about it or to rule it in either one it was up to him Is it your professional opinion that there are excessive unconditional branch instructions in this code? I haven t looked at it Further Defendant s counsel went on to report to the Court 'Is that another way of saying that they [referring to unconditional branch instructions] didn t cause the problem if there is one nowhere does he tell me that it caused a malfunction Defendant s counsel either did not read page 149 or did not feel it was important to note for the Court that lines 17-20 address this topic directly

20 the title the journal put on it And for about the next
21 six months, there was a raging battle between letters to
22 the editor about, "Oh, no You have to use a go-to to
23 do this "
24 And then Dijkstra would respond the next
25 month, "No, you don't You can do it like this without

149

1 a go-to " And at the end of the day, he won in the
2 sense that structured programming became the predominant
3 programming paradigm beginning then, late '60s, into the
4 '70s
5 And one of the principles or design goals
6 of structured code is that each module would have one
7 entry point and one exit point, in which case you would
8 not need any go-to statements There are a few
9 situations where a go-to statement makes the code a lot
10 simpler
11 And so it's not a hard and fast rule to say
12 that if a program with 100,000 lines of code has one
13 unconditional branch statement in it, it's not
14 structured But that is one puristic in designing good
15 code is to minimize the use of go-tos, which NEC calls
16 unconditional branch instructions

Most importantly, CAS omits Dr Daugherty's opinion from his deposition that these unconditional branch instructions caused the failure How can CAS possibly argue that Dr Daugherty never criticized the use of the goto statements and never testified that the goto statements were not a cause of the alarm failure? Omission by CAS of the consistent testimony does not equal a contradiction Following the deposition, Dr Daugherty found 434 goto statements (exhibit 4) which were referenced in the April 2009 letter to Judge Williams Even though the use of goto statements alone are not defective the way that they were designed into the software program made them defective, because these statements lead to the "spaghetti code These goto statements are the 'bugs' that created the spaghetti code By weaving the goto statements into the

design of the code, the code is such a jumbled mess that the only way to remedy the problem is to re-write the code

DAUGHERITY AFFIDAVIT

In the signed affidavit of Dr Daugherty he states,

‘ Based on this analysis, I was able to exclude all reasonable possibilities the cause of the complaint except software error I was also able to include software as the only possible cause for this complaint based on the evidence and information presented ’

Unlike in his deposition, Dr Daugherty then is allowed to proceed with explaining the process and development of his investigation

There are two possible ways in which the software could fail in such a situation, either coding error or structural error Additionally, as explained below, the manner in which the software has failed in the past and in this instance would tend to indicate that the problem is not a simple coding error, but a more complex systematic error

As is illustrated above Dr Daugherty is stating that there is a software error only in the coding At the time of the affidavit, he has had time to evaluate the software and is prepared to clarify his position

While evaluating the code Dr Daugherty identified 434 goto statements that lead to the development of the spaghetti code (exhibit 4) This is clarifying testimony he provided on pages 149-150 of his deposition These defective “goto statements have lead to the structural defect in the AMI monitor software A structural defect is defined by Dr Daugherty as “when the program executes or omits a function as it was designed ’ As Dr Daugherty goes on to explain one way the structural defect can occur

is through unconditional branching, also known as goto statements This is exactly what Dr Daugherty testified to in his deposition

149

17 Do you find any unconditional branch
18 instructions in the AMI Plus code that caused the alarm
19 not to sound, in your opinion?
20 A Yes, there are

These 434 lines of code were improperly introduced into the coding and as explained by Dr Daugherty in his affidavit on page six

‘ Within a reasonable engineering certainty, I must conclude that the cause of the complaint for the alarm not functioning during the event in question is that the alarm actually did not function and that the root cause of the failure was a software error due to the defective lines of software identified ’

Repeatedly throughout the deposition Dr Daugherty states that there is a structural issue with the software, he then points out the unconditional branching that was a defect, and those lines of code in order to clarify his position, or as defense would like to call them the ‘bugs’ have been documented and clarified in his affidavit

Concerning the logging function³, it is clear from the deposition on pages 80-82 that Dr Daugherty was unclear on this function As a matter of fact, it is also clear that until after the Scott Lambert deposition, all parties were unclear as to how the logging function worked in regard to the asterisk On page six of Dr Daugherty’s affidavit he sheds more light on the logging situation

“The unorganized structure of the code, causes lines of code to not follow their intended path and not reach their required destination Therefore, it is probable that the logs are unreliable ’

³ The logging function is the system that downloads the information the software instructs are the events the infant is experiencing if an alarm should sound As Scott Lambert testified the monitor is designed to log when an alarm should sound not that an alarm actually sounded

Dr Daugherty is clarifying his position now that he has had more time to investigate the monitor and its function

Dr Daugherty has continued to work and as he continues to work his opinion becomes more refined, just like any good experts opinion should, it evolves with more information and the opinion becomes clearer These depositions were completed on May 22, 2008 and the affidavit was completed on April 17, 2009, nearly a year for additional testing and discovery

DAUGHERITY IN SMITH CASE

CAS directs the Court's attention to the *Smith* case in Texas where Dr Daugherty gave expert testimony concerning the AMI device Once again, CAS fails to provide the Court with the entirety of the testimony concerning 'bugs' The term "bug" used in that deposition was defined by the attorney asking the question Again, Dr Daugherty was very clear that the defect in the AMI was caused by the structure of the software code, i.e spaghetti code

140

15 Okay I guess what I m trying to say is this
16 The fact that any one individual thought that an apnea
17 alarm didn't alarm as represented in any of these 50
18 subfiles, that doesn't cause you to believe that it had
19 to be in the software category in this case, in the
20 Kortney Smith case, true?
21 **A It does not change my opinion that the**
22 **inadequate software design was the – the source of –**
23 **or found of [sic] the defect**

12

3 My question is this Can you point to any
4 portion of the code that you contend is defective?

5 **A The entire design is defective In the**
6 **particular module with the LED alarms, the design is**
7 **defective** And I have analyzed that module, if you
8 would like to see that

Although CAS argues that Dr Daugherity never mentioned goto or “unconditional branching” in the *Smith* deposition, CAS fails to inform the Court that ‘spaghetti code” was discussed approximately three dozen times (Plaintiffs have previously submitted the entire transcript) Again, CAS either fails to understand that spaghetti code is comprised of goto statements or is intentionally trying to mislead the Court Either way, there is no basis to exclude Dr Daugherity s testimony

As has been shown, there are no contradictions in Dr Daugherity’s testimony Instead, Dr Daugherity’s testimony is completely consistent throughout The only complaint is that CAS failed to ask the appropriate follow-up questions due to a lack of understanding about the issues involved This is not the fault of the Plaintiffs or Dr Daugherity and not the basis for exclusion

B THERE HAS BEEN NO CHANGE IN DR LIVELY’S TESTIMONY

DR LIVELY S DEPOSITION

CAS attempts to beat the same misleading drum about the testimony of Dr William Lively CAS’ attempt to turn semantics into substance fall flat again Dr Lively was clearly demonstrating that the code itself was passive, but the signal it creates is active Either CAS does not understand this point, or is attempting to mislead the Court

concerning this testimony Repeatedly, Dr Lively describes that the defect is the structure of the software

59

24 A When we view code like this, which we call
25 spaghetti code, meaning the flow of control is not clean

60

1 and the fact that these alarm problems have been
2 occurring with the monitors for ten years or more, one
3 would have to conclude that it is the software The
4 fact that it is spaghetti code means the maintenance of
5 that code is very difficult In other words, following
6 the various paths through the code is very difficult and
7 therefore it is very difficult to fix the alarms

8 So—well, I ve just started off and ran
9 like the dickens on that question So I think, yes,
10 the software is the problem

Again

73

13 Q Do you believe that the requirements failure you have identified was the cause of India grave's monitor allegedly not alarming on the night in question?

17 A Yes

18 Q And why do you believe that?

19 A When you build a software system, what you must
20 do is anticipate every contingency That s why I go
21 through multiple iterations to get the right
22 requirements because I've got to know what's going to
23 happen in every case

24 Q And you don't believe that happened here?

25 a Well, when we look a the alarm problems

72

1 that's – that conclusion can be drawn form the lack of
2 increments

More

115

15 Q ' To a reasonable degree of engineering certainty, the defendant CAS Medical was negligent in the design of the monitor? '

18 A That is correct That is correct

19 Q It is correct that CAS designed the monitor?

20-21 objection

22 A There was an error in the monitor They didn't
23 correct it That's part of the design
24 Q The error is part of the
25 design, is that what you are saying?

116

1 A That wasn't what I was answering, was it? I
2 said CAS is responsible
3 Q Well, I'm asking about what you said in the
4 affidavit I know what you are saying today But in
5 this affidavit, you say that CAS was negligent in the
6 design of the monitor Now that means to me that CAS
7 designed the monitor negligently Is that what you're
8 trying to say or am I misinterpreting?
9 A No, no **The inherited a problem that they**
10 needed to redesign and correct the problem with and they
11 didn't do it

Repeatedly the problem is explained to by software coding issues by the Defendant CAS

132

2 A It is the execution of the code that causes the
3 problem
4 Q by 'execution' you mean the
5 signal running through the code?
6 A Yeah Yeah The signal—the computer
7 executing a particular sequence of code
8 Q In other words it was an error within the code
9 itself that causes the problem?
10 A I'm not sure I know what you mean by that
11 Q I'm not sure I do either, so let me try it
12 again
13 Q My question a minute ago was whether the
14 fact that this is, as you consider it, spaghetti code in
15 and of itself caused the alarm – assuming it did not go
16 off—caused it not go off when India graves fell
17 ill?
18 A Correct
19 Q It was an error within the code?
20 A Correct

It is error within the code, which was later determined to be the excessive and
improperly used goto statements discussed in Dr Daugherty's deposition above and in
Dr Lively's deposition below

143

**24 Q Do you have an opinion on whether goto
25 statements are appropriately included in the code in the**

144

1 AMI Plus monitor?

2 A They're not

3 Q They are not what?

4 A They are not used appropriately

5 Q Are they inappropriate goto statements in the

6 AMI Plus Software?

7 A That's what creates the spaghetti code

8 Q Explain that to me, if you would

9 A The goto statements just allow -- cause me to

10 branch through out the program

(Skip to line 20)

20 Q Are goto statements properly used with the

21 NEC processor used in the AMI Plus monitor involved

22 here?

23 A That's a function of the software that's

24 written and we've said that they are not appropriately

25 used

Again Dr Lively's testimony was very clear that the structure of the software
was flawed and that caused the signal to travel an erroneous pathway

144

7 (BY MR DuBose) What caused the software to

8 malfunction only on that occasion?

9 A The paths through the code are very -- the

10 number of paths is very large As I said earlier, we

11 talked about testing a piece of software with a large

12 number of patterns, with a large number of paths, you

13 can't do them all Okay?

14 So that night, the path -- signal path went

15 through a previously untraveled path or a path that had

16 not caused any critical problems to cause the alarms not

17 to function

18 Q What caused that path to be taken that night

19 but not apparently before or after?

20 A A number of path conditions

To further prove the point that the structure of the software is flawed, Dr Lively discusses the FDA requirements

66

10 Q In what way did the device software not meet

11 the FDA guidance?

12 A It was not structured, it was spaghetti code,

13 it was not properly documented The development of the

14 software was very weak in terms of the process of

15 software development We discussed requirement,

16 specification, design and so forth earlier

CAS cannot point to a contradiction within the testimony of Dr Lively The only alleged contradiction is through CAS misunderstanding or misreading of the testimony As such there are no grounds to strike Dr Lively's testimony

DR LIVELY'S AFFIDAVIT

Dr Lively states in his original affidavit of March 11, 2009 that it is his ' opinion that the unorganized structure of the code causes lines of code to not follow their intended path and reach their required destination ' This is due to the 434 defective lines of code, called 'goto' statements or unconditional branch instructions The bug in this software is the defective use of "goto" statements Those defective "goto" statements led to 'the structure of the code in the AMI (being) a design flaw and a breach in the engineering standard of care and is the most likely source of the dozens of alarm failures that can not be explained by either hardware problems or computer errors However the structure is so poor for the software that the errors cannot be fixed or located with any certainty ''

On March 13, 2009, Dr Lively supplemented that affidavit with an additional one to expand upon his ideas even more clearly. He states the same general principle as in his previous affidavit and deposition, that the faulty software design is the cause of the multitude of audible alarm problems that have been experienced with this device. Further, the faulty design of the software system does not allow the errors causing the failures to be found and corrected. As is clarified in paragraph 12 of the supplemental affidavit.

“Spaghetti Code is a direct cause for the alarm to malfunction ”

This clear and direct point correlates with the previous testimony that the structure of the software code is defective. The opinion that there is a structural defect in the software, that the unconditional branching is a defect, that there is a ‘bug’ are all consistent in his depositions, affidavits, and even consistent with Dr Daugherty’s depositions.

EXPERT QUALIFICATIONS

It is important to note that the qualifications of these experts is not under attack, as a matter of fact even defense counsel recognizes that they should be admitted to testify. In Lively’s deposition, Defense counsel stated, ‘I know you’ll be ultimately admitted, but you aren’t now’ (page 108, line 14-15).

There CV’s speak for themselves (exhibit 2 and 3), however it is important to recognize that Dr Lively is a computer science and electrical engineer and Dr Daugherty is a Software Engineer. As Dr Daugherty further investigated the software, Dr Lively was able to learn more information and became more aware of the effect the unstructured software would have on the monitor system as a whole.

C DR WILKINS IS CORRECT IN HER DEPOSITION

The defendant CAS raised the question with the court about the ability for baby India to survive this SIDS event. As is indicated in a conversation with Dr. Ross, India's pathologist, a child can survive an event that India was going through and that would be a "near SIDS" event. The only thing that has to happen is that the infant is stimulated quick enough to correct the breathing pattern and/or heart rate. CPR would do the same thing if the parent were notified in prompt fashion. Dr. Ross is willing to testify to this fact if she is provided the opportunity.

CONCLUSION

Both Lively and Daugherty affidavits should be accepted by this Court along with their depositions. Daugherty and Lively both said the AMI Plus code was not structured properly, and Daugherty said it contained goto statements that lead to "spaghetti code." They both testified unequivocally that this condition could cause a failure and to find the problem that did cause the alleged failure, one would have to find the software coding error or bug. A year after the depositions were complete, Dr. Lively and Dr. Daugherty were able to locate 434 defective lines of code known as goto statements. The affidavits were intended to clarify their depositions in order to specify what the exact defective coding was. Further, Daugherty clarifies his deposition testimony in which he knew little about the log, by stating that the code structure causes the log to not be reliable based on the additional discovery that had been completed. The spaghetti code itself has never been the defect, as has been clarified by the Plaintiffs.

experts – the defective lines of code (‘ goto’ statements) created the unstructured code (spaghetti code) which allowed for the error to occur, the system to be poorly maintained, and any testing being nearly impossible ⁴ (See Exhibits 5 and 6)

Under the *Cothran* factors or any other test the defense proposes, exclusion of these experts or affidavits is clearly not warranted Further, as is indicated in Baughman V American Telephone and Telegraph Company, et al 410 S E 2d 537 (SC 1991), “Since it is a drastic remedy summary judgment ‘should be cautiously invoked so that no person will be improperly deprived of a trial of the disputed factual issues This means, among other things, that summary judgment must not be granted until the opposing party has had a full and fair opportunity to complete discovery ” Further, the

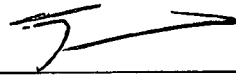
⁴ Plaintiffs hereby incorporate by reference the previously submitted material as exhibit 5

Affidavits and Depositions of
Donna Wilkins
April Simmons
Walter Daugherty
Anita Kelly
Katherine Wright
Lucille Frazier
Olivia Glover
Steven Elliott
Scott Lambert
Henry Triebel
Ron Jeffrey
Kareem Graves
William Lively
Frank Painter
Tara Graves

Any and all discovery responses in the Smith v CAS et al matter
Approximately 35 banker boxes of other similar incidents and reports of malfunction
All monitor logs for the night in question
Medical records for India Graves
EMS run report
Report of Autopsy for India Graves
Reports from the FDA regarding the AMI Plus Monitor
CAS documentation on the AMI and AMI PLUS Monitors
CAS documentation on AMI and AMI PLUS Monitor complaints from distributors
Smith v CAS et al exhibits depositions and affidavits

plaintiff restates its request to the Court to allow the experts to testify in person prior to any exclusion being made. Finally, Dr. Ross is in agreement to testify, given the opportunity, that having SIDS symptoms does not mean death if the parents are able to stimulate the infant promptly.

