

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE
AT WINCHESTER

AARON HILL, <i>et al.</i> ,)	
)	Case No. 4:16-cv-117
<i>Plaintiffs,</i>)	
)	Judge Atchley
v.)	
)	Magistrate Judge Steger
KIA MOTORS AMERICA, INC., <i>et al.</i> ,)	
)	
<i>Defendants.</i>)	
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ROGER DALE PARKS, <i>et al.</i> ,)	Case No. 4:16-cv-118
)	
<i>Plaintiffs,</i>)	Judge Atchley
)	
v.)	Magistrate Judge Steger
)	
KIA MOTORS AMERICA, INC., <i>et al.</i> ,)	
)	
<i>Defendants.</i>)	

MEMORANDUM OPINION AND ORDER

Before the Court are the Motion to Exclude Testimony of Tyler A. Kress, Ph.D. [Case No. 4:16-cv-117, Doc. 309; Case No. 4:16-cv-118, Doc. 286], Motion to Exclude the Testimony of Steven Loudon [Case No. 4:16-cv-117, Doc. 311; Case No. 4:16-cv-118, Doc. 288], and the Motion for Summary Judgment [Case No. 4:16-cv-117, Doc. 316; Case No. 4:16-cv-118, Doc. 293], all filed by Defendants Kia Motors America, Inc. and Kia Motors Corporation (“Kia”).¹ This Court previously granted in part motions to exclude the testimony of Samuel J. Sero and Byron Bloch, denied as moot Kia’s motions to exclude the testimony of Tyler Kress and Steven Loudon, granted Kia’s motion for summary judgment, and dismissed this action with prejudice. [Docs. 341

¹ For clarity and ease of reference, all subsequent citations are to the filings in the lead case, 4:16-cv-117. Citation is to CM/ECF-stamped document and page numbers, rather than to the internal pagination of any document.

& 342]. On appeal, the United States Court of Appeals for the Sixth Circuit reversed the Court's holding as moot the motions to exclude expert witnesses Kress and Loudon and remanded the case for the Court to consider those motions on the merits. For reasons that follow, the Motion to Exclude Testimony of Tyler A. Kress, Ph.D. [Case No. 4:16-cv-117, Doc. 309; Case No. 4:16-cv-118, Doc. 286] and Motion to Exclude the Testimony of Steven Loudon [Case No. 4:16-cv-117, Doc. 311; Case No. 4:16-cv-118, Doc. 288] will be **GRANTED IN PART**. Because Plaintiffs have not presented any evidence of a specific defect in the subject vehicle that caused their damages, the Motion for Summary Judgment [Case No. 4:16-cv-117, Doc. 316; Case No. 4:16-cv-118, Doc. 293] will be **GRANTED** and this action **DISMISSED WITH PREJUDICE**.

I. FACTUAL BACKGROUND AND PROCEDURAL POSTURE

On December 31, 2015, eighty-three-year-old Mary Parks drove her 2008 Kia Optima MG down Dinah Shore Boulevard in Winchester, Tennessee. [Doc. 325 at 4-5]. Her sister, Jimmie Ruth Northcutt, was a passenger in the vehicle. The pair intended to go to the grocery store, but instead of turning left, the vehicle accelerated to just over 90 miles per hour over the course of roughly half a mile. Eyewitnesses stated that Parks was driving as if to avoid hitting other vehicles. [See Doc. 321 at 16-20]. The car hit the back of a minivan at the intersection. The impact killed two seven-year old passengers of the minivan and fatally injured Ms. Parks.

At the scene, Parks stated "something happened to her car, she couldn't control it." [Doc. 204-5 at 10]. Post-crash inspection revealed that the throttle was in nearly-wide open orientation. [Doc. 317-15 at 18]. The National Highway Traffic Safety Administration ("NHTSA") crash report for the accident indicated the tachometer reading was approximately 4,300 RPM and the speedometer reading was approximately 92 mph. [Doc. 204-5 at 15]. The inspection found that the brake light filament was intact and the brake rotors were not heat stressed, which would not be

expected had the brakes been applied before the crash. [Doc. 204-5 at 13]. Video surveillance footage showed that Parks' brake lights were not illuminated in the seconds before the crash. [*Id.* at 8]. This tragic incident gave rise to the instant action, in which Plaintiffs seek to hold Kia responsible for a defect in the vehicle that Ms. Parks was driving.

The central issue in this case is why the vehicle accelerated. Plaintiffs argue that it was an errant signal from the cruise control system that caused Ms. Parks' vehicle to accelerate to over 90 miles per hour. The Kia Defendants maintain the cause was pedal misapplication by Ms. Parks, a rare but "well-documented" phenomenon in which drivers believe they are pressing the brake pedal when they are actually pressing the accelerator pedal. [*See* Doc. 317-15 at 29] (quoting July 16, 2003, Report of U.S. National Transportation Safety Board [Doc. 143 at 45]). Regardless, Kia contends that Plaintiffs have not identified a specific defect in the vehicle that caused the accident.