Respectfully submitted



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Georgetown, South Carolina
March 1, 2010

STATE OF SOUTH CAROLINA

COURT OF COMMON PLEAS

COUNTY OF ORANGEBURG

FIRST JUDICIAL CIRCUIT

CASE NO 08-CP-38-826

KAREEM J GRAVES AND TARA)
GRAVES, INDIVIDUALLY AND AS)
DULY APPOINTED PERSONAL REPRESENTATIVES OF THE ESTATE OF)
INDIA IYANNA GRAVES,)

PLAINTIFFS)

versus)

CAS MEDICAL SYSTEMS, INC ,)
ET AL ,)

DEFENDANT)

MOTIONS HEARING

TRANSCRIPT OF RECORD

DATE

FEBRUARY 4, 2010

BEFORE

HONORABLE JAMES C WILLIAMS, JR , PRESIDING JUDGE

APPEARANCES

THOMAS WILLIAM WINSLOW, ESQUIRE
J EDWARD BELL, III, ESQUIRE

ATTORNEYS FOR PLAINTIFFS

CLARKE W DUBOSE, ESQUIRE

ATTORNEY FOR DEFENDANTS

HARRY A WALKER (MRS)
COURT REPORTER, FIRST JUDICIAL CIRCUIT
POST OFFICE BOX 127
ROWESVILLE, SOUTH CAROLINA 29133

1 MR. BELL BUT I WOULD LIKE TO PUT
2 THIS, I'D LIKE TO READ THIS INTO THE RECORD AND THEN
3 MAKE A COPY FOR THE RECORD THIS IS THE MAN THAT THEY
4 SAY WE'RE TAKING OUT OF CONTEXT NOW, JUDGE, I
5 RECOGNIZE THAT IN MANY CASES ONE OF THE TESTS TO
6 DETERMINE DEFECT IS WHETHER YOU CAN REPLICATE THE
7 DEFECT, REPLICATE THE ERROR, REPLICATE THE
8 MALFUNCTION I POSIT TO YOU IN THE ISSUE OF SOFTWARE
9 AND SOFTWARE DESIGN THAT IF THE DESIGN ITSELF STOPS
10 YOU FROM BEING ABLE TO REPLICATE THE ERROR OR THE
11 DEFECT THEN THAT CANNOT BE USED AS A MEASURE OF
12 WHETHER THE EXPERT DID THEIR JOB OR NOT I'LL GO BACK
13 TO THE IBM PC WE KNOW, AND THAT HAS HAPPENED TO ME,
14 AND I DARE SAY, JUDGE, IT'S HAPPENED TO YOU IN THE
15 PAST, MAYBE THE NEW COMPUTERS DON'T DO IT AS MUCH
16 HOW MANY TIMES HAS IT HAPPENED, WHEN YOUR COMPUTER
17 FREEZES UP THE ONLY WAY TO FIX IT IS UNPLUG IT, TURN
18 IT OFF, LET IT REST, PLUG IT BACK IN, AND IT'S
19 WORKING THEY ARE UNABLE TO DIAGNOSE THAT PROBLEM AND
20 WHAT CAUSED IT AND IT'S THE PROBLEM, IF YOU'LL READ
21 THESE, THE LITERATURE THAT WE'VE JUST RECENTLY
22 SUBMITTED AND FILED WITH THE COURT, IT TALKS ABOUT IT
23 IT'S WELL KNOWN IN THE INDUSTRY THAT THIS KIND OF
24 ERROR, OR THIS KIND OF SOFTWARE CAN OCCUR, THIS KIND
25 OF DESIGN CAN CREATE THAT SITUATION, AND SO, YES, WE

1 MR DUBOSE I HAVE A DIFFERENT
2 EDITION

3 MR BELL OKAY WELL, ANYWAY,
4 HERE'S A QUOTE "CONSIDER A ONE HUNDRED LINE PROGRAM
5 AND THE LANGUAGE, C " NOW, JUDGE, I DON'T KNOW WHAT
6 LANGUAGE C MEANS, BUT THAT'S WHAT HE'S USING "AFTER
7 SOME BASIC DATA DECLARATION THE PROGRAM CONTAINS TWO
8 NESTED LOOPS THAT EXECUTE FROM ONE TO TWENTY TIMES
9 EACH DEPENDING ON CONDITIONS SPECIFIED AT INPUT
10 INSIDE THE INTERIOR LOOP FOUR IF THEN ELKS
11 CONSTRUCTS," THAT'S THE WHAT IF, THEN THIS LANGUAGE,
12 "FOUR IF THEN ELKS CONSTRUCTS ARE REQUIRED THERE ARE
13 APPROXIMATELY TEN TO THE FOURTEENTH POWER POSSIBLE
14 PATHS THAT MAY BE EXECUTED IN THIS PROGRAM " TEN
15 TIMES TEN TO THE FOURTEENTH POWER IS AN ASTRONOMICAL,
16 IT'S IN THE BILLIONS "TO PUT THIS NUMBER IN
17 PERSPECTIVE WE ASSUME THAT A MAGIC TEST PROCESSOR,
18 MAGIC, QUOTE, BECAUSE NO SUCH PROCESSOR EXISTS, HAS
19 BEEN DEVELOPED FOR EXHAUSTIVE TESTING THE PROCESSOR
20 CAN DEVELOP A TEST CASE, EXECUTE IT, AND EVALUATE THE
21 RESULTS IN ONE MILLISECOND " ONE MILLISECOND WHICH IS
22 ONE ONE THOUSANDTH'S OF A SECOND, "WORKING TWENTY-FOUR
23 HOURS A DAY, THREE HUNDRED AND SIXTY-FIVE DAYS A YEAR,
24 THE PROCESSOR WOULD TAKE THREE THOUSAND ONE HUNDRED
25 AND SEVENTY YEARS TO TEST THE PROGRAM THIS WOULD

1 UNDENIABLY CAUSE HAVOC IN MOST DEVELOPMENT SCHEDULES
2 THEREFORE, IT IS REASONABLE TO ASSERT THAT EXHAUSTIVE
3 TESTING IS IMPOSSIBLE FOR LARGE SOFTWARE SYSTEMS "
4 SO, WHEN COUNSEL TELLS YOU, JUDGE, THEY HAVEN'T TESTED
5 IT, THEY CAN'T REPLICATE IT, AND THIS, AND THEIR OWN
6 TESTIMONY SAYS THIS SPAGHETTI CODE, THIS PARTICULAR
7 KIND OF STRUCTURED CODE MAKES IT SUCH THAT THE PATHS
8 DON'T TAKE THE SAME PATH EVEN WITH THE SAME LINE OF
9 CODE, AND BECAUSE OF THAT IT'S PRONE TO ERROR AND IT'S
10 VIRTUALLY IMPOSSIBLE UNLESS YOU JUST ARE LUCKY WHEN IT
11 HAPPENS TO BE THERE AND HAVE A MACHINE HOOKED UP TO
12 IT SO, FOR COUNSEL TO SAY, JUDGE, THEY ARE NOT
13 RELIABLE BECAUSE THEY DIDN'T TEST IT, THEY JUST GAVE
14 UP, WHICH IS WHAT HE SAID TO THIS COURT, I THINK IS
15 LAUGHABLE NOW, HAVING SAID THAT, JUDGE, WE THINK
16 THAT THE FACTS THEMSELVES LEND THIS CASE TO A DENIAL
17 OF SUMMARY JUDGEMENT JUST ON THE, WITHOUT EXPERTS ON
18 THE OTHER HAND, JUDGE, THE WARRANTY CLAIM IN THIS
19 CASE, WITHOUT A SINGLE EXPERT, YOU DON'T HAVE TO SHOW
20 WHAT THE DEFECT IS, WHAT YOU HAVE TO SHOW IS, THE
21 MACHINE OR THE APNEA MONITOR DID NOT PERFORM PROPERLY
22 AND THAT THEY CAN'T ARGUE, AT LEAST IT IS A QUESTION
23 FOR THE JURY IF WE ALSO CAN SHOW, WHICH WE CAN,
24 JUDGE, WE HAVE THIRTY-FIVE BANKER BOXES FULL OF
25 COMPLAINTS ON THIS MACHINE, AND WE'VE BROKEN THOSE

1 DOWN TO WHERE WE BELIEVE THERE ARE AT LEAST FIFTY
2 OTHER SIMILAR INCIDENCES THAT ARE SIMILAR TO OURS THAT
3 HAPPENED DURING THIS TIME FRAME, OUR EXPERTS ARE
4 SAYING THAT BECAUSE THE CODE IS SO HARD TO DETERMINE
5 WHAT HAPPENED, AND EVEN THE COMPANY CAN'T DETERMINE
6 WHAT HAPPENED IF YOU NOTICE ON CLARKE'S BOARD --
7 PLEASE TURN THAT BACK ON FOR ME, CLARKE -- HE SAID,
8 THE COMPLAINTS HAVE NOT BEEN, QUOTE, VERIFIED THAT'S
9 A TERM HE USED, AND THAT'S A, THAT'S A NICE WAY TO
10 SAY, JUDGE, BECAUSE WE CAN'T PROVE THEM THEY DON'T
11 EXIST TOYOTA IS SAYING RIGHT NOW, WELL, WE CAN'T
12 REPLICATE THIS FOOT PEDAL PROBLEM BUT WE NOW KNOW IT
13 HAS TO BE ELECTRONIC AND THERE'S NO WAY TO REPLICATE
14 IT, YOU CAN'T REPLICATE IT AND IF YOU ARE REQUIRED
15 TO REPLICATE IT YOU WOULD NEVER BE ABLE TO BRING A
16 CLAIM FOR DEFECTIVE PRODUCT IN AN ELECTRONIC SITUATION
17 OTHER THAN A MECHANICAL OR A LEAD PROBLEM OR SOMETHING
18 LIKE THAT BUT IF THERE'S A MALFUNCTION OF THE
19 ELECTRONICS OF THESE CODES THE PRIOR CONSTRUCT THAT
20 SAYS, THESE ARE THE FOUR OR FIVE THINGS THAT ARE, THAT
21 CAN BE USED TO DISQUALIFY A WITNESS, BUT THOSE ARE NOT
22 IRON CLAD, EVERY CASE HAS TO STAND ON ITS OWN AND IF
23 THEIR OWN EXPERT SAYS YOU CAN'T TEST IT, WHY ARE THEY
24 NOW SAYING, BECAUSE WE CAN'T REPLICATE IT WE SHOULD BE
25 KICKED OUT? SO, I ASK THE COURT TO -- GO ON UP TO THE

1 NEXT ONE, CLARKE, WHERE YOU SAID THE OTHER COMPLAINTS
2 WERE NOT - - -

3 MR DUBOSE I THINK IT'S RIGHT
4 THERE

5 MR BELL NO, YOU SAID THEY WERE
6 NOT VERIFIED I REMEMBER READING THAT A MINUTE AGO

7 MR DUBOSE I'LL JUST RUN THROUGH
8 THEM I'M GOING BACKWARDS NOW

9 MR BELL OKAY

10 MR DUBOSE NOT THERE?

11 MR BELL, NO I'M TALKING ABOUT
12 THE OTHER -- YOU RECALL THAT LANGUAGE, I'M SURE

13 MR DUBOSE WELL, AND THAT'S
14 CORRECT, YOUR HONOR, THE - - -

15 THE COURT WHERE IT SAYS, RELIES
16 ON UNPROVEN COMPLAINT

17 MR BELL WELL, UNPROVEN BECAUSE
18 IN THEIR TERM, IF THEY CAN'T REPLICATE IT, IT'S
19 UNPROVEN JUDGE, WHAT THEY DID - - -

20 THE COURT WELL, MR BELL, IF
21 THEY'RE ALL THESE HUNDREDS AND HUNDREDS OF OTHER
22 FAILURES, SURELY SOME COURT CASE SOMEWHERE, SOMEBODY'S
23 BEEN ABLE TO THE FIND A PROBLEM

24 MR BELL, WELL, SEE, THAT'S THE
25 FALLACY OF - WITH ALL DUE RESPECT, JUDGE, AND I

1 JUST BECAUSE A MONITOR MAY HAVE TO
2 BE RECALLED, OR JUST BECAUSE AN INSTALLATION MAY BE
3 HIGH, I'M NOT AWARE OF A SINGLE CASE IN THIS COUNTRY
4 THAT SAYS YOU GET KICKED OUT ON SUMMARY JUDGEMENT
5 BECAUSE THAT MIGHT BE THE CASE THE FACT IS, THE
6 EXPERTS IN THEIR DEPOSITION GO AT GREAT LENGTHS TO
7 EXPLAIN WHAT SHOULD HAVE HAPPENED, THEY HAVE HAD
8 STRUCTURED CODE, AND WITH STRUCTURED CODE YOU HAVE
9 VERY LITTLE LIKELIHOOD, IF ANY, TO HAVE THESE
10 PROBLEMS AND IF YOU A PROBLEM YOU CAN DIRECTLY GO
11 AND FIND IT WE ARE NOW THE FIFTY-FIRST OR THE FIFTY-
12 SECOND PROBLEM IN THIS LONG LIST OF PROBLEMS OUT OF
13 THE THIRTY-FIVE BANKERS BOXES OUR EXPERTS WE THINK
14 WILL SHOW ABOUT FIFTY PRIOR SIMILAR INSTANCES WE GOT
15 FROM THE, I GUESS FROM THE FDA THIRTY-FIVE BANKERS
16 BOXES FULL OF COMPLAINTS THE -- JUST TO SHOW, JUDGE,
17 HOW WE MISTRUST THE REPORTING REQUIREMENT COMPLIANCE
18 BY THE DEFENDANT, MR HASTINGS, WHO HASTINGS WHO
19 HANDLED THE PRIOR CASE IN TEXAS THAT THESE TWO EXPERTS
20 TESTIFIED FOR FOUND OUT THAT OUR FAILURE WAS NOT EVEN
21 REPORTED TO THE FDA UNTIL AFTER HE BROUGHT IT UP IN
22 HIS CASE SO, IF THAT'S TRUE, AND IF THAT'S THE WAY
23 THEY DID THEIR REPORTING REQUIREMENTS, NO TELLING HOW
24 MANY OTHER FAILURES HAVE NOT BEEN REPORTED ON THE
25 OTHER HAND, SIX HUNDRED THOUSAND DOLLARS TO WRITE A

RECEIVED
SEP 21 2010
SC Court of Appeals

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

PROOF OF SERVICE

I certify that I have served the APPELLANTS REPLY TO CAS MEDICAL SYSTEMS, INC 'S MOTION TO STRIKE PORTIONS OF APPELLANTS' DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL AND INITIAL BRIEF AND FOR AN EXTENSION OF TIME TO FILE ITS INITIAL BRIEF AND DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL UNTIL SUCH TIME AS THIS MOTION IS RESOLVED AND ANY AMENDED BRIEF AND DESIGNATION IS FILED, by depositing a copy of it in the United States Mail, postage prepaid, on July 26, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889



J Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

September 20, 2010
Georgetown, SC

September 20, 2010



VIA FIRST CLASS US MAIL

The Honorable Jeanette F Barber
Clerk of Court for the S C Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia, SC 29211

232 King Street
Georgetown SC 29440
PH 843 546 2408
FAX 843 546 9604

Re Kareem J Graves, et al , v CAS Medical Inc , et al
Civil Action No 08-CP-38-826

434 C North Guignard Drive
Post Office Box 460
Sumter SC 29151
PH 803 778 6531
FAX 803 773 3693

Dear Ms Barber

Enclosed please find for filing are two copies of the Appellants Reply to CAS Medical Systems Inc's Motion to Strike Portions of Appellants Designation of Matter to be Included in the Record on Appeal and Initial Brief and Designation of Matter to be Included in the Record on Appeal Until Such Time as This Motion is Resolved and any Amended Brief and Designation in Filed, as well as the Proof of Service for same

www.BellLegalGroup.com

I kindly request that you clock one copy of the Appellants' Reply and Proof of Service and return them to me in the enclosed self addressed stamped envelope

With kindest regards, I am

Very truly yours,

Thomas W Winslow

RECEIVED

SEP 21 2010

SC Court of Appeals

TWW/rkb
Enclosures

cc Clarke W DuBose, Esq

THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

RECEIVED
47653
SEP 10 2010
2505
SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
COURT OF COMMON PLEAS
JAMES C WILLIAMS, JR , CIRCUIT COURT JUDGE

CASE NO 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

APPELLANTS,

VS

CAS MEDICAL SYSTEMS, INC

RESPONDENT

**CAS MEDICAL SYSTEMS, INC 'S MOTION TO STRIKE PORTIONS OF
APPELLANTS' DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD
ON APPEAL AND INITIAL BRIEF AND FOR AN EXTENSION OF TIME TO FILE ITS
INITIAL BRIEF AND DESIGNATION OF MATTER TO BE INCLUDED IN THE
RECORD ON APPEAL UNTIL SUCH TIME AS THIS MOTION IS RESOLVED AND
ANY AMENDED BRIEF AND DESIGNATION IS FILED**

Pursuant to Rule 210(c), SCACR, the Respondent CAS Medical Systems, Inc ("CAS") hereby moves to strike portions of the designation of matter to be included in the record on appeal ("designation") and initial brief of appellants ("initial brief") filed in this matter. Specifically, the designation includes and the initial brief cites to several items not before the

trial court Prior to filing this motion counsel for CAS attempted to resolve this matter with counsel for the appellants to no avail The significant correspondence is attached as Exhibit 1 to this motion

ARGUMENT

Pursuant to Rule 210(c), SCACR, a record on appeal shall not “contain matter which was not presented to the lower court or tribunal ” See Jean H Toal et al *Appellate Practice in South Carolina* 131 (2d ed 2002) If a party designates matter in violation of this rule, the appropriate course of action for the opposing party is to file a motion to strike *Id* at 261 CAS seeks to strike the below listed items from the designation, together with any corresponding reference in the initial brief The disputed items are numbers 42 (AMI Caregiver Manual), 44 (FDA Adverse Event Reports), 47 (Dijkstra Article), and 48 (Pressman Textbook) on the designation

As far as CAS can determine from the extensive record and correspondence with opposing counsel, these items were not presented to the trial court in conjunction with its grant of summary judgment to CAS As shown through the correspondence, Appellant referenced these materials but CAS has been unable to locate them in the submissions to the trial court A reference alone is insufficient to satisfy Rule 210, SCACR To the extent that portions of any of these, particularly items 42, 47, and 48, were read into the record or quoted in memoranda, CAS has no objection to those portions being designated

With regard to number 44, a collection of 11 FDA event reports was presented to the trial court, but with the possible exception of one of these reports, none are part of the group of 50 alarm failure reports referenced in the initial brief at page 21 and elsewhere Although referred to below, these complaints were not presented to the trial court at any time CAS thus moves

that both the designation and initial brief be restricted to the collection of 11 complaints that were presented to the trial court for its consideration in this matter

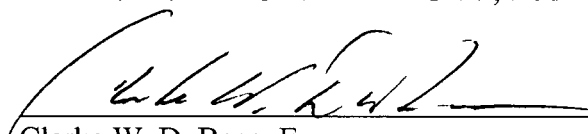
In order to assist the Court in resolving this matter, CAS attaches a list of the attachments to the March 1, 2010 brief of the Appellants in opposition to CAS's motion for summary judgment as Exhibit 2. CAS further represents that the transcript reflects that no exhibits were proffered at the February 4 and March 10, 2010 hearings in this matter.

CONCLUSION

Accordingly, these items must be struck from the designation and initial brief filed in this matter. CAS also seeks an extension of time to file its initial Respondent's Brief until 30 days after this motion has been resolved by the Court.

Respectfully submitted,

HAYNSWORTH SINKLER BOYD, P A

A handwritten signature in black ink, appearing to read 'Clarke W. DuBose', is written over a horizontal line.

Clarke W. DuBose, Esq.

Sarah Spruill, Esq.

Post Office Box 11889

Columbia, South Carolina 29211-1889

803 779 3080

Attorneys for Respondent

September 10, 2010

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, PA

ATTORNEYS AND COUNSELORS AT LAW

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CLARKE W. DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

August 10 2010

VIA EMAIL

Thomas W Winslow Esq
Bell Legal Group
P O Box 2590
Georgetown SC 29442

Re *Graves v CAS Medical Systems Inc*
Civil Action No 08-CP-38 826
HSB File No 08965 0013

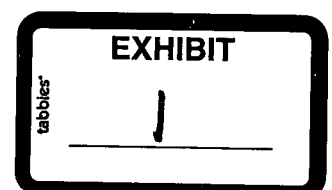
Dear Tom

I am writing regarding plaintiffs Designation of Matter for Inclusion in the Record of Appeal in the above case

First, there are two designations of matter that appear to be immaterial to the appeal and ask that you explain why these are needed in the record SCRAP 209(b) prohibits the inclusion of any matter which is not relevant to the appeal The following falls within that category

- 10 Defendant's Motion to Compel production of Native File Format Version of Plaintiffs Expert's Affidavit dated October 31, 2008
- 12 CAS Medical Systems, Inc.'s Motion to Amend Answer dated March 6 2009

For two other designations I need some clarification Item number 40 designates a hearing transcript but there have been two hearings Please let me know which hearing transcript you are designating Item number 44 designates USFDA Adverse Event Reports for the AMI monitor but again is not specific The only ones I find in the record appears as Exhibit 8 to your memorandum entitled Plaintiffs Opposition to Motion for Summary Judgment dated October 23 2009 I note that most of the complaints therein are ESD complaints which your experts have testified was not the cause of the problems they claim to have identified so I wonder if this is what you mean to designate Please let me know if these are the ones you are referring to and if not, please direct me to the ones you are



Thomas W Winslow, Esq
August 10, 2010
Page 2

There are also several designations that I have not been able to locate in the record before Judge Williams. I hope you will forgive me in advance for any that I may have overlooked. At designation number 33 you have cited to Frank Painter's deposition in three places that I have not found as being in the record below. They are page 66, lines 11-13; page 72, lines 15-20; and pages 117-19. Please advise where these were placed in the trial court record.

At number 42 you have designated the AMI Caregiver's Manual. Please advise where this appears in the record below, and also advise where in the record appears your numbers 47 and 48, reproduced below.

47 Dijkstra, Edsger W. Notes on Structured
<http://userweb.cs.utexas.edu/users/EWD/ewd02xx/EWD249.PDF> and
Programming

48 Pressman, Roger S., Software Engineering, 7th Ed. 298-299 (2010)

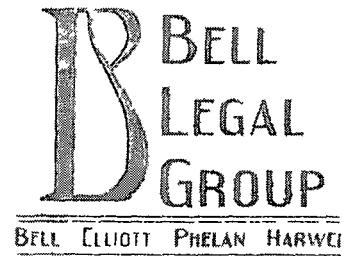
We will have to object to these to the extent that they are not in the record, assuming plaintiffs will not withdraw them voluntarily. I would like to hear from you concerning each of these by Friday of this week if at all possible.

Yours truly,



Clarke W. DuBose
CWD/kg
(Doc. 1388371)

August 20, 2010



Clarke W. Dubose Esquire
Haynsworth Sinkler Boyd P.A.
Post Office Box 11889
Columbia, South Carolina 29211-1889

Re: Kareem J. Graves et al. v. CAS Medical

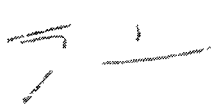
Dear Clark:

This is in regard to your letter dated August 10, 2010. I have reviewed your letter and we are willing to withdraw numbers 10 and 12. However, it appears if you look through the record, especially the briefs we do cite the remaining items that you have listed. Further in regards to Frank Painter's testimony, the AMI caregiver's manual and the articles were all cited in the hearings and also in our written material.

Therefore, we are willing to withdraw 10 and 12 although we do feel they are relevant to this appeal they are not necessary. However, the remaining material does appear to have been cited and we do believe it is relevant to the situation.

We look forward to hearing back from you and/or getting this resolved should you wish to do so.

With kindest regards, I remain

Very truly,

Clarke W. Dubose
Attorney at Law

cc: WA 0111

I wrote you a letter stating that we would remove a couple of them however the article were referenced

The amended was just in regard to a request from the clerk Once you get the letter and we come to an agreement or not we can revise it



Thomas William Winslow
Attorney at Law
232 King Street
Georgetown, SC 29440
843-546-2408
843-546-2919 (fax)

From DuBose, Clarke [mailto:cdubose@hsblawfirm.com]
Sent Monday, August 23, 2010 11:24 AM
To Thomas Winslow
Cc Spruill, Sarah
Subject RE: message

Tom-

I did not hear from you on Friday. Your amended designations, which I received today along with your amended brief, do not change the designation so they do not address the subject of my recent letter. Please let me know when I will hear from you about this. We would like to avoid filing a motion but will be forced to should you not attend to this right away.

Thanks

-Clarke

From Thomas Winslow [mailto:TWinslow@edbelllaw.com]
Sent Tuesday, August 17, 2010 6:35 PM
To DuBose, Clarke
Subject message

Clarke -

Just got your message. I have been in trial and have a mediation tomorrow. Let me take a look Thursday and get back to you Friday.

Tom



9/10/2010

We are currently getting references for you however it takes time to review all these pages



Thomas William Winslow
Attorney at Law
232 King Street
Georgetown, SC 29440
843-546-2408
843-546-2919 (fax)

From DuBose, Clarke [mailto:cdubose@hsblawfirm.com]
Sent Wednesday, August 25, 2010 3:48 PM
To Thomas Winslow
Subject RE: Graves

I received the letter earlier today. Thanks. It does not cover all of the questions I had, however. A phone call should help us resolve everything quickly. Please give me a call when you get free.

Clarke W. DuBose, Esquire
Haynsworth Sinkler Boyd, P.A.
1201 Main Street, 22nd Floor
Columbia, South Carolina 29201
803 540 7833
cdubose@hsblawfirm.com

From Thomas Winslow [mailto:TWinslow@edbelllaw.com]
Sent Wednesday, August 25, 2010 3:39 PM
To DuBose, Clarke
Subject FW: Graves

In meeting but heard you called. Attached is the letter.

Tom



9/10/2010

DuBose, Clarke

From Thomas Winslow [TWinslow@edbelllaw.com]
Sent Thursday August 26 2010 4 57 PM
To DuBose, Clarke
Cc Spruill, Sarah
Subject Re: Graves

The manual is in the brief also

Sent from my iPhone

On Aug 26, 2010, at 2 28 PM, "DuBose, Clarke" <cdubose@hsblawfirm.com> wrote

Tom-

Thanks for getting back to me. As you suggested, I have looked at your March 1 memo and exhibits but now wonder if there are exhibits that I did not receive. I do not find attached, in what I received, the referenced pages from the Pressman book, the Dijkstra article entitled "Notes on Structured Programming," (I do find his letter to the editor "Go To Statements Considered Harmful") or any FDA complaints.

Regarding the complaints, I have pointed out that the only ones I can find of record are attached as Exhibit 8 to your memorandum entitled Plaintiffs' Opposition to Motion for Summary Judgment dated October 23, 2009, and asked what complaints you are referring to in your designations, but you apparently have overlooked identifying them for me. I still need you to do this so I can know what you are designating. Please do this now.

You also have not yet told me which hearing transcript you are designating, but since I want them both designated, I suppose that is a formality.

Finally, I do not see where the Caregiver Manual was ever attached.

Please let me know if I am missing exhibits attached to the March 1, 2010, memo or otherwise have missed where you have attached this material below as part of the record.

Thanks

Clarke

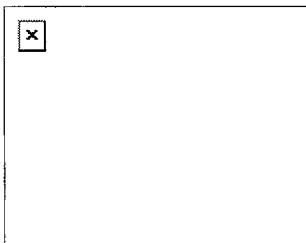
From Thomas Winslow [mailto:TWinslow@edbelllaw.com]
Sent Thursday, August 26, 2010 1 42 PM
To DuBose, Clarke
Subject Graves

A letter has been dictated and sent to you. Each of these items was referenced in the transcripts.

9/10/2010

motions and briefs. However, look at the 3/1/2010 Brief Supporting the Testimony of Plaintiff's Experts in which every single designation in question is attached as an exhibit for the Court.

Thank you, Tom



Thomas William Winslow
Attorney at Law
232 King Street
Georgetown, SC 29440
843-546-2408
843-546-2919 (fax)

CONFIDENTIALITY NOTICE This e-mail and any files transmitted with it are confidential and may contain information which is legally privileged or otherwise exempt from disclosure. They are intended solely for the use of the individual or entity to whom this e-mail is addressed. If you are not one of the named recipients or otherwise have reason to believe that you have received this message in error, please immediately notify the sender and delete this message immediately from your computer. Any other use, retention, dissemination, forwarding, printing, or copying of this e-mail is strictly prohibited.

IRS CIRCULAR 230 NOTICE Internal Revenue Service regulations generally provide that for the purpose of avoiding federal tax penalties, a taxpayer may rely only on formal written advice meeting specific requirements. Any tax advice in this message or in any attachment to this message does not meet those requirements. Accordingly, any such tax advice was not intended or written to be used, and it cannot be used, for the purpose of avoiding federal tax penalties that may be imposed on you or for the purpose of promoting, marketing, or recommending to another party any tax-related matters. mmcorp

August 27 2010

Clarke W Dubose Esquire
Haynsworth Sinkler Boyd P A
Post Office Box 11889
Columbia South Carolina 29211 1889

Re Kareem J Graves et al v CAS Medical

Dear Clark

In regard to the letter that you wrote us on August 10 2010 please find this letter in which we reference the matters you had in question specifically 33 42 40 44 47 and 48

In regard to 40 we are submitting both the transcripts from March 17th and from February 4th

In regard to 33 42 44 47 and 48 each and every single one of these items are referenced and attached to the court record in the March 1 2010 brief supporting testimony of the Plaintiff's experts This brief was filed with the court and copied to you

Further these other documents are found in other locations specifically 48 was addressed directly to the transcript of February 4 2010 47 was discussed in the same transcript along with the Plaintiff's opposition of summary judgment as an attachment 44 was in the transcript of February 4 2010 as it was only required that it be made a recorded exhibit It is relevant and was based upon the designation It was not only mentioned in the brief supporting the testimony of plaintiff's expert dated March 1 2010 prior to the Order of Judge Williams on April 26, 2010 They were also mentioned in other briefs and/or transcripts

I hope this answers your questions and we look forward to receiving your brief in regard to this appeal

With kindest regards I remain

Yours very truly



Thomas W Winslow
Attorney at Law

TWW/plm



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Sinkler Boyd, PA.

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WEBSITE www.hsblawfirm.com

CLARKE W. DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

September 1, 2010

VIA EMAIL

Thomas W Winslow, Esq
Bell Legal Group
P O Box 2590
Georgetown SC 29442

Re *Graves v CAS Medical Systems Inc*
Civil Action No 08 CP 38-826
HSB File No 08965 0013

Dear Tom

Thank you for your letter of August 27 regarding plaintiffs Designation of Matter for Inclusion in the Record of Appeal in the above case. I appreciate your efforts to resolve my questions. Unfortunately, I must come back to you one more time. I apologize if I was not clear before and hope that I do a better job below of explaining that what I need are specific exhibit numbers or exhibit transcript references where the designations at issue are located.

In your letter, you state that Designations 42, 44, 47, and 48 are referenced and attached to the court record in the March 1, 2010 Brief Supporting the Testimony of the Plaintiffs Experts. I wrote earlier that I could not find these as exhibits and am now writing to ask for the exhibit numbers assigned to each of these when they were attached to that memo. To help, below is the list of exhibits that were attached to the copy of that memo served on me and on the copy sent by e-mail from your office to Judge Williams, with a copy to me.

- Ex 1 - CV – Daugherty
- Ex 2 - CV – Lively
- Ex 3 Monitor Printout All Study Log
- Ex 4 - Daugherty memo re Go To statements with highlighted goto statements in ledalarm asm module
- Ex 5 Lively Affidavit re Spaghetti Code, Goto's and Structured Code with the following attachments (the letter designations are mine)

Thomas W Winslow Esq
September 1 2010
Page 2

- a Exhaustive Testing,”
- b ‘Automatic Generation of Detection Algorithms for Design Defect,
- c Spaghetti Code,
- d Pages 147 150 of ‘Communications of the ACM including letter entitled Go To Statements Considered Harmful ’ and
- e “Textbook Treatment of Structured Programming Standards and Guidelines”

Ex 6 Affidavit Daugherity Letter to Wilson dated 3/1/10

There were no other exhibits attached I do see where on page 25, note 4, of that memorandum you state that you are incorporating by reference a large amount of material If this is what you are referring to, please state that specifically

In your letter you also state that Designation 44 was in the transcript of the February 4 2010 [hearing] as it was only required that it be made a recorded exhibit You also state that Designation 48 was addressed directly to the transcript I am not sure what you mean by the comment on Designation 48 or the statement ‘it was only required that it be made a recorded exhibit I do see where Ed Bell published a short passage from the Pressman book and the complaints were discussed at the hearing, but as near as I can tell neither were ever filed in whole or in part with the judge or clerk of court That is the question If they were filed or handed up to the court without the formality of filing, please direct me to the pages of the transcript showing that

We will have to move to strike these references from the Designations unless you can show me where they were filed or handed to the court at the hearing or tell me what exhibit numbers they were assigned in your March 1, 2010, or other memorandum, and show also that they were actually submitted to the court at that time If they were, I would like clocked copies for my file

I agree with you that this effort has gone on long enough and so I ask that you provide me with these exhibit numbers and memorandum name(s) and date(s) if not the March 1 2010

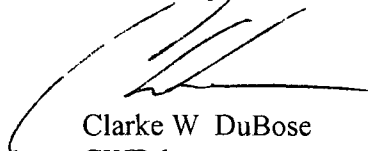
Haynsworth
Sinkler Boyd, PA.

ATTORNEYS AND COUNSELORS AT LAW

Thomas W Winslow, Esq
September 1, 2010
Page 3

memorandum, at your very earliest convenience Absent the above-requested information we
will file our motion on Friday, September 3

Yours truly,

A handwritten signature in black ink, appearing to read "Clarke W DuBose", with a long horizontal stroke extending to the right.

Clarke W DuBose
CWD kg

cc Sarah Spruill, Esq
(Doc 1397716)

September 2, 2010

Clarke W Dubose, Esquire
Haynsworth Sinkler Boyd, P A
Post Office Box 11889
Columbia, South Carolina 29211-1889

Re Kareem J Graves, et al , v CAS Medical

Dear Clark

I am in receipt of your email dated September 1, 2010, regarding Designations 42, 42, 47 and 48 These were incorporated as exhibits by reference in the March 1 2010 briefs supporting the testimony of Plaintiff's experts

Further, as you have acknowledged number 48 was read and submitted to the Court on pages 58-59 of the hearing transcript of February 4, 2010 Both 44 and 47 were a part of the Plaintiff's Opposition to Summary Judgement dated October 23, 2009 as attachments For matter 44, it was put into the record on pages 60 61 and page 112 of the February 4, 2010 hearing transcript In regard to matter 42, it is referenced in the Brief supporting the testimony of Plaintiff's Experts dated March 1, 2010

Each of these requests are included in the record and this seems to be ongoing without reason However, I look forward to receiving your brief which appears to be due at the end of this month so we can move expeditiously to have our appeal to get this matter heard for this family

With kindest regards, I remain

Yours very truly,



Thomas W Winslow
Attorney at Law

TWW/scs

BBELL
LEGAL
GROUP

BELL ELLIOTT PHELAN HARWELL

232 King Street
Georgetown SC 29440
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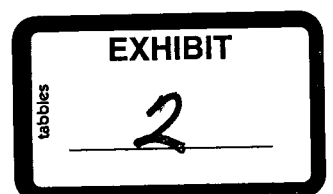
434 C North Guignard Drive
Post Office Box 460
Sumter SC 29151
PH 803 778 6531
FAX 803 773 3693

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List of Exhibits

Attached to March 1, 2010, Brief Supporting the Testimony of the Plaintiff's Experts

- Ex 1 - CV – Daugherty
- Ex 2 - CV – Lively
- Ex 3 - Monitor Printout “All Study Log “
- Ex 4 - Daugherty memo re Go To statements with highlighted goto statements in ledalarm asm module
- Ex 5 - Lively Affidavit re Spaghetti Code, Goto's and Structured Code with the following attachments
 - a “Exhaustive Testing,”
 - b “Automatic Generation of Detection Algorithms for Design Defect,”
 - c “Spaghetti Code,”
 - d Pages 147-150 of “Communications of the ACM’ including letter entitled “Go To Statements Considered Harmful,” and
 - e “Textbook Treatment of Structured Programming Standards and Guidelines”
- Ex 6 - Affidavit - Daugherty Letter to Winslow dated 3/1/10



THE STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

RECEIVED
SEP 10 2010
SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08-CP-38-826

KAREEM J GRAVES AND TARA GRAVES,
INDIVIDUALLY AND AS DULY APPOINTED
PERSONAL REPRESENTATIVES OF THE
ESTATE OF INDIA IYANNA GRAVES

Appellants,

vs

CAS MEDICAL SYSTEMS, INC

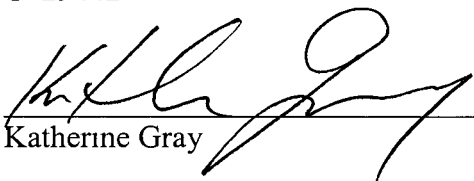
Respondent

CERTIFICATE OF SERVICE

I, the undersigned employee of Haynsworth Sinkler Boyd, P A , do hereby certify that I have this 10th day of September, 2010, caused the foregoing **CAS Medical Systems, Inc's Motion To Strike Portions Of Appellants' Designation Of Matter To Be Included In The Record On Appeal And Initial Brief And For An Extension Of Time To File Its Initial Brief And Designation Of Matter To Be Included In The Record On Appeal Until Such Time As This Motion Is Resolved And Any Amended Brief And Designation Is Filed** to be served via email and U S mail, postage prepaid, on Appellants' counsel of record as shown below

twinslow@edbelllaw.com

Thomas W Winslow, Esq
J Edward Bell, III, Esq
Law Office of J Edward Bell LLC
P O Box 2590
Georgetown, SC 29442


Katherine Gray

COLUMBIA

CHARLESTON

FLORENCE

GREENVILLE

Haynsworth
Sinkler Boyd, PA.

ATTORNEYS AND COUNSELORS AT LAW

1201 MAIN STREET 22ND FLOOR (29201 3226)
POST OFFICE BOX 11889 (29211 1889)
COLUMBIA SOUTH CAROLINA
TELEPHONE 803 779 3080
FACSIMILE 803 765 1243
WEBSITE www.hsblawfirm.com

CLARKE W DUBOSE
DIRECT DIAL NUMBER 803 540 7833
EMAIL cdubose@hsblawfirm.com

September 10, 2010

VIA HAND DELIVERY

Ms Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Case Tracking # 2010161426

Dear Ms Gee

Enclosed are the original and six copies of CAS Medical Systems, Inc 's Motion To Strike Portions Of Appellants' Designation Of Matter To Be Included In The Record On Appeal And Initial Brief And For An Extension Of Time To File Its Initial Brief And Designation Of Matter To Be Included In The Record On Appeal Until Such Time As This Motion Is Resolved And Any Amended Brief And Designation Is Filed, along with the \$25 filing fee

I have also enclosed an extra copy of the Motion and asked that you file-stamp it and return it to me via the bearer of this letter

If you have any questions, please do not hesitate to contact me

Yours truly,



Clarke W DuBose

CWD/kg

Enclosures

cc (w/enclosure)

Thomas W Winslow, Esq

RECEIVED
SEP 10 2010
SC Court of Appeals

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

RECEIVED
AUG 23 2010
SC Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08- CP-38-826

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

Amended Designation of Matter for Inclusion in the Record on Appeal

Pursuant to Rule 209, SCACR, appellant designates the following items for inclusion in the
Record on Appeal

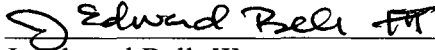
- 1 Order of the Honorable James C Williams, Jr , dated April 8, 2010, and entered on April 8, 2010,
- 2 Order Denying Plaintiff's Motion Under Rule 59, SCRCP of Honorable James C Williams, Jr , dated April 23, 2020, and entered April 26, 2010,
- 3 Amended Summons and Complaint of the Plaintiff dated July 3, 2006,
- 4 Amended Answer to the Amended Complaint dated March 24, 2009,

- 5 Plaintiff's Motion to Alter and Amend and Memorandum in Support of Motion to Alter and Amend dated April 15, 2010,
- 6 Defendant's Memorandum in Opposition to Plaintiff's Motion to Alter and Amend the Court's Judgment dated April 23, 2010,
- 7 Brief supporting Plaintiff's Experts dated March 1, 2010,
- 8 Defendant CAS Medical Systems, Inc.'s Motion for Summary Judgment dated October 5, 2007 (and Affidavit of Lenny Hottin dated October 4, 2007),
- 9 Plaintiff's Opposition to Defendant's first motion for Summary Judgment dated October 23, 2009,
- 10 Defendant's Motion to Compel Production of Native File Format Version of Plaintiffs Expert Affidavit dated October 31, 2008,
- 11 CAS Medical Systems, Inc.'s Second Motion for Summary Judgment dated March 6, 2009,
- 12 CAS Medical Systems, Inc.'s Motion to Amend Answer dated March 6, 2009,
- 13 Plaintiffs' Opposition to Second Motion for Summary Judgment dated March 12, 2009,
- 14 Defendant's Memorandum in Support of Motion for Summary Judgment (dated March 15, 2009),
- 15 Plaintiffs' Opposition to Motion to Strike Affidavits, Exclude Experts' Testimony in Whole or in Part, and to Stay Discovery (dated May 7, 2009),
- 16 Defendant CAS Medical Systems, Inc.'s Memorandum in Support of Motions to Strike Affidavits and to Stay Discovery (dated May 12, 2009),
- 17 Defendant CAS Medical Systems, Inc.'s Amended Motion to Exclude Expert Testimony (dated May 21, 2009),
- 18 Defendant's Memorandum in Support of Motion to Exclude Expert Opinions under Rule 702, SCRE (dated May 28, 2009),
- 19 Memorandum in Response to Defendant's Motion to Exclude Plaintiffs' Experts Opinions and Affidavits (dated July 15, 2009),
- 20 Plaintiffs' Supplemental Memorandum in Opposition to Defendant's Motion to Exclude Expert Opinions Under Rule 702, SCRE, (dated October 23, 2009),

- 21 Defendant's Reply to Plaintiffs' Response to Motion for Summary Judgment (dated November 9, 2009),
- 22 Motions Hearing Transcript of Record held on February 4, 2010,
- 23 Affidavit of Dr William Lively (March 11, 2009),
- 24 Affidavit of Dr Walter Daugherty (April 17, 2009),
- 25 Affidavit of Frank R Painter (October 12, 2007),
- 26 Affidavit of Dr Janice Ross dated (3-3-2010),
- 27 Curriculum Vitae of Dr William Lively,
- 28 Curriculum Vitae of Dr Walter Daugherty,
- 29 Curriculum Vitae of Frank R Painter,
- 30 Curriculum Vitae of Donna Wilkins,
- 31 Supplemental Affidavit of Walter Daugherty dated February 2, 2010,
- 32 Deposition of William M Lively at 60, line 10, 106, lines 1-23, 129, lines 23-25, 144, lines 7-20, 150, lines 16-23,
- 33 Deposition of Frank R Painter (Pl Ex 17) at 66, lines 11-13, 55-57, 72, lines 15-20, 117-119, 175, lines 2-13,
- 34 Deposition of Dr Walter C Daugherty at 33, lines 19, 25, 34, lines 1-10, 36, lines 15-25, 37, lines 1-4, 7-21, 39, lines 19-25, 40, lines 1-6, 50, line 57, 57, lines 4-6, 75, lines 1-8, 86, lines 18-23, 137, lines 4-15, 148, lines 12-13, 163, lines 1-2, 167, lines 13-25, 168, lines 1-3,
- 35 Deposition of Tara P Graves at 74, lines 3-5, 81, lines 1-15, 84, lines 101-102, 85, lines 2-5, 7-25, 88, lines 8-11, 90, lines 8-16, 91, lines 7-10, 96, lines 17-20, 97, lines 18-20, 100, lines 19-23, 110, lines 24-25, 158, lines 17-19, 159, lines 22-24,
- 36 Deposition of Kareem J Graves at 48, lines 4-20, 50, lines 21-22, 60, lines 16-23, 69, lines 16, 21, 25,
- 37 Deposition of April Simmons at 18, lines 6-8, 18, 22-24, 31, 32, lines 3-12,

- 38 Deposition of Anita R Kelly at 96, lines 19-24, 47, line 18, 92, lines 7-13, 101, lines 21-22,
- 39 Deposition of Dr Donna A Wilkins at 7, line 25, 8, line 1, 21, 17, lines 2-6, 20-25, 18, lines 16-25, 19, lines 17-23, 70, lines 2-13, 72, lines 2-7, 129, lines 23-25,
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- 44 United States Food and Drug Administration Adverse Event Reports for the AMI monitor,
- 45 [http //children webmd com/tc/sudden-infant-death-syndrome-side-overview](http://children.webmd.com/tc/sudden-infant-death-syndrome-side-overview)
- 46 Dijkstra, Edsger W Go To Statement Considered Harmful, Communications of the ACM, Vol 11, No 3, March 1968, pp 147-148,
- 47 Dijkstra, Edsger W Notes on Structured Programming, [http //userweb cs utexas edu/users/EWD/ewd02xx/EWD249 PDF](http://userweb.cs.utexas.edu/users/EWD/ewd02xx/EWD249.PDF), and
- 48 Pressman, Roger S , Software Engineering, 7th Ed 298-299 (2010)

I certify that this designation contains no matter which is irrelevant to this appeal



J Edward Bell, III
Thomas W Winslow
Law Offices of J Edward Bell LLC
232 King Street
Georgetown, S C 29440

August 20, 2010

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

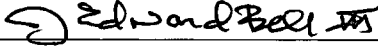
Respondent

PROOF OF SERVICE

I certify that I have served the Amended Appellants' Initial Brief of Appellants on CAS Medical Systems, Inc , by depositing a copy of it in the United States Mail, postage prepaid, on August 20, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889

RECEIVED
AUG 23 2010
SC Court of Appeals

August 20, 2010
Georgetown, SC



J. Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

vs

CAS Medical Systems, Inc

Respondent

PROOF OF SERVICE

I certify that I have served the Amended Designation of Matter for Inclusion in the Record on Appeal on CAS Medical Systems, Inc , by depositing a copy of it in the United States Mail, postage prepaid, on August 20, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889

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SC Court of Appeals



J Edward Bell, III
Thomas William Winslow
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232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

August 20, 2010
Georgetown, SC

August 20 2010

VIA FEDERAL EXPRESS

V Claire Allen Deputy Clerk
SC Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia SC 29211

RECEIVED

AUG 23 2010

SC Court of Appeals

Re Kareem J Graves, et al , v CAS Medical Inc , et al
2010161426

Dear Ms Allen

Enclosed please find for filing are two copies of the Amended Appellants Designation of Matter for Inclusion in the Record on Appeal, and Amended Initial Brief of Appellants, as well as Proof of Service for each

I kindly request that you clock one copy of the Amended Designation of Matter for Inclusion in the Record on Appeal and Amended Initial Brief of Appellants and Proof of Service and return them to me in the enclosed self addressed stamped envelope

With kindest regards I am

Very truly yours



Thomas W Winslow

TWW/scs
Enclosures

cc Clarke W DuBose Esq

**BELL
LEGAL
GROUP**

BELL ELLIOTT PHELAN HARWELL

232 King Street
Georgetown SC 29440
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FAX 843 546 9604

434 C North Guignard Drive
Post Office Box 460
Sumter SC 29151
PH 803 778 6531
FAX 803 773 3693

www.BellLegalGroup.com



The South Carolina Court of Appeals

TANYA A GEE
CLERK

V CLAIRE ALLEN
DEPUTY CLERK

POST OFFICE BOX 11629
COLUMBIA SOUTH CAROLINA 29211
1015 SUMTER STREET
COLUMBIA, SOUTH CAROLINA 29701
TELEPHONE (803) 734 1890
FAX (803) 734 1839
www.sccourts.org

August 11, 2010

J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Re Graves, Kareem v CAS Medical
2010161426

Dear Counsel

We have received your Appellants' Initial Brief and Designation of Matter in the above case. However, the pages of this Brief are not numbered.

Furthermore, the Designation of Matter was filed without a Certificate of Counsel.

The Proof of Service only shows that the Designation of Matter was served. Please provide this Court with an Amended Brief with the pages numbered, Certificate of Counsel for the Designation of Matter and Proof of Service for the Brief within ten (10) days of this letter.

Very truly yours,

A handwritten signature in black ink that reads "V. Claire Allen, Deputy".

CLERK

TAG/lf

cc Clarke W DuBose, Esquire

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM ORANGEBURG COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No 08- CP-38-826

RECEIVED

JUL 27 2010

SC Court of Appeals

Kareem J Graves and Tara Graves, individually and
as duly appointed personal representatives of the Estate
of India Iyanna Graves

Appellants,

vs

CAS Medical Systems Inc

Respondent

Designation of Matter for Inclusion in the Record on Appeal

Pursuant to Rule 209, SCACR, appellant designates the following items for
inclusion in the Record on Appeal

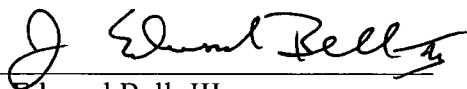
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[http //userweb cs utexas edu/users/EWD/ewd02xx/EWD249 PDF](http://userweb.cs.utexas.edu/users/EWD/ewd02xx/EWD249.PDF), and
48 Pressman, Roger S , Software Engineering, 7th Ed 298-299 (2010)

July 26, 2010


J Edward Bell, III
Thomas William Winslow
Law Offices of J Edward Bell LLC
Post Office Box 2590
232 King Street
Georgetown, S C 29442

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

RECEIVED

JUL 27 2010

SC Court of Appeals

Case No CA-08-CP38-826

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

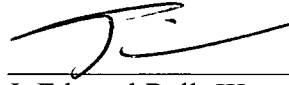
vs

CAS Medical Systems, Inc

Respondent

PROOF OF SERVICE

I certify that I have served the Designation of Matter for Inclusion in the Record on Appeal on CAS Medical Systems, Inc , by depositing a copy of it in the United States Mail, postage prepaid, on July 26, 2010, addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889



J Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

July 26, 2010
Georgetown, SC

July 26 2010

VIA FIRST CLASS US MAIL

The Honorable Jeanette F Barber
Clerk of Court for the S C Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia, SC 29211

Re Kareem J Graves et al , v CAS Medical Inc , et al
Civil Action No 08-CP-38-826

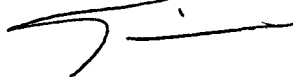
Dear Ms Barber

Enclosed please find for filing are two copies of the Appellants Designation of Matter for Inclusion in the Record on Appeal, and Initial Brief of Appellants, as well as Certificate of Service for each

I kindly request that you clock one copy of the Designation of Matter for Inclusion in the Record on Appeal and Initial Brief of Appellants and Certificate of Service and return them to me in the enclosed self addressed stamped envelope

With kindest regards, I am

Very truly yours



Thomas W Winslow

TWW/rkb
Enclosures

cc Clarke W DuBose, Esq

**BELL
LEGAL
GROUP**

BELL ELLIOTT PHELAN HARWELL

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PH 803 778 6531
FAX 803 773 3693

www.BellLegalGroup.com

RECEIVED

JUL 27 2010

SC Court of Appeals

The South Carolina Court of Appeals

Kareem J Graves and Tara Graves,
individually and as duly appointed
personal representatives of the Estate of
India Iyanna Graves, Appellants

v

CAS Medical Systems, Inc , Respondent

The Honorable James C Williams, Jr
Richland County
Trial Court Case No 2008-CP-38-00826

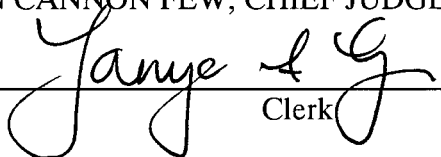
ORDER

Pursuant to a telephone conference with both parties, the Appellants' Initial Brief and Designation of Matter will be due on July 30, 2010 The Respondent's Initial Brief and Designation of Matter will be due on October 4, 2010 The Appellants' Initial Reply Brief will be due thirty days after the Respondent's Brief is filed and served

AND IT IS SO ORDERED

JOHN CANNON FEW, CHIEF JUDGE

BY


Clerk

Columbia, South Carolina

6/17/2010

FILED

6/18/10 

cc J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
Clarke W DuBose, Esquire

May 24, 2010

RECEIVED
MAY 25 2010
SC Court of Appeals

**BELL
LEGAL
GROUP**
BELL ELLIOTT PHELAN

VIA US MAIL

Ms Rosalyn W Frierson, Director
Court Administration
200 John C Calhoun Building
1015 Sumter Street
Columbia, SC 29201

232 King Street
Georgetown SC 29440
PH 843 546 2408
FAX 843 546 9604

Re Kareem J Graves, et al vs CAS Medical Systems, Inc , et al
C/A No 08-CP-38-826

434 C North Guignard Drive
Post Office Box 460
Sumter SC 29151
PH 803 778 6531
FAX 803 773 3693

Dear Ms Frierson

I am writing to advise that I have filed a Notice of Appeal in the above matter, from a Motion for Summary Judgment Hearing I have previously ordered, and received a copy of the transcript from that hearing

www.BellLegalGroup.com

With kindest regards, I am

Yours Truly,



Thomas W Winslow
Attorney at law

TWW/rkb

cc Jeanette F Barber, Clerk of Court for the SC Court of Appeals
Clarke W DuBose, Esq
Lisa Mizell, Orangeburg County Clerk of Court



The South Carolina Court of Appeals

JOHN CANNON FEW
CHIEF JUDGE

JOHN C. CALHOUN BUILDING
POST OFFICE BOX 11629
COLUMBIA, SOUTH CAROLINA 29211
TELEPHONE (803) 734 1890
FAX (803) 734 2373
E MAIL jfew@sccourts.org

June 11, 2010

J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Clarke W DuBose, Esquire
Haynsworth Sinkler Boyd, PA
P O Box 11889
Columbia, SC 29211

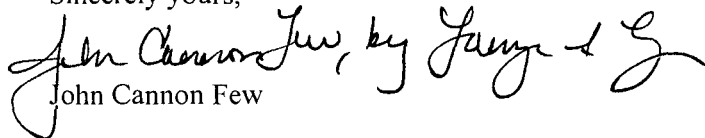
Re Graves, Kareem v CAS Medical
2010161426

Dear Counsel

This letter serves as an Order granting Appellant's request for an extension of time in which to file the Appellant's Initial Brief and Designation of Matter. I have extended the due date until July 18, 2010. I realize that this extension may not give you all the time you need to complete the Appellant's Initial Brief and Designation of Matter. I have set a conference call for 12:00 p.m. on Thursday, June 17, 2010, to discuss an overall approach to setting due dates for all filings in this appeal. **The Appellant is responsible for initiating the conference call by getting all parties on the phone at the allotted time.** The call should last less than ten minutes. The participants in the call will include counsel for all parties and me. In preparation for the call, please consider the other time commitments you have in the near future so we can discuss a suitable timeframe for all parties to complete their briefs. If the time scheduled for the conference call creates a conflict, please contact the Clerk's Office at 734-1890 with all counsel on the phone. We will reschedule the call to suit you.

I look forward to talking to you on Thursday.

Sincerely yours,


John Cannon Few

JCF/dw

FILED

6/11/10

RECEIVED
9/6/15
JUN 09 2010
SC Court of Appeals

June 3, 2010

156
6-18-10
7-18-10

The Honorable Jeanette F Barber
Clerk, South Carolina Court of Appeals
Post Office Box 11629
Columbia, SC 29211

IN RE Kareem J Graves, et al, v CAS Medical Inc, et al
Civil Action No 08-CP-38-826

Dear Ms Barber

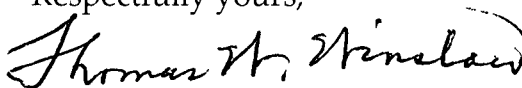
Please accept this letter as our request for an extension of thirty days within which to file the Appellant's Initial Brief and Designation of Matter to be Included in the Record on Appeal According to our calculations, the initial brief is due on June 18, 2010, and, if granted, this request would move the due date to July 18, 2010

Our check in the sum of \$25 00 is enclosed

By copy of this letter, opposing counsel is being advised of this request

Thanking you for your courtesy and with kind regards, I am

Respectfully yours,



Thomas W Winslow

TWW hdo

Enclosures

cc Mr Clarke W Dubose
Haynsworth Sinkler Boyd, P A
Attorneys at Law
Post Office Box 11889
Columbia, South Carolina 29211-1889

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LAW OFFICES OF
J EDWARD BELL III LLC



The South Carolina Court of Appeals

TANYA A GEE
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V CLAIRE ALLEN
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1015 SUMTER STREET
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June 1, 2010

J Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Re Graves, Kareem v CAS Medical
Case Tracking # 2010161426

Dear Counsel

We have received your Notice of Appeal in the case noted above. This case will be docketed in the Court of Appeals and all communications concerning this case, including motions and petitions, initial and final briefs, and the Record on Appeal, should be directed to and filed in this Court. For all filings, please note the requirements of Rule 267(a) of the South Carolina Appellate Court Rules, and be further advised that Court of Appeals policy requires the firm name of any counsel shown must be included in his or her address.

We suggest that large parcels such as copies of final briefs and the Record On Appeal be sent directly to the Court via the street address 1015 Sumter Street, Columbia, S C 29201. Thank you for your attention to this. Failure to file in the proper court may result in the dismissal of your appeal.

PLEASE BE ADVISED that, pursuant to Rule 207 of the South Carolina Appellate Court Rules, the transcript must be ordered within ten (10) days of the proof of service of the Notice of Appeal and you must provide this Court, opposing counsel, and the Office of Court Administration with all correspondence regarding the transcript. It is also Appellant's responsibility to make satisfactory arrangements (including agreement regarding payment for the transcript) with the Court Reporter for furnishing the transcript. You are reminded of the

notification requirements of Rule 207(a)(5), SCACR, also, please advise the Court in writing upon receipt of the transcript

NOTE If you believe this case has been improperly filed in the Court of Appeals, by reason of the limitations set forth in S C Code Ann Section 14-8-200(b)(1998), as amended June 1, 1999, notify the Clerk's office of the Court of Appeals immediately. The cited Code Section prohibits the Court of Appeals from hearing appeals in seven classes of cases

- 1) any final judgment from the circuit court which includes a sentence of death,
- 2) any final judgment from the circuit court setting public utility rates pursuant to Title 58,
- 3) any final judgment involving a challenge on state or federal grounds to the constitutionality of a state law or county or municipal ordinance where the principal issue is the constitutionality of the law or ordinance,
- 4) any final judgment from the circuit court involving the authorization, issuance, or proposed issuance of general obligation debt, revenue, institutional, industrial, or hospital bonds of the state, its agencies, political subdivisions, public service districts, counties, and municipalities or any other indebtedness now or hereafter authorized by Article X of the Constitution of this state,
- 5) any final judgment from the circuit court pertaining to elections and election procedure,
- 6) any order limiting an investigation by a State Grand Jury under S C Code Ann Section 14-7-1630,
- 7) any order of the family court relating to an abortion by a minor under S C Code Ann Section 44-41-33

Very truly yours,

V. Claude Allen, Deputy

Tanya A. Gee
CLERK

TAG/mw

cc Clarke W. DuBose, Esquire



The South Carolina Court of Appeals

TANYA A. GEE
CLERK

V. CLAIRE ALLEN
DEPUTY CLERK

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June 1, 2010

J. Edward Bell, III, Esquire
Thomas William Winslow, Esquire
232 King St
Georgetown, SC 29442

Re Graves, Kareem v. CAS Medical
Case Tracking # 2010161426

Dear Counsel

This office has received your Notice of Appeal in the above matter. It has been assigned the Case Tracking Number that appears above. Please use this number on all future correspondence relating to this matter.

I do wish to call the attention of the parties to the attached order relating to the inclusion of personal data identifiers and other sensitive information in documents filed with the Supreme Court of South Carolina and the South Carolina Court of Appeals. Please note that the responsibility for insuring that information is redacted or sealed as required by this order rests with counsel and the parties. This office will not review filings for redaction or to determine if materials should be sealed.

Very truly yours,

V. Claire Allen, Deputy
CLERK

TAG/mw

cc Clarke W. DuBose, Esquire

PM 05/21/2010
POS 05/19/2010

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

RECEIVED

MAY 21 2010

Case No CA-08-CP38-826

SC Court of Appeals

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

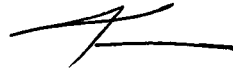
vs

CAS Medical Systems, Inc

Respondent

NOTICE OF APPEAL

The Appellants Kareem J Graves and Tara Graves, individually and as duly appointed personal representatives of the Estate of India Iyanna Graves, appeal the Order of the Honorable James C Williams, Jr , dated April 8, 2010, and entered April 8, 2010, and the Order Denying Plaintiff's Motion Under Rule 59 SCRPC dated April 23, 2010, and entered April 26, 2010 Counsel for appellants received notice of the entry of the last mentioned order on April 28, 2010 Copies of said orders are attached hereto and made a part of this Notice of Appeal



J Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
Georgetown, SC 29442
Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

May 20, 2010

OTHER COUNSEL OF RECORD

Clarke W Dubose, Esquire
Haynsworth Sinkler Boyd, P A
Post Office Box 11889
Columbia, South Carolina 29211-1889
Attorney for the Respondent

THE STATE OF SOUTH CAROLINA

In the Court of Appeals

APPEAL FROM RICHLAND COUNTY
Court of Common Pleas
James C Williams, Jr , Circuit Court Judge

Case No CA-08-CP38-826

RECEIVED

MAY 21 2010

SC Court of Appeals

Kareem J Graves and Tara Graves,
individually and as duly appointed personal
representatives of the Estate of India Iyanna Graves

Appellants,

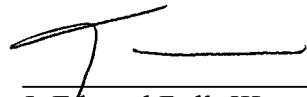
vs

CAS Medical Systems, Inc

Respondent

PROOF OF SERVICE

I certify that I have served the Notice of Appeal on CAS Medical Systems, Inc ,
by depositing a copy of it in the United States Mail, postage prepaid, on May 19, 2010,
addressed to their attorney of record Clarke W Dubose, Esquire, Haynsworth Sinkler
Boyd, P A , Post Office Box 11889, Columbia, South Carolina 29211-1889



J. Edward Bell, III
Thomas William Winslow
The Bell Legal Group, LLC
232 King Street
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Tel 843-546-2408
Fax 843-546-9604
Attorney for the Appellants

May 20, 2010
Georgetown, SC

May 20 2010

B BELL
LEGAL
GROUP
BELL ELLIOTT PHELAN

VIA FEDERAL EXPRESS

The Honorable Jeanette F Barber
Clerk of Court for the S C Court of Appeals
John C Calhoun Bldg ,
1015 Sumter Street
Columbia, SC 29211

RECEIVED

MAY 21 2010

SC Court of Appeals

232 King Street
Georgetown SC 29440
PH 843 546 2408
FAX 843 546 9604

Re Kareem J Graves, et al v CAS Medical Inc , et al
Civil Action No 08-CP-38-826

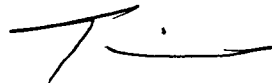
Dear Ms Barber

Enclosed please find for filing are two copies of the Notice of Appeal and Certificate of Service for the above matter, and this firm's check in the amount of \$100 00 to cover the costs of filing this Notice

I kindly request that you clock one copy of the Notice of Appeal and Certificate of Service and return them to me in the enclosed self addressed stamped envelope

With kindest regards I am

Very truly yours,



Thomas W Winslow

TWW/rkb
Enclosures

cc Clarke W DuBose, Esq
Lisa Mizell, Orangeburg County Clerk of Court

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Ron Bertka
Bell Legal Group
232 King Street

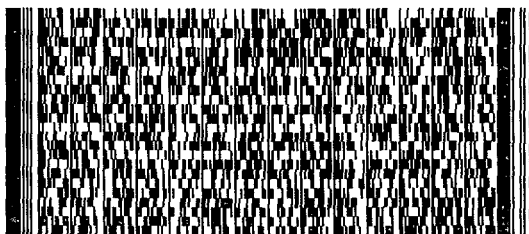
Georgetown SC 29440



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Jeanette F Barber, Clerk
S C Court of Appeals
1015 SUMTER ST
JOHN C CALHOUN BLDG
COLUMBIA, SC 29201



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Invoice #
PO #
Dept #

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STATE OF SOUTH CAROLINA	)	IN THE COURT OF COMMON PLEAS
	)	
COUNTY OF ORANGEBURG	)	CIVIL ACTION NO 2008 CP-38 826
KAREEM J GRAVES and TARA GRAVES,	)	
individually and as duly appointed personal	)	
representatives of the ESTATE OF INDIA	)	
IYANNA GRAVES,	)	
	)	ORDER DENYING PLAINTIFF'S
	)	MOTION UNDER RULE 59, SCRPC
Plaintiffs,	)	
v	)	
	)	
CAS MEDICAL SYSTEMS, INC ,	)	
	)	
Defendant	)	

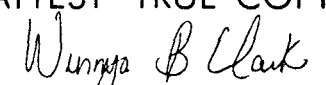
By motion pursuant to Rule 59, SCRPC, plaintiffs have moved the court to reverse its prior rulings. In so doing, plaintiffs also have asked the court to specifically rule on several matters: (1) proof of a product liability claim by circumstantial evidence, (2) the application of the Restatement (Third) of Torts to this matter, (3) the exclusion of the opinion testimony of plaintiffs' medical and causation expert, Dr. Donna Wilkins, (4) the striking of the affidavits of plaintiffs' computer code experts, Walter Daugherty and William Lively, and (5) the exclusion under Rule 702, SCRE of the affidavit opinions of Daugherty and Lively.

For the reasons stated below and in the court's prior order, the motion is denied.

The court has previously considered the arguments regarding Daugherty, Lively, and Wilkins following extensive briefing and oral argument and has ruled accordingly.

Plaintiffs have not shown that a product defect can be proved by circumstantial evidence in South Carolina. The cases plaintiffs cite in their motion for this proposition are not product liability cases. The law in South Carolina is that a plaintiff must prove the defect that caused the injury. *Sunvillas Home Owners Assn v Square D Company*, 301 S.C. 330, 391 S.E.2d 868 (Ct. App. 1990) (negligence case). Circumstantial evidence cannot leave the question of liability to



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 CLERK OF COURT
 ORANGEBURG COUNTY, SC

mere speculation or conjecture. See e.g., *Leek v New South Express Lines*, 192 S C 527, 7 S E 2d 459 (1940). Allowing these plaintiffs to proceed only on untested circumstantial evidence would leave the question of defect to mere surmise, conjecture, or speculation. *Jackson v Bermuda Sands Inc.*, 383 S C 11, 677 S E 2d 612 (Ct App 2009) (upholding exclusion of expert's untested theory of product failure and grant of summary judgment).

Plaintiffs' approach also conflicts with our Supreme Court's recent rulings on expert testimony including *Watson v Ford Motor Co*, Op No 26786 (March 15 2010) where the court explained that expert testimony is required 'where a factual issue must be resolved on scientific, technical, or other specialized knowledge. The factual issues presented in this case concerning the writing, testing, and operation of computer software are clearly beyond the experience of the typical juror, as is the current state of medical knowledge regarding Sudden Infant Death Syndrome. Plaintiffs have recognized the need for expert testimony in the case. That need is inconsistent with their argument that expert testimony is not required.

The court also notes that several of the circumstances plaintiffs cite in support of their circumstantial case are not admissible. See *Hall v Fedor*, 349 S C 169, 175, 561 S E 2d 654, 657 (Ct App 2002) (holding plaintiff must present evidence that would be admissible at trial to defeat a defendant's properly made and supported motion for summary judgment). The testimony of the EMT Anita Kelly is not as plaintiffs represent. Ms. Kelly testified that she could not remember if she looked at the monitor and could not say what parts of her report were her observations and what parts were recounted to her.

The possibility that the software could contain an error does not mean that it did in fact contain an error or that an error resulted in any failure in this monitor. Thus, the evidence is

irrelevant prejudicial and lacking in probative value and is inadmissible under Rules 401 403
SCRE

Dr Daugherity's method of eliminating other possibilities for the parents complaint about the monitor is inadmissible as previously discussed as was his affidavit opinion that the monitor log could incorrectly indicate that the alarm sounded when it did not With or without these four points plaintiffs' argument is essentially one of *res ipsa loquitor* It is well established that *res ipsa loquitor* is not the law in this state

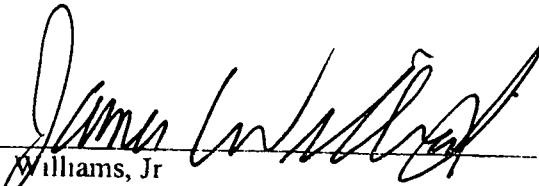
Plaintiffs also argue, apparently for the first time, that a lesser standard for expert testimony applies if the expert expresses a general opinion rather than identifying a specific defect There are many flaws in this argument For example, a party cannot raise new argument in a Rule 59 motion that could have been raised before judgment *Anonymous v State Board of Medical Examiners* 323 S C 260,279 473 S E 2d 870 880 (Ct App 1996)) rev d on other grounds 329 S C 371 496 S E 2d 17 (1998) Moreover plaintiffs offer no authority for why a less specific product defect theory or expert opinion requires lesser proof Additionally this argument is contrary to the requirements of Rule 702 SCRE and cases interpreting this rule See e g *Watson v Ford Motor Co* , Op No 26786 (March 15 2010), *Jackson v Bermuda Sands Inc* 383 S C 11 677 S E 2d 612 (Ct App 2009)

With regard to the court s implicit rejection of the appl cability of the Restatement (Third) of Torts the court supplements its prior order by noting that plaintiffs have failed to offer any support for their claim that the Restatement (Third) is the law in this state The Restatement (Second) was statutorily adopted in South Carolina See S C Code Ann § §15 73 10, see also *Campbell v Galu Indus* , 2006 U S Dist LEXIS 26606 (D S C Apr 20, 2006) Our legislature

has not seen fit to adopt the third Restatement nor is there any appellate court opinion holding that the Restatement (Third) is the law in South Carolina

Accordingly for the reasons set forth above, as well as those in my Order filed April 8 2010 plaintiffs' motion is denied

AND IT IS SO ORDERED


James C. Williams, Jr.
Circuit Court Judge

April 23, 2010



STATE OF SOUTH CAROLINA	)	IN THE COURT OF COMMON PLEAS
	)	
COUNTY OF ORANGEBURG	)	CIVIL ACTION NO 2008-CP-38-826
KAREEM J GRAVES and TARA GRAVES,	)	
individually and as duly appointed personal	)	
representatives of the ESTATE OF INDIA	)	
IYANNA GRAVES,	)	
	)	
Plaintiffs,	)	
v	)	
CAS MEDICAL SYSTEMS, INC	)	
	)	
Defendant	)	

2010 APR -8 P 3 26
 ORDER
 CLERK OF COURT
 ORANGEBURG COUNTY, SC

This matter is before the Court on defendant's motions to strike expert affidavits, to exclude expert opinions under Rule 702, SCRE, and for summary judgment pursuant to Rule 56, SCRCF. Plaintiffs were represented by attorneys Ed Bell and Thomas Winslow of the Bell Legal Group of Georgetown, South Carolina, and Tommy Hastings of Houston, Texas. Defendant CAS Medical Systems, Inc ("CAS") was represented by Clarke DuBose and Todd Smyth of Haynsworth Sinkler Boyd, P A's Columbia and Charleston offices.

The Court heard the motions on February 4, 2010. All of the issues were extensively briefed by both sides, including additional briefing at plaintiffs' request after the February 4, 2010 hearing. The Court was also provided with and considered extensive portions of the record in the case, including complete deposition transcripts of several witnesses, as well as affidavits from both sides.

For the reasons stated below, the motions are granted.

BACKGROUND

I Nature of the Action

This is a product liability action alleging causes of action for strict liability, negligence, breach of warranties, and wrongful death. Plaintiffs are the parents and legal representatives of

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Wynne B Clark
 CLERK OF COURT
 ORANGEBURG COUNTY, SC

[Signature]

the Estate of India Graves Plaintiffs allege that on the morning of April 11, 2004, the AMI Plus breathing/heart rate monitor being used by India failed to alarm that her heart rate and breathing rate were decreasing, and she died as a result An autopsy found her death to be the result of Sudden Infant Death Syndrome ("SIDS")

II Plaintiffs' Experts

Plaintiffs' software experts are Dr Walter Daugherty ("Daugherty"), a computer science instructor, and Dr William Lively ("Lively"), a computer science professor Plaintiffs' causation expert, Dr Donna Wilkins ("Dr Wilkins"), is a neonatologist Plaintiffs also offered as an expert Frank Painter ("Painter"), who is a biomedical engineer

III CAS's Motions for Summary Judgment and to Exclude Expert Testimony Pursuant to Rule 702, SCRE, and to Strike Affidavits

This case was filed on April 7, 2006 CAS deposed plaintiffs' four experts during the spring and summer of 2008 CAS filed its summary judgment motion on March 6, 2009 The essence of the motion was that plaintiffs' experts had failed to identify the alleged defect in the monitor that caused the harm The same day, plaintiffs sent the Court a letter-memorandum opposing summary judgment On March 13, 2009, plaintiffs filed an affidavit by Lively

At a hearing on March 17, 2009, the Court declined to rule on CAS's summary judgment motion and ordered plaintiffs to respond fully to CAS's outstanding discovery, including further discovery regarding plaintiffs' experts' opinions as to the defect that caused the alleged failure of the monitor Plaintiffs served additional discovery responses, and on April 17, 2009, filed an affidavit by Daugherty

On April 28, 2009, CAS moved for an order striking the Daugherty and Lively affidavits under *Cothran v Brown*, 357 S C 210, 592 S E 2d 629 (2004), and moved under Rule 702, SCRE, to exclude the deposition opinions of all of plaintiffs' experts CAS amended its motion

2 p2 JMD

to exclude expert testimony on May 22, 2009, and added an affidavit by a computer engineer and textbook author, Dr Roger S Pressman ("Pressman") Over the summer of 2009, both parties briefed these issues as well as the issues raised by CAS's summary judgment motion On September 9, 2009, CAS filed a supplemental affidavit of Pressman

Plaintiffs filed a second set of memoranda opposing CAS's motions to exclude their experts and for summary judgment in October 2009, to which CAS responded Plaintiff then filed an additional affidavit by Daugherity on February 2, 2010 CAS filed an additional affidavit by Pressman on February 4, 2010 At the February 4 hearing, plaintiffs were granted until the end of the month to further brief the issues Plaintiffs filed an additional memorandum and new affidavits by Lively and Daugherity, among other things On March 11, 2010, CAS responded to plaintiffs' memorandum and on March 12 provided the Court with an affidavit by CAS's SIDS expert, Dr Carl Hunt ("Hunt")

Given the lengthy period between the filing of the motions and the ruling in this case and the extensive briefing and Court involvement, plaintiffs had every opportunity to come forward with evidence establishing all elements of their claim as required by Rule 56(e), SCRCF Despite numerous opportunities, plaintiffs failed to do so

FINDINGS

I The Lively and Daugherity Affidavits are Excluded Under *Cothran v Brown*

The South Carolina Supreme Court has established considerations for whether an affidavit should be excluded as a sham, found in the case of *Cothran v Brown*, 357 S C 210, 592 S E 2d 629 (2004) Those considerations are (1) whether explanation is offered for the contradictory statements, (2) the importance to the litigation of the facts about which there is contradiction, (3) whether the non-movant had access to this fact prior to the previous sworn

3 

testimony, (4) the frequency and degree of variation between statements in the previous sworn testimony and statements made in the later affidavit, and (5) whether the previous sworn testimony indicates the witness was confused at the time *Cotthran* 357 S C at 218, 592 S E 2d at 633

In their May 2008 depositions, Daugherty and Lively both testified repeatedly that the problem with the monitor software that caused the alleged failure was a portion of the code that had been miswritten. They further testified that, to find the problem, they would have to find this portion of the code, but that they had not found it. They further testified that they had not tested the code to look for the miswritten line or lines. They also testified that the code was poorly structured, which made it harder to test and maintain, but testified that neither the alleged poor code structure nor the use of unconditional branching instructions in the code, often referred to by the shorthand “goto” statements, could cause the alleged malfunction – the failure had to come from a writing error within the code.

In their depositions, Daugherty and Lively also were questioned closely about the logging function of the monitor. Daugherty testified that he could not say more likely than not that the log showing the alarm sounded during India’s decline was unreliable.

In their affidavits, and in particular Daugherty in his affidavits, Daugherty and Lively changed their opinion from the error being not the structure of the code but a writing error within the code, to claim that the code structure itself caused the alleged failure. They had refuted this idea in their deposition testimony but claimed in their affidavits that the repeated use of “goto” statements were the direct cause of the alleged malfunction. Regarding the logs that showed, among other things, that the alarms sounded every time it should have, Daugherty wrote in his affidavit that it was certain that the logs were unreliable based on the code structure.

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These affidavits must be excluded under *Cothran v Brown*. The experts offer no explanation for their directly contradictory statements, the opinions are filed to avoid summary judgment and are critically important to plaintiffs' case, and there is no indication that the information was not available to the experts earlier or that they were confused. This Court excludes the affidavits from consideration. Despite this, the Court also finds, as explained below, that summary judgment is appropriate even if the affidavits were to be considered.

II Plaintiffs' Experts' Opinions are Excluded under Rule 702, SCRE

Under South Carolina Rule of Evidence 702, scientific, technical, or other specialized knowledge is admissible "if it will assist the trier of fact to understand the evidence or determine a fact in issue." *Wilson v Rivers*, 357 S.C. 447, 593 S.E.2d 603 (2004). Admissibility is limited, however, to situations where the witness is qualified and the underlying testimony is reliable. The threshold requirement of reliability applies equally to scientific and non-scientific evidence and the trial court's gate-keeping role extends to both types of expert opinion. *State v White*, 382 S.C. 265, 676 S.E.2d 684 (2009). The burden of proving admissibility is on the party offering the expert opinion. *State v White*.

When considering scientific evidence, the trial judge is charged with determining reliability by considering the following factors:

- (a) publications and peer review of the technique used by the expert,
- (b) prior application of the expert's method to the type of evidence involved in the case,
- (c) quality control procedures used by the expert to ensure reliability, and
- (d) consistency of the expert's method with recognized scientific laws and procedures

5 P5 JMB

State v Council, 335 S C 1, 515 S E 2d 508 (1999) The Court in *State v White* recognized that these factors may not be a good fit when analyzing the reliability of nonscientific expert opinions and that a formulaic approach was not practical

In accordance with the scientific method, testing is typically required to show the validity of an expert's hypothesis *Jackson v Bermuda Sands Inc*, 383 S C 11, 677 S E 2d 612 (Ct App 2009) Untested opinions risk being no more than "speculative, theoretical, and hypothetical" and "guesses and speculation" *Id*

A Experts Daugherty and Lively

Daugherty's and Lively's opinions fit within the scientific category for purposes of Rule 702 analysis, but the result would be the same if one considered their opinions technical rather than scientific Their deposition opinions were that there is a defect within the code that caused a malfunction but that they had not found the defect They testified that the code was needlessly complex to the point it could not be tested These and their other relevant opinions are excluded under Rule 702, SCRE

These experts' methodology does not meet the tests of reliability set forth in *State v Council*, 335 S C 1, 515 S E 2d 508 (1999) Plaintiffs' experts' technique began with the assumption that the monitor malfunctioned in the Graves home They then looked at the code, and operated the monitor However, they failed to make the monitor malfunction In addition, they accepted as valid and relevant a group of unproven and largely unrelated complaints about this product Lastly, Daugherty drew a draft diagram of a portion of the code and Lively looked over the extensive software development documentation

Daugherty and Lively did not test the software The experts failed to show authoritative support for their claim that the error could not be located through reasonable testing Instead,

6 p6 [Signature]

they relied in part on the plaintiffs for proof that the monitor failed in this case, thus starting with the assumption of failure rather than proving that failure

Plaintiffs offered no evidence that this technique of diagnosing software problems, as opposed to testing, is accepted in the fields of computer engineering or computer science. It has not been peer reviewed or written up in any publication. The experts have not applied this method outside of litigation.

Quality control was absent, among other things, for the above reasons and a failure of the experts to fully understand the monitor's operation, to review the entire record in the case, or to determine authority that validated their experts' method of arriving at a conclusion as to software failure based on anecdotal evidence rather than testing. Because these expert opinions have not been tested, they remain only unproven hypotheses. *Jackson v Bermuda Sands, Inc*, 383 S C 11, 677 S E 2d 612 (Ct App 2009)

These experts also relied impermissibly on a collection of supposed software failures. The validity or reliability of the complaints was not shown. The substantial similarity of the complaints to the alleged failure in this case was never shown. *Watson v Ford Motor Co*, Op No 26786 (March 15, 2010), *Jamison v Morris*, 385 S C 215, 684 S E 2d 168 (2009). Moreover, the fact that these witnesses improperly changed their testimony and, at least as to Daugherty, began advocating for the plaintiffs in a later affidavit demonstrating a lack of objectivity, further support their exclusion.

These opinions are also excluded under Rule 403, SCRE, as any probative value they might have is substantially outweighed by the danger of unfair prejudice, confusion of the jury, or misleading the jury.

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P. J. [Signature]

Although the Court is excluding the subsequent affidavits of Daugherity and Lively under *Cothran v Brown*, the Court notes that their new affidavit opinions would fail the Rule 702 tests of reliability for the same reasons as these experts' deposition opinions and thus would be excluded even if they survived the *Cothran v Brown* scrutiny. Moreover, neither version of the opinions specifies the defect that caused the alleged failure. Thus, summary judgment would be appropriate even if both or either of the experts' original or revised opinions were admitted into evidence because they are not sufficient for plaintiffs to carry their burden of proof.

B Exclusion of Dr. Wilkins' opinions

Dr. Wilkins' testimony, scientific in nature, is also excluded under Rule 702, SCRE based both on lack of qualification and lack of reliability. Dr. Wilkins admitted at deposition that she was not an expert on SIDS and further testified that prior to forming her opinion she had done no SIDS literature research relative to her opinion and had consulted no SIDS experts or anyone else about the issue before her. Dr. Wilkins took no steps to determine if her opinion has any scientific support. Dr. Wilkins is not qualified to give an expert opinion on SIDS survivability because she has not "acquired the requisite knowledge and skill to qualify as an expert in the particular subject matter." *Watson v Ford Motor Co*, Op. No. 26786, (March 15, 2010). Moreover, Dr. Wilkins' opinions on survivability of SIDS do not meet the *State v Council* factors for reliability.

C Expert Painter's opinions are also excluded

Painter's testimony also fails a reliability inquiry. Painter bases his opinion that India Graves' monitor failed based only on her parents' say-so. Painter has not located the alleged defect nor has he established what combination of inputs can trigger the alleged defect. Painter has not critically examined the monitor's code and has performed no testing of it. Like

8 

Daugherty and Lively, Painter has done no more than construct an unproven hypothesis. To the extent he relies on unproven complaints of other monitor failures, there has been no showing as to the substantial similarity or the reliability of those complaints. *Watson v Ford Motor Co*, *Jamison v Morris*, 385 S C 215, 684 S E 2d 168 (2009). Plaintiffs have not shown that Painter's methodology of determining a code defect is acceptable within his field. The Court thus also excludes Painter's opinion.

III The Court Grants CAS's Motion for Summary Judgment

A Summary judgment standard

"[S]ummary judgment is proper when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law." *Nelson v Charleston County Parks & Recreation Comm*, 362 S C 1, 4-5, 605 S E 2d 744, 746 (Ct App 2004), *see also* Rule 56(c), SCRPC. All evidence and inferences reasonably drawn from the evidence must be viewed in the light most favorable to the nonmoving party in determining whether any triable issues of fact exist. *Faile v South Carolina Dep t of Juvenile Justice*, 350 S C 315, 324, 566 S E 2d 536, 539 (2002). If a triable issue exists, that issue must go to the jury. *Young v South Carolina Dep t of Corr*, 333 S C 714, 718, 511 S E 2d 413, 415 (Ct App 1999).

B Proof in a products liability case

Regardless of the theory of recovery, a plaintiff in a product liability case must establish that (1) he was injured by product, (2) the product, at the time of the accident, was in the same condition as when it left the hands of the defendant, and (3) the injury occurred because the product was in a defective condition unreasonably dangerous to the user. *See Madden v Cox* 284 S C 574, 328 S E 2d 108, 112 (Ct App 1985). A plaintiff alleging a defective product must identify the specific defect. *Cf Sunvillas Home Owners Assn v Square D Company*, 301 S C

330, 391 S E 2d 868 (Ct App 1990) (negligence case) *see also McCrary v Sears Roebuck & Co* , 1997 WL 675572 (D S C 1997) The plaintiff must establish that the alleged defect in the product was the proximate cause of the injury sustained *Bray v Marathon Corp* , 347 S C 189, 553 S E 2d 477 (Ct App 2001), affirmed in part, reversed in part, 356 S C 111, 588 S E 2d 93 (2003), *Livingston v Noland Corp* , 293 S C 521, 362 S E 2d 16 (1987), *Young v Tide Craft Inc* , 270 S C 453, 242 S E 2d 671 (1978)

C Plaintiffs have not adduced evidence showing they can meet their burden of proof

“Expert testimony is required where a factual issue must be resolved with scientific, technical or other specialized knowledge ” *Watson v Ford Motor Co* , Op No 26786 (March 15, 2010) In this case, whether the monitor contains a computer code defect and what that defect is constitute matter for expert proof through testing, not for speculation by a lay jury A lay jury likewise is not qualified to determine the state of medical research with regard to the likelihood that a SIDS infant can be revived Plaintiffs have not argued to the contrary

Without testimony from their computer and biomedical experts, plaintiffs are unable to carry their burden of proof that a defect in the monitor caused the injury With the exclusion of Dr Wilkins, plaintiffs are unable to carry their burden of proof on causation that India more likely than not would have survived her SIDS event if the alarm sounded, assuming it did not Because plaintiffs cannot carry their burden of proof on these two essential elements of their case, summary judgment in favor of CAS is appropriate

D Plaintiffs have not proven a viable alternative design

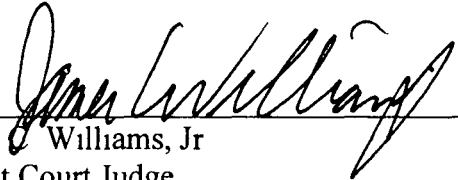
Plaintiffs’ proposed alternative design is that the allegedly unstructured code currently in the AMI Plus monitor should be replaced with structured code, which they contend would operate properly or be more easily tested They have not developed or tested such software,

leaving their alternative design a conceptual design theory, which is insufficient *Bragg v Hi-Ranger Inc* , 319 S C 531, 546, 462 S E 2d 321, 330 (Ct App 1995) Moreover, plaintiffs' proposal does not go beyond suggesting CAS should use working software

CONCLUSION

For the reasons set forth above, plaintiffs' experts' opinions are excluded under Rule 702, SCRE and summary judgment is granted in favor of defendant Also, plaintiffs' experts' affidavits filed after the filing of CAS's motion for summary judgment are stricken

AND IT IS SO ORDERED



James C. Williams, Jr
Circuit Court Judge

April 8, 2010

(1334446v4)

COLUMBIA

CLARLESTON

FLORENCE

GR ENVILLE

Haynsworth
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November 9, 2010

The Honorable Tanya Gee
Clerk of Court
South Carolina Court of Appeals
1015 Sumter Street
Columbia, SC 29201

Re *Graves v CAS Medical Systems Inc*
Civil Action No 08-CP-38-826

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RECEIVED

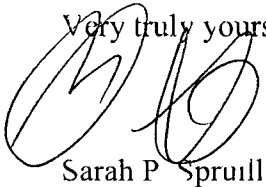
NOV 10 2010

SC Court of Appeals

Dear Ms Gee

Respondent CAS Medical Systems, Inc ("CAS") submits this letter in accordance with Rule 208(b)(7) SCACR. Since the initial briefs in this case were filed, this South Carolina Supreme Court has issued *Harris Teeter Inc v Moore & Van Allen PLLC* Op No 26887 (S C Sup Ct filed November 1, 2010) addressing the issue of sham affidavits. This case provides supplemental authority for CAS's Issue III, relating to the conflicting affidavits submitted by Plaintiffs' experts. A copy of the *Harris Teeter* opinion is attached for the Court's convenience.

Very truly yours,



Sarah P. Spruill

SPS:jcm

Enclosure

**THE STATE OF SOUTH CAROLINA
In The Supreme Court**

Harris Teeter, Inc , Appellant,

v

Moore & Van Allen, PLLC and W Howell
Morrison, Respondents

RECEIVED

NOV 10 2010

SC Court of Appeals

Appeal From Charleston County
George C James, Jr , Circuit Court Judge

Opinion No 26887
Heard February 18, 2010 – Filed November 1, 2010

AFFIRMED

A Camden Lewis Mary G Lewis, and Ariail E
King all of Lewis & Babcock, of Columbia, for
Appellant

G Trenholm Walker, Clayton B McCullough and
Daniel S McQueeney, Jr , all of Pratt-Thomas &
Walker, of Charleston, for Respondents

JUSTICE KITTREDGE This is a legal malpractice action in which the trial court granted summary judgment to the law firm of Moore & Van Allen, PLLC and attorney W Howell Morrison (Respondents) We certified the appeal of Harris Teeter, Inc pursuant to Rule 204 (b), SCACR We affirm

I

STANDARD OF REVIEW

Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law See Rule 56(c), SCRCP, *see also Hancock v Mid-South Mgmt Co , Inc* , 381 S C 326, 330, 673 S E 2d 801, 803 (2009) ("[I]n cases applying the preponderance of the evidence burden of proof, the non-moving party is only required to submit a mere scintilla of evidence in order to withstand a motion for summary

judgment "), *David v McLeod Reg'l Med Ctr* , 367 S C 242, 247, 626 S E 2d 1, 3 (2006) ("In determining whether any triable issues of fact exist, the court must view the evidence and all reasonable inferences that may be drawn from the evidence in the light most favorable to the non-moving party ") Having carefully reviewed the record under the appropriate standard, we find Respondents are entitled to judgment as a matter of law

II

FACTUAL/PROCEDURAL BACKGROUND

This claim arises from Respondents' representation of Harris Teeter in an arbitration proceeding concerning a lease dispute

A

In 1979, Harris Teeter leased property to operate a supermarket on East Bay Street in Charleston, South Carolina. The lease term was twenty-five years with five renewal options of five years each. The lease required Harris Teeter to pay base rent to the property owner in the amount of \$14,074 a month, or \$176,448 annually, as well as percentage rent if Harris Teeter's net sales exceeded \$16,400,000 annually. The 1979 lease was considered an under-market lease and thus favorable to Harris Teeter.

In 2001, East Bay Venture, LLC (EBV) purchased the property and became Harris Teeter's landlord. A dispute over lease terms promptly surfaced involving the following lease provisions, which required Harris Teeter to (1) insure the property for its "insurable value" with responsible insurance companies authorized to do business in South Carolina and (2) pay "all costs and expenses of every kind and nature whatsoever relating to the demised premises except rent interruption insurance, which shall be carried by the Landlord."

After acquiring the property, Marcus Durlach, III, acting on behalf of EBV, met with officers from Harris Teeter regarding these lease provisions—specifically Harris Teeter's responsibility, if any, for certain insurance and environmental costs associated with EBV's purchase of the property. Following the meeting, Harris Teeter contacted an attorney in North Carolina it used for lease matters.

Over the next year, Durlach attempted to contact Harris Teeter numerous times on behalf of EBV seeking reimbursement for the expenses, but Durlach's communications were largely ignored. Durlach eventually wrote Harris Teeter on November 11, 2002, formally demanding reimbursement for the costs. Harris Teeter forwarded the letter to its North Carolina attorney, but Harris Teeter did not respond to EBV's demand.

On December 3, 2002, Durlach sent Harris Teeter a letter declaring it in default under the lease [1]. In response to this letter, Harris Teeter immediately retained a South Carolina law firm. This law firm advised Harris Teeter that it was not responsible for the disputed expenses and sent a letter to that effect to Durlach on December 30, 2002. During the cure period, however, no effort was made to cure any alleged default by, for example, paying the disputed expenses under protest. Durlach responded by terminating the lease on January 9, 2003 [2].

B

Following termination of the lease, Harris Teeter discharged that law firm and retained its third law firm, Respondents.

Respondents undertook efforts to rescind the lease termination, however, EBV's stance in negotiations was firm. EBV was unwilling to rescind the lease termination without concessions, most notably a substantial increase in base rent. Harris Teeter maintained the position throughout that EBV's posture was merely a pretext for EBV's desire to renegotiate the lease terms with Harris Teeter—for an increase in rent to reflect what EBV believed to be the true market value of the lease. Harris Teeter rejected EBV's April 28, 2003, offer of an increase to \$300,000 in annual base rent.

On May 13, 2003, Harris Teeter, through Respondents, paid EBV the disputed expenses under protest "reserving all rights for reimbursement as determined in the arbitration."

proceeding under the Lease " Respondents continued negotiations with EBV, but EBV refused to rescind the lease termination absent a substantial increase in the base rent On June 20, 2003, EBV made its final offer a new fifteen-year lease, with an annual base rent of \$475,000 for the first five years, \$500,000 annually for the second five-year period, and \$625,000 annually for the final five-year period Keith Rudemiller, Harris Teeter's vice president for real estate, forwarded EBV's offer to Harris Teeter president Fred Morganthall In a handwritten note accompanying the EBV offer, Rudemiller declared the offer "RIDICULOUS " Harris Teeter rejected the offer

C

The dispute proceeded to arbitration Respondent Howell Morrison of Moore & Van Allen represented Harris Teeter at the arbitration The parties agreed to select Lanneau Lambert as the arbitrator There were two issues before the arbitrator The first issue was whether Harris Teeter defaulted under the lease by failing to reimburse EBV for the costs associated in complying with the terms of the voluntary cleanup contract (VCC)[3] and obtaining flood insurance to cover Harris Teeter's \$250,000 deductible If the arbitrator answered this question in the affirmative, the second inquiry was whether the breach was material The arbitrator rejected Harris Teeter's legal position and determined Harris Teeter had breached the lease and that the breach was material, thus terminating the lease

Harris Teeter fired Respondents and hired another law firm to file a motion for reconsideration While the reconsideration motion was pending, Harris Teeter and EBV settled the matter by agreeing to new lease terms, most notably a substantial increase in rent

D

Thereafter, Harris Teeter filed a complaint against Respondents alleging causes of action for professional negligence, breach of contract, and breach of fiduciary duty The circuit court granted summary judgment in favor of Respondents with respect to all claims, only three of which Harris Teeter has pursued on appeal the claims that Respondents committed malpractice by failing to (1) introduce any evidence in regards to two *Kiriakides*^[4] factors, (2) advise Harris Teeter of the risk of lease termination, and (3) settle the case prior to arbitration [5]

III

LAW/ANALYSIS

In order to prevail in a cause of action for legal malpractice, the plaintiff must prove (1) the existence of an attorney-client relationship, (2) a breach of duty by the attorney, (3) damage to the client, and (4) proximate cause of the client's damages by the breach *Rydde v Morris*, 381 S C 643, 646, 675 S E 2d 431, 433 (2009) "In South Carolina, attorneys are required to render services with the degree of skill, care, knowledge, and judgment usually possessed and exercised by members of the profession," *Holy Loch Distribs , Inc v Hitchcock*, 340 S C 20, 26, 531 S E 2d 282, 285 (2000), and "[t]he standard to be applied in determining legal malpractice issues is statewide," *Smith v Haynsworth, Marion, McKay & Geurard*, 322 S C 433, 437-38, 472 S E 2d 612, 614 (1996) Finally, generally, a plaintiff in a legal malpractice action must establish this standard of care by expert testimony *Id* at 435, 472 S E 2d at 613

A

We summarily dispose of two of Harris Teeter's claims (1) Respondents failed to advise Harris Teeter of the risk of lease termination, and (2) Respondents failed to settle the case prior to arbitration

(1) Respondents failed to advise Harris Teeter of the risk of lease termination

The record flatly refutes any suggestion that Respondents failed to advise Harris Teeter of the risk of lease termination. On the contrary, the record demonstrates that Respondents provided Harris Teeter a candid assessment of the risk and consequences of lease termination.

On May 8, 2003, Respondents informed Julia Passmore, Harris Teeter's leased property manager, that Harris Teeter's legal position was not necessarily a "slam dunk." Respondents wanted to know if Harris Teeter was comfortable with the risk of "dispossession from the property." Respondents further warned Passmore "about the whims of arbitrators—and the consequences of termination." In Passmore's deposition, she acknowledged that Respondents were emphasizing "[t]hat we could lose the lease."

When Respondents candidly advised Harris Teeter of the realities of litigation and the prospect of losing the lease, Passmore accused Respondents of "sound[ing] wishey washey" in a May 14, 2003, email. There is no evidence to suggest Respondents failed to advise Harris Teeter of the risk of lease termination; instead, the record demonstrates precisely the opposite. In any event, the lease had been terminated by EBV before Respondents' representation of Harris Teeter.

(2) Respondents failed to settle the case prior to arbitration

The record also negates Harris Teeter's claim that Respondents failed to settle the case prior to arbitration. Instead, the record shows that Harris Teeter had no interest in settling. For example, Respondents provided Passmore a copy of the *Kiriakides* opinion. Passmore forwarded the *Kiriakides* opinion to Rudemiller. Passmore's handwritten note to Rudemiller stated "[t]his is a S.C. Supreme Court Case that our attorneys think is relevant in our East Bay situation." And, when, prior to arbitration, Respondents relayed EBV's final settlement offer to Harris Teeter's Rudemiller, he declared the offer "RIDICULOUS."

Furthermore, even Harris Teeter's primary expert, Mark Levick, opined that Harris Teeter's legal position was strong and the dispute should have proceeded to arbitration. The suggestion that there is evidence of malpractice for failing to settle the case prior to arbitration borders on frivolity.

(3) *Kiriakides*

We turn to Harris Teeter's remaining claim that Respondents committed malpractice by failing to introduce any evidence in regards to two of the *Kiriakides* factors. *Kiriakides*, 312 S.C. 271, 440 S.E.2d 364. *Kiriakides* is the controlling case in South Carolina for determining whether a tenant materially breached the terms of his lease agreement with a landlord so as to justify termination of the lease.

In *Kiriakides*, we held, "a lease may not be forfeited for a trivial or technical breach even when

the parties have specifically agreed that 'any breach' gives rise to the right of termination " *Id* at 275 440 S E 2d at 366 Instead we stated, "to justify forfeiture, the breach must be material, serious, or substantial " *Id* In order to determine whether the breach was material, we announced the following five factor test

- (a) the extent to which the injured party will be deprived of the benefit which he reasonably expected,
- (b) the extent to which the injured party can be adequately compensated [by damages] for the part of that benefit of which he will be deprived,
- (c) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (d) the likelihood that the party failing to perform or to offer to perform will cure his failure, taking account of all the circumstances including any reasonable assurances,
- (e) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing

Id at 276, 440 S E 2d at 366-67 (citing Restatement (Second) of Contracts § 241 (1981))

Harris Teeter argues Respondents breached their standard of care by failing to present evidence with regards to the following two *Kiriakides* factors (1) the extent to which the injured party will be deprived of the benefit he reasonably expected, and (2) the extent to which the party failing to perform or offer to perform will suffer forfeiture *Id* , 440 S E 2d at 366 We disagree

The case proceeded to arbitration after Harris Teeter rejected EBV's final settlement proposal In preparing for arbitration, Respondents submitted a pre-hearing memorandum to the arbitrator In the memorandum, Respondents focused on whether Harris Teeter actually breached the lease Durlach's motives for asserting a breach and the materiality of any supposed breach Respondents then cited to *Kiriakides*, the applicable case law, to support their argument

Applicable South Carolina law is set forth in the case of *Kiriakides v United Artists Communications, Inc* , 312 S C 271, 440 S E 2d 364, 366 (1994) (Copy attached) This state's supreme court held therein that a landlord's right to terminate a commercial leasehold is not unlimited and that termination must be tempered by notions of equity and common sense The court found that, before a commercial landlord may evict, the default of the lease agreement must be material "[W]e hold that a forfeiture for a trivial or immaterial breach of a commercial lease should not be enforced " *Id* at 366 The *Kiriakides* court looked at the following factors

- (i) the extent to which the injured party will be deprived of the benefit which he reasonably expected
- (ii) the extent to which the injured party can be adequately

compensated by damages for the part of that benefit of which he will be deprived,

- (iii) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (iv) the likelihood that the party failing to perform or to offer to perform will cure his failure, taking account of all the circumstances including any reasonable assurances, and
- (v) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith dealing

Harris Teeter submits that the evidence as to each of these considerations weighs heavily in its favor and against the harsh remedy of termination

Harris Teeter comes to this proceeding having dealt in good faith and with clean hands. As such, it seeks equity from the Arbitrator as supported by the decision in *Kiriakides*. It has been forced to expend considerable amounts in attorneys' fees, which it will never recover. It does, however, seek return of monies, plus interest, that it has paid in protest to Landlord.

Respondents presented *Kiriakides* to the arbitrator, but made a tactical decision to focus on the materiality of the breach and not the precise extent of the cost of lease forfeiture to Harris Teeter [6]. Additionally, Respondents presented evidence concerning the value of the lease to Harris Teeter to the arbitrator and linked it to Durlach's motives for termination. Respondents' argument to the arbitrator included the following:

The issues that were the history of this situation. Mr. Durlach seems to suggest that he was given a corporate brush-off and not paid enough attention to, or something. I think the testimony is that Harris Teeter is a very responsible corporate operation and responsive corporate operation. They communicated a number of different ways through a number of different people with their landlord. And that this effort -- I think the totality of this situation suggests that this effort to terminate is as much about this low market lease as it is about anything to do with alleged breaches.

Of course Mr. Durlach would like to bring Harris Teeter back to the table, when it has renewal options until 2025, to renegotiate what he would like to say is a market lease with the gun pointed at our head of termination otherwise. I mean, wouldn't anybody want to in that negotiating position?

So what we have now, we believe, is an effort by the landlord to take nonbreaches or -- or fairly debatable misunderstandings, differences of opinion about application, at best, applicable to him, application of ambiguous portions of this lease and to convert those to a reason to terminate.

And the law -- finally, the law is pretty clear in South Carolina since the *Kiriakides* case came down, South Carolina has made a clear decision since 1994 to join the majority of states who do not -- which do not permit a forfeiture of a leasehold interest for an immaterial breach of a commercial lease. The law is very clear now that -- as it is in most states, that a breach must be material.

In some cases materiality is described just exactly as I described it a little while ago. The material expectation of a landlord in a lease agreement is to get his rent and to -- you know, in many states in these cases that talk about this law, they cite the equitable principle. Since South Carolina now imposes an equitable obligation on the trier of the fact, they cite the equitable principle that the law abhors a forfeiture, equity does abhor a forfeiture. There's no question about that under the law.

There is a federal case law in the Fourth Circuit that says in the liberally related rule of contracts that the law abhors a forfeiture and that, quote, contractual provisions for forfeiture are looked upon with disfavor by the Courts, *Galvin against Southern Hotels*. It's an old principle, but it's new law in South Carolina that commercial leases are now imbued with principles of equity. This -- it's relative -- it's nine years old, but it's clearly the law.

And so we just ask you to do what you already know how to do, is to read a contract. You don't need me to tell you how to do that, but they can't always be read literally to the exclusion of all other concerns. They very seldom can. This one cannot. And we think that's what the landlord has done and we think it's for the sole purpose of getting us into a very vulnerable defensive position to renegotiate the contract, pure and simple. That's what we think it's about. And if we breached or we're in default, I believe it was immaterial, I submit it was immaterial, from immaterial matters -- not going to the heart of the contract and not grounds for termination.

Although Respondents elected to emphasize the materiality of the breach, the record contains no support for Harris Teeter's contention that no evidence was presented as to the two disputed *Kiriakides* factors.

B

Proximate Cause

Even if Harris Teeter had produced a scintilla of evidence that Respondents breached the standard of care by not fully presenting all of the *Kiriakides* factors to the arbitrator, Harris Teeter's claim would fail for lack of proximate cause. The claim fails for lack of proximate cause because, regardless of the source of the arbitrator's knowledge, he was fully aware of the *Kiriakides* decision. In his written ruling, the arbitrator cited and considered all *Kiriakides* factors. Of particular concern to Harris Teeter was the factor dealing with "the extent to which a party failing to perform will suffer forfeiture." The following excerpt from the arbitrator's decision lays to rest any suggestion that he failed to consider the consequences of lease forfeiture.

While the *Arbitrator is ever mindful that termination and forfeiture of the Lease is a drastic remedy* and must be tempered by notions of equity and common sense, Harris Teeter's pattern of behavior and the resulting non-payment of sums owed under the Lease until the Lease was terminated justify EBV's actions. The numerous opportunities presented to Harris Teeter to timely address EBV's concerns and to cure its failure to pay sums due to Landlord under the Lease prior to termination (or to timely pay such sums in protest) simply cannot be ignored.

(Emphasis added) [7] Thus, any alleged failure by Respondents to present all *Kiriakides* factors was not the proximate cause of Harris Teeter's loss.

C

Harris Teeter relied on the deposition testimony of two experts, Levick and Charles Scarminach, to defeat summary judgment. Even if we were to accept Harris Teeter's argument that Levick and Scarminach were qualified to render an expert opinion, we agree with the trial court that their deposition testimony failed to present evidence of a breach of the standard of care or a genuine issue of material fact regarding proximate cause. Harris Teeter apparently recognized the clear insufficiency of the Scarminach and Levick testimony, for it submitted post-deposition affidavits in an attempt to rescue its malpractice claims. The trial court properly characterized these post-deposition affidavits as "sham" affidavits. See *Cothran v. Brown*, 357 S.C. 210, 218, 592 S.E.2d 629, 633 (2004) (setting forth six considerations a court may use to determine if a post-deposition affidavit is a "sham affidavit").

Scarminach concluded that the Respondents had breached the standard of care—despite failing to establish the standard of care in his deposition. The correct standard of care is "the degree of skill, care, knowledge, and judgment usually possessed and exercised by members of the profession." *Holy Loch Distribs.*, 340 S.C. at 26, 531 S.E.2d at 285. Scarminach, however, did not testify as to this standard. Instead, when asked about the definition of standard of care upon which he relied to form his opinion, Scarminach replied, "It's my standard." He later clarified by stating that his standard was that "of someone reading this at the end of the case," or "that of a businessman's lawyer." Neither of these additional statements accurately presents the proper standard of care. Thus, Scarminach's conclusory statement that Respondents breached the standard of care does not create a genuine issue of material fact.

Furthermore, Scarminach did not testify that the Respondents' action satisfied the causation in fact requirement of proximate cause. *Oliver v. S.C. Dep't of Highways & Pub. Transp.*, 309 S.C. 313, 316, 422 S.E.2d 128, 130 (1992) (stating that proximate cause requires proof of causation in fact and legal cause) *id.* (stating that causation in fact is proved by showing that plaintiff's injury would not have occurred "but for" defendant's negligence). When asked if the case would have produced a different outcome had the Respondents not breached their standard of care, Scarminach hedged: "you never know because it's conjecture." Instead of stating that the Respondents' conduct most probably caused the outcome, Scarminach said, "had [Respondents] done these things, the percentage of success would have been greater." Thus, Scarminach's deposition did not establish that the Respondents' actions were the "but for" cause of Harris Teeter's loss.

Levick, on the other hand, testified the standard of care is a determination of what a "reasonably competent lawyer [would] do given the facts and situations they were handed."

This generic statement is true in the abstract, as it can be applied to any professional negligence claim. Yet this circular opinion, when combined with Levick's deposition testimony, does not create a genuine issue of fact as to a breach of the standard of care. Levick's statement merely begs the question and adds nothing to the analysis of the substantive legal malpractice claim.

Levick's deposition testimony reveals the basis of this legal malpractice claim—a bad result. Levick was questioned concerning the basis of his opinion of Respondents' malpractice. Instead, Levick embarked on an unsolicited and unfounded attack against the arbitrator and his integrity. Levick stated that if the arbitrator were "fair, there is not a way in the world that [he] could have come up with this decision." Levick further stated, "I don't think [the arbitrator] had a clue" and "what [Respondents] didn't communicate was who they were dealing with as an arbitrator."

When asked if Harris Teeter would have "won before the arbitrator if the case had been handled in some different fashion[.]" Levick acknowledged, "Obviously, it's speculation." We agree. But Levick's "speculation" admission forms only part of our reasoning for concluding that his testimony is not sufficient to survive summary judgment. Like the excellent trial judge, we have carefully reviewed the entirety of Levick's testimony. Levick speaks only in generalities when he opines the case was not "properly presented." Levick's generalities fall woefully short of our admissibility standards for experts in professional negligence cases. Therefore, we agree with the trial court that neither expert presented evidence to help Harris Teeter survive Respondents' motion for summary judgment.

D

Because Harris Teeter's malpractice claim seeks to establish the element of a breach of the standard of care through the arbitrator's adverse ruling, we address the relationship between a "bad result" and a professional malpractice claim. Harris Teeter lost in arbitration—and that bad result forms the core of Harris Teeter's malpractice allegation. Of course, any professional negligence claim involves a bad result. We reject as a matter of law any suggestion that a bad result is evidence of the breach of the standard of care. To do so would change the landscape of our malpractice law, for all professionals. We adhere to the principle that the exercise of a professional's judgment (and accompanying acts and omissions) must be considered at the time the professional service is rendered and not through the lens of hindsight.

In rejecting a hindsight analysis, the trial court found Respondents' actions were protected under the judgmental immunity rule, which has not been formally adopted in South Carolina. The judgmental immunity rule provides that "there can be no liability for acts and omissions by an attorney in the conduct of litigation which are based on an honest exercise of professional judgment." *Woodruff v. Tomlin*, 616 F.2d 924, 930 (6th Cir. 1980). In referring to the judgmental immunity rule as "a sound rule," the *Woodruff* court observed that "[o]therwise every losing litigant would be able to sue his attorney if he could find another attorney who was willing to second guess the decisions of the first attorney with the advantage of hindsight." *Id.* In assessing liability, a court should never measure a professional's performance through the lens of hindsight. Although an attorney may be liable for damages to a client for failure to act with a reasonable degree of skill and care, "[t]his does not mean, however, that an attorney acts as an insurer of the outcome of a case." *Crosby v. Jones*, 705 So. 2d 1356, 1358 (Fla. 1998).

Respondents made an informed judgment in their approach to the arbitration hearing. Respondents made a tactical and strategic decision to focus on whether Harris Teeter actually breached the lease and the materiality of the alleged breach. Respondents, specifically Howell Morrison, made a tactical decision not to emphasize the precise value (in dollar terms) of the under-market lease because the attorneys believed this could work to Harris Teeter's detriment. "In my judgment it would not have helped the presentation of the case to emphasize the under market lease that Harris Teeter held and in my view then, and still in my view, if we had spent time showing the Arbitrator emphasizing that we had a submarket lease, it was very much a two-edged sword that could have easily worked to our detriment."

Morrison made a judgment call concerning the presentation of the *Kiriakides* factors—a judgment call that was not unreasonable as a matter of law. Because the judgment call was reasonable as a matter of law (and consequently no question of fact is presented), there is no viable claim of malpractice. Morrison's judgment call falls squarely in the category of a "professional judgment made with reasonable care and skill." *Biomet Inc v Finnegan Henderson LLP*, 967 A 2d 662, 666.

Although the judgmental immunity rule correctly highlights the rejection of a hindsight analysis, Respondents' entitlement to summary judgment does not depend on our adoption of the rule. We therefore leave the question of adoption of the judgmental immunity rule for another day [8]

E

The practice of law is not an exact science. The practice of law involves the exercise of judgment based on the circumstances known and reasonably ascertainable at the time the judgment is rendered. "[A] lawyer shall exercise independent professional judgment and render candid advice." Rule 2.1, RPC, Rule 407, SCACR. The Rules of Professional Conduct are replete with the recognition that a lawyer cannot pursue every issue that arises in a case while effectively representing his or her client. To the contrary, the Rules recognize that in order to provide a client the best and most competent representation, a lawyer has the professional discretion to make a judgment call as to which legal theories are the strongest and will best serve the client's interest. See Rule 1.3, cmt. 1, RPC, Rule 407, SCACR ("A lawyer is not bound, however, to press for every advantage that might be realized for a client. For example, a lawyer may have authority to exercise professional discretion in determining the means by which a matter should be pursued"), *Hudson v Windholz*, 416 S.E.2d 120, 124 (Ga. 1992) (recognizing that "the tactical decisions made during the course of litigation require, by their nature, that the attorney be given a great deal of discretion").

In retrospect, should Respondents have presented precise financial data to the arbitrator concerning the substantial boon of the under-market lease to Harris Teeter? Perhaps. But hindsight is not the measuring stick. A case can always be tried "better." Respondents made a considered judgment to focus on the merits of the alleged breach and particularly its materiality. As noted, that judgment call was not unreasonable as a matter of law. And as the arbitrator acknowledged, lease forfeiture was a "drastic remedy," as all understood that EBV wanted a new lease with market based rent and Harris Teeter wanted to preserve the 1979 lease.

Here, Respondents candidly warned Harris Teeter of the risk of lease termination, even to the point of Harris Teeter characterizing Respondents' legal candor as "wishey washey." Harris Teeter's flippant disregard of Respondents' candid warning mirrored its longstanding disregard

of EBV's inquiries and requests to honor the lease Harris Teeter went into arbitration with its eyes wide open regarding the risk Respondents exercised independent and reasonable professional judgment in choosing what they deemed a proper strategy in representing Harris Teeter's interest before an arbitrator highly skilled and knowledgeable in commercial real estate matters Because Respondents' judgment was not unreasonable as a matter of law, the trial court properly dismissed this malpractice claim

IV

CONCLUSION

We affirm the grant of summary judgment to Respondents

AFFIRMED

TOAL, C J , BEATTY, J , and Acting Justice James E Moore, concur HEARN, J , concurring in part and dissenting in part in a separate opinion

JUSTICE HEARN Respectfully, I concur in part and dissent in part I fully concur in the majority opinion to the extent that it affirms the circuit court's grant of summary judgment in favor of Respondents on the grounds they committed malpractice by failing to advise Harris Teeter of the risk of lease termination and by failing to settle the case before arbitration However, I part company with the majority and would reverse the circuit court's grant of summary judgment as to Harris Teeter's allegations that Respondents committed malpractice by failing to introduce any evidence in regards to the two *Kiriakides* factors

I

The single issue presented is whether Harris Teeter has presented sufficient evidence to survive summary judgment, I express no opinion as to what the outcome of this case would be after a trial on the merits Faithful to my understanding of the principles governing review of an order granting summary judgment, as recently enunciated by this Court, my focus is only on whether Harris Teeter has presented a mere scintilla of evidence in support of its allegations of malpractice See *Hancock v Mid-S Mgmt Co* , 381 S C 326, 330, 673 S E 2d 801, 803 (2009) ("[I]n cases applying the preponderance of the evidence burden of proof, the non-moving party is only required to submit a mere scintilla of evidence in order to withstand a motion for summary judgment ") This standard requires merely "the slightest amount of relevant evidence" on an issue to warrant denial of summary judgment *Black's Law Dictionary* 635 (3d pocket ed 2006) If this indeed is the standard, it must be applied in every case, including attorney malpractice cases

As the majority correctly recognizes, *Kiriakides v United Artists Communications, Inc* , 312 S C 271 440 S E 2d 364 (1994), is the controlling case in South Carolina to determine whether a tenant materially breached the terms of his lease agreement with a landlord so as to justify termination of the lease In *Kiriakides* we held, "a lease may not be forfeited for a trivial or technical breach even when the parties have specifically agreed that 'any breach' gives rise to the right of termination " 312 S C at 275, 440 S E 2d at 366 Instead, we stated, "to justify forfeiture, the breach must be material, serious, or substantial " *Id* In order to determine whether the breach was material, we announced the following five factor test

- (a) the extent to which the injured party will be deprived of the benefit which he reasonably expected,
- (b) the extent to which the injured party can be adequately compensated [by damages] for the part of that benefit of which he will be deprived,
- (c) the extent to which the party failing to perform or to offer to perform will suffer forfeiture,
- (d) the likelihood that the party failing to perform or to offer to perform will cure his failure, taking account of all the circumstances including any reasonable assurances,
- (e) the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing

Id at 275-76, 440 S E 2d at 366-67 (citing Restatement (Second) of Contracts § 241 (1981))

A Standard of Care

During Levick's deposition, he testified that Respondents breached their standard of care by failing to introduce any evidence during the arbitration in regards to the two *Kiriakides* factors [9] In his deposition, Levick was asked, "[w]as it incompetent to fail to put in the monetary value of the lease to Harris Teeter?" Levick responded "yes " Additionally, Levick testified that Respondents' failure to introduce any evidence during the arbitration concerning the value of Harris Teeter's current lease—as Levick stated, "not just to Harris Teeter, but the value to the landlord when he bought it"—was a "key issue " At another point in his deposition, Levick was asked, "[g]iven the first *Kiriakides* factor is the extent to which a party will be deprived o[f] [the] benefit[] reasonably expected was it incompetent to fail to specifically argue that factor was met because Harris Teeter always paid their rent?" Again, Levick responded "yes " Moreover, the following colloquy occurred during Levick's deposition

Q Let's go down to [subpart] D [of Harris Teeter's complaint against Respondents], failing to adequately prepare for the arbitration Tell me specifically what was not done that you think in your judgment should have done to prepare?

A I would have had a tremendous amount of evidence on the value of the lease to Harris Teeter I would have had a whole economic evaluation of why the purchase price that was paid at the time that Durlach bought it, why that price was fair and reasonable given the lease and what a windfall the termination would produce I would have an appraiser's analysis show the value of the property if the Harris [Teeter] lease wasn't in place And I don't recall that any of that—well, I didn't see that any of that was presented In fact, I did see that there was a conscious decision to not show the value of the lease to Harris Teeter There was no evidence submitted on any of this I can find

The majority disregards Levick's testimony and concludes "Respondents presented *Kiriakides* front and center to the arbitrator " This finding is in direct conflict with the testimony of Howell

Morrison, the attorney representing Harris Teeter at arbitration. During his deposition, Morrison acknowledged he did not introduce any evidence in regards to the *Kiriakides* factors at issue. In fact, Morrison testified that he made a conscious decision not to introduce such evidence. The relevant portions of Morrison's testimony are quoted below.

Q Did you ever look at the effect of that long term lease that was under market [value] on the price that Mr. [D]urlach paid for the building?

A I knew that it had a depressive market impact on the market value for most buyers. I assumed so. It was common sense and obvious to me.

Q Did you get any evidence on that? I don't see any evidence in the record about that.

A No. I didn't see that as any primary issue in the Arbitration.

Q The first criteria [sic] of the *Kiriakides* [case] is the extent to which the injured party will be deprived of the benefit which he reasonably expected. If you buy a building under value, depressed because of the lease, you're expecting to get the lease that's on the building—the lease payments aren't you?

A If you buy below market value or above market value or at market value, you expect to get your lease. Right.

Q I don't see anything in the record to show how much money Mr. Durlach was going to [make in] windfall, not only in lease payments, but in the value to his property by getting this lease out. And that was crucial to this case. Why wouldn't you have [done] that?

A It was not crucial. In my judgment it would not have helped the presentation of the case to emphasize the under market lease that Harris Teeter held.

Q Is there any evidence in the record that would show what the value would—how the fair market value of the building would appreciate or what rent he might get?

A I did not specifically introduce evidence of that type. And in my view then, and still in my view, if we had spent time showing the Arbitrator emphasizing that we had a submarket lease, it was very much a two-edged sword that could have easily worked to our detriment.

Q Did you put in one dollar figure at what it would cost Harris Teeter?

A I don't think [so] I made a decision not to do that

Q And did you have in the record, one dollar figure at how this would impact Mr Durlach in getting more money than he would have expected when he bought the property?

A Well, what if he expected to find a way to renegotiate the lease, number one?

Q Did you show him [the arbitrator] how much money he would make by doing that?

A No I did not express total dollar figure either way

The majority relies exclusively on Respondents' pre-hearing memorandum and comments made by Respondents during opening and closing arguments to support its conclusion that Respondents fully presented *Kiriakides* to the arbitrator [10] As demonstrated by the testimony set forth above, Morrison unequivocally conceded that he did not introduce any evidence pertaining to the two *Kiriakides* factors in question to the arbitrator Moreover, the statements relied on by the majority—the pre-hearing memorandum and opening and closing remarks—are merely arguments of counsel and have long been recognized by this Court not to constitute evidence See, e g , *Ex parte Morris*, 367 S C 56, 64, 624 S E 2d 649, 653 (2006)

B Proximate Cause

In order to demonstrate proximate cause, a plaintiff must show he most probably would have been successful in the underlying suit if the attorney had not committed the alleged malpractice *Summer v Carpenter*, 328 S C 36, 42, 492 S E 2d 55, 58 (1997) This Court in *Baughman v American Telephone & Telegraph Co* succinctly stated the "most probably" rule as follows

It is not sufficient for the expert to testify merely that the ailment might or could have resulted from the alleged cause He must go further and testify that taking into consideration all the data it is his professional opinion that the result in question most probably came from the cause alleged

306 S C 101, 111, 410 S E 2d 537 543 (1991) But, "[i]n determining whether particular evidence meets this test it is not necessary that the expert actually use the words 'most probably'" *Id*

To survive summary judgment, the evidence presented must amount to more than mere speculation and conjecture *McKnight v S C Dep't of Corrs* , 385 S C 380, 390, 684 S E 2d 566, 571 (Ct App 2009) The expert must therefore state this opinion with reasonable certainty See *Ellis v Oliver*, 323 S C 121, 125, 473 S E 2d 793, 795 (1996) However, in evaluating a motion for summary judgment, we must not weigh the credibility of the witnesses and the testimony *Anderson v The Augusta Chronicle*, 355 S C 461, 475, 585 S E 2d 506, 513 (Ct App 2003) Thus, if the expert's testimony facially meets these criteria, it will be sufficient to defeat summary judgment

During his deposition, Levick testified as follows

My opinion is had they gone step by step through the *Kiriakides* case, had they shown the extreme windfall for the landlord and the extreme detriment to the tenant, had they shown the communications between the parties in great depth orally, had they shown the intent of the original parties in its entirety, had they shown what the law is in other jurisdictions, had they shown custom and usage there is not a way in the world that they could have come up with this decision That is my opinion It could not have happened

Then, in another point in his deposition, the following colloquy occurred

Q Is it your overall opinion that if this case before the arbitrator had been handled in some different fashion, more specifically in the way that you suggest, the case would have been won by Harris Teeter before this arbitrator?

A Obviously it's speculation, but in reading the opinion, the only thing that I can gather is that the arbitrator believed that Harris Teeter's conduct was so egregious that terminating a very valuable lease was a remedy I don't think that the arbitrator had an inkling in assuming he was the fair person that they thought they were hiring, had an inkling that this was a landlord who Harris Teeter's lawyer believed was trying to set them up for a lease termination, that basically was trying to get out of this lease and was using the arbitrator as a way to do it I don't think he had a clue, and I don't think he would have permitted himself to be used as a vehicle for terminating a perfectly valid lease that had been in force for 21 years when the guy bought it, that he bent backwards and forwards over it, that he requested no changes when he bought it, that this all of a sudden would translate into egregious bad faith that would deprive HT [sic] of the benefit of a lease that they had honored for 21 years *I just don't see him coming to that decision if the case was presented properly*

(emphasis added)

Levick's first statement clearly satisfies the most probable requirement As a result, I would hold that Harris Teeter has presented sufficient evidence to survive summary judgment with respect to its allegation that Respondents committed malpractice by failing to introduce any evidence in regards to the two *Kiriakides* factors

Admittedly, Levick's second statement is more problematic because he began by stating, "[o]bviously it's speculation " In the circuit court's view, Levick's introductory statement rendered his entire opinion on the issue of proximate cause as nothing more than mere conjecture or speculation I disagree with this interpretation of the statement In reading Levick's second statement in context, I would find he did not state his conclusion—whether the result of the proceeding most probably would have been different—was speculation [11] See *Brockbank v Best Capital Corp* , 341 S C 372, 378-79, 534 S E 2d 688, 692 (2000) ("In determining whether any triable issues of fact exist, the court must view the evidence and all reasonable inferences that may be drawn from the evidence in the light most favorable to the non-moving party ") Rather, in answering the question, Levick began by speculating as to *why* the

arbitrator reached the conclusion he reached. In doing so, he initially stated that such telepathy is "[o]bviously speculation." In explaining why he believed the arbitrator terminated the lease, Levick surmised that the arbitrator inexplicably and erroneously viewed Harris Teeter as the bad actor in this case when in reality the landlord was the bad actor. This hypothesizing ended, however, when at the end of his answer Levick unequivocally stated, "I just don't see him coming to that decision if the case was presented properly."

In *Baughman*, this Court stated expert testimony is sufficient to establish proximate cause so long as the testimony is such "as to judicially impress" that the opinion represents the expert's professional judgment as to the most likely among possible outcomes. 306 S.C. at 111, 410 S.E.2d at 543 (internal quotation omitted). Mindful of *Baughman* and our standard of review, I would find Levick testified that the result of the proceeding most probably would have been different if Respondents had not breached their duty of care to Harris Teeter [12].

Based on our analysis, I would conclude that Levick's deposition established the standard of care for attorneys, Respondents breached that standard of care by failing to introduce any evidence in regards to the two *Kiriakides* factors, and finally, that the result of the proceeding most probably would have been different had Respondents not breached their duty of care to Harris Teeter.

C. Judgmental Immunity Rule

I concur in the majority's decision to not adopt the judgmental immunity rule at this time. Under the judgmental immunity rule, strategic decisions made by an attorney in good faith and in conformity with the standard of care cannot be the basis of a legal malpractice claim. *Biomet Inc. v. Finnegan Henderson LLP*, 967 A.2d 662, 666 (D.C. 2009). If Respondents did not breach their standard of care as a matter of law, then an additional rule insulating them from liability is unnecessary. While I agree that we should not adopt this rule under the facts before us, it would be my view that we should never adopt it.

The core of this rule is nothing more than a tautology, it has always been clear that so long as an attorney exercises a reasonable degree of skill and care he will not suffer liability. Adopting a separate rule that restates that cardinal principle of our malpractice jurisprudence and denominates it an "immunity" certainly is *de trop*. See *Sun Valley Potatoes, Inc. v. Rosholt, Robertson & Tucker*, 133 Idaho 1, 5 (1999) ("Rather than being a rule which grants some type of 'immunity' to attorneys, it appears to be nothing more than a recognition that if an attorney's actions could under no circumstances be held to be negligent, then a court may rule as a matter of law that there is no liability."). Indeed, if this rule is in fact different from our general rules concerning attorney malpractice, then it would inherently sanction some conduct that would otherwise be negligent. To the extent the judgmental immunity rule restates the general rule that attorneys must comply with the standard of care, I would not adopt it as it is superfluous, to the extent that it offers any more protection to attorneys, I cannot join in the sanctioning of unprofessional and negligent conduct under the guise of "good faith" and "professional judgment."

II

Every malpractice case is, by its very nature, "Monday morning quarterbacking," and I wholeheartedly agree with the majority's statement that "[t]he practice of law is not an exact science." I also agree we grant attorneys a wide degree of discretion in how they prepare and

try their cases. Indeed, clients are compensating attorneys for that very exercise of discretion. However, the issue of whether Respondents committed legal malpractice is not before the Court, that question must wait for another day. Rather, today we are called upon to determine solely whether Harris Teeter has met its burden in opposing summary judgment. I would hold that Harris Teeter adduced at least a mere scintilla of evidence sufficient to survive summary judgment. I want to reiterate that in so doing, I pass no judgment on the merits of either side of this case or Levick's credibility. Rather, I would faithfully adhere to the principles established by this Court as to the role we play on review of summary judgment orders. Accordingly, I would reverse and remand for a trial on the merits of Harris Teeter's claim regarding the two *Kiriakides* factors.

[1] The lease explicitly provided that the tenant had ten days to cure any monetary default and thirty days to cure any nonmonetary default.

[2] Harris Teeter also filed a malpractice claim against the first South Carolina law firm, that firm settled the claim.

[3] A VCC is a contract between the Department of Health and Environmental Control (DHEC) and a nonresponsible party pledging to clean up environmental contamination, enacted under the Brownfields/Voluntary Cleanup Program, codified at South Carolina Code sections 44-56-710 through 760 (2002). Under a VCC, the nonresponsible party agrees to clean up the contamination in return for liability protection from DHEC.

[4] *Kiriakides v. United Artists Communications, Inc.*, 312 S.C. 271, 440 S.E.2d 364, 366 (1994).

[5] Harris Teeter has not appealed from the circuit court's ruling with respect to the other claims against Respondents. Therefore, the circuit court's ruling on those claims is the law of the case. See *Ex parte Morris*, 367 S.C. 56, 65, 624 S.E.2d 649, 653-54 (2006) (stating an unappealed ruling is the law of the case).

[6] The East Bay store has been a financial boon for Harris Teeter. Harris Teeter has annual sales in excess of two billion dollars, and the East Bay store has annual sales of twenty-four million dollars. Soon after EBV purchased the property and lease questions remained unresolved, Harris Teeter inquired about the potential to acquire the property. As Passmore testified at the arbitration: "Yes, I did make a telephone call to Mr. Durlach at the request of the president of Harris Teeter to ask Mr. Durlach if we could acquire the property."

[7] The parenthetical regarding the payment of the disputed expenses "in protest" lends Harris Teeter no support, for it was only after Harris Teeter retained Respondents that the expenses were paid to EBV. Respondents were retained in mid-January 2003. Payment of the disputed sums was made in mid-May 2003.

[8] Moreover, the judgmental immunity rule, if adopted, would serve merely as an adjunct at the summary judgment stage. The judgmental immunity rule would not shield an attorney from a malpractice claim when there is evidence of a failure to act with a reasonable degree of skill and care, which proximately causes damage, regardless of the attorney's good faith. Good faith standing alone, is no defense to the objective-based malpractice standard. See *Ardis v.*

[9] I agree with the majority's determination that Scarminach failed to establish the appropriate standard of care and satisfy the "most probably" requirement to prove proximate cause. Accordingly, his testimony and post-deposition affidavit are irrelevant to the determination of whether Harris Teeter has set forth sufficient evidence to survive summary judgment. I disagree, however, with the conclusion that Levick's post-deposition affidavit is a sham because this later affidavit did not contradict the position he took at his deposition. See *Cothran v. Brown*, 357 S C 210, 218, 592 S E 2d 629, 633 (2004) (stating under the sham affidavit rule, a court may disregard a subsequent affidavit as a sham—as not creating an issue of fact for purposes of summary judgment—if the subsequent affidavit contradicts a party's own prior sworn statement).

[10] I note even in the pre-hearing memorandum and in opening and closing statements, Respondents merely mentioned *Kiriakides* by name, listed the five factor test, and generally stated the factors weighed in Harris Teeter's favor. Respondents never produced any evidence demonstrating how these two *Kiriakides* factors applied to the facts of this case.

[11] Even if I were to agree with the circuit court and the majority that Levick failed to satisfy the most probably requirement in his second statement, Harris Teeter has still presented sufficient evidence to overcome Respondents' motion for summary judgment by virtue of Levick's first statement.

[12] The majority holds that Harris Teeter's claim fails for lack of proximate cause because the arbitrator, in his ruling, did cite and discuss all the *Kiriakides* factors. In response, Harris Teeter offered the testimony of Levick, as discussed above. These two competing viewpoints—that the arbitrator fully considered *Kiriakides* and that he most probably would have reached a different conclusion had the Respondents fully presented *Kiriakides* to him—are the *sine qua non* of denying summary judgment: a genuine issue of material fact.