This matter came before United States District Judge Harry S. Mattice, Jr., on Kia's motion for summary judgment and motions to exclude the testimony of Plaintiffs' proposed experts: Samuel Sero, Byron Bloch, Tyler Kress, and Steven Loudon. [Doc. 341]. The Court first granted in part Kia's motions to exclude the testimony of Sero and Bloch. Both theorized that electromagnetic interference ("EMI") or "crosstalk" could have caused a malfunction in the cruise control that in turn caused unintended acceleration. In broad strokes, the EMI theory is that the adjacency of multiple electrical circuits in modern vehicles – specifically, in this vehicle's clock spring – can result in faulty signals. Here, Plaintiffs theorize that EMI could have or did cause an errant signal from the cruise control system, which in turn caused the throttle to open and the car to accelerate. [Doc. 313-1 at 4]. The Court found that Plaintiffs had not established the reliability of Sero's conclusion that EMI could have caused a sustained, unintended, and uncontrollable acceleration in the 2008 Kia Optima. [Doc. 341 at 19]. The Court found Bloch's crosstalk/EMI

theory and related conclusions similarly unreliable. [*Id.* at 26]. Kia's *Daubert* motions were therefore granted in part.

Judge Mattice then denied as moot Kia's motions to exclude the testimony of Steven Loudon and Tyler Kress, finding that neither expert proposed to testify as to a specific defect in the 2008 Kia Optima that caused the crash. The Court relied on Plaintiffs' representations in their briefing to reach this conclusion. As to Loudon, Plaintiffs had explained that his role was not to replicate a malfunction. "It is the role of Plaintiffs' other experts Samuel Sero and Byron Bloch to describe how the cruise control design can cause unintended throttle opening." [Doc. 322 at 5]. As to Kress, Plaintiffs stated: "Dr. Kress does not purport to opine as to a specific defect in the design of Kia's electronic throttle control system or cruise control system." [Doc. 320 at 2]. The Court therefore determined that neither expert was offered to opine as to a specific defect, and denied the motions to exclude their testimony as moot. [Doc. 341 at 27-28].

Turning to Kia's motion for summary judgment, the Court held: "[T]here is no admissible evidence – direct, circumstantial, or otherwise – showing how the 2008 Kia Optima's cruise control could have caused any unintended acceleration, let alone the acceleration at issue." [Doc. 341 at 36]. Addressing each of Plaintiffs' defect theories in turn, the Court found that, with inadmissible evidence excluded, Plaintiffs could not establish a genuine issue of material fact as to the existence of a specific defect. Plaintiffs appealed the decision, but did not appeal the exclusion of Bloch and Sero's EMI/crosstalk opinions.

The United States Court of Appeals for the Sixth Circuit reversed and remanded. Judge Clay issued the lead opinion, in which Judge Gibbons concurred in judgment, with Judge Bush dissenting. The lead opinion reversed the Court's holding as moot the motions to exclude Kress and Loudon, reversed the order granting summary judgment to Defendants, and remanded the case

for further proceedings. Judge Clay first found that Kress and Loudon offered circumstantial evidence of the source and cause of the accident, and this Court had therefore abused its discretion in denying as moot the motions to exclude these experts. The lead opinion made no holding as to the admissibility of Kress or Loudon's testimony. Yet rather than remanding for the Court to resolve these motions in the first instance, the lead opinion went on to discuss the merits of Kia's motion for summary judgment. Judge Clay first confirmed that "[a] plaintiff must prove a specific defect under the TPLA, regardless of the theory of liability." [Doc. 351 at 17]. The opinion then examined the six pieces of circumstantial evidence Plaintiffs present in opposition to summary judgment. [*Id.* at 18-39]. Though Judge Clay confirmed that the TPLA requires evidence of a specific defect, the lead opinion concludes: "These six theories are circumstantial evidence that an unspecified malfunction caused the crash." [*Id.* at 34]. Throughout this discussion, the opinion relied on the opinions proffered by Kress and Loudon, though both of those motions remain pending.

Concurring in judgment, Judge Gibbons "agree[d] with the majority opinion to the extent that it reverses the district court's holding as to the mootness of the *Daubert* motions regarding Loudon and Kress and vacates the district court's grant of summary judgment." [Doc. 351 at 40]. Like Judge Clay, Judge Gibbons found that Loudon purports to give an opinion as to a specific defect in the vehicle. She explains that "[r]eversing the district court's holding that the motions to exclude Loudon and Kress are moot results in remand for the district court to analyze those motions on the merits." [*Id.* at 41]. After resolving the *Daubert* motions, "it is the district court's role to determine whether to grant summary judgment." [*Id.*].

In his dissent, Judge Bush opined that Plaintiffs expressly waived reliance on Kress and Loudon to provide a specific defect theory and could not change course on appeal. [Doc. 351 at

43]. Because Plaintiffs explicitly disclaimed reliance on Loudon and Kress as to a specific defect that could have caused acceleration, Judge Bush opined that they failed to preserve the issue for appellate review. [*Id.* at 53-54]. Next, Judge Bush noted that while the lead opinion confirms that a “specific defect” is required for a TPLA claim to survive summary judgment, the evidence it relies on is at best evidence of “some defect” in the vehicle. [*Id.* at 58-59].

Judge Gibbons concurred in judgment only. Accordingly, the lead opinion’s discussion of the motion for summary judgment does not reflect a holding of the Sixth Circuit and is not binding. *See Marks v. United States*, 430 U.S. 188, 193 (1977) (“[T]he holding of the Court may be viewed as the position taken by those Members who concurred in the judgments on the narrowest grounds.” (citation omitted)). Even so, the Court is unquestionably guided by the reasoning of the higher court. The Court understands its present task as to first resolve the motions to exclude Kress and Loudon. After determining what admissible evidence is in play, the Court must then resolve the motion for summary judgment on the record before it.

II. INTRODUCTION

The Tennessee Products Liability Act, T.C.A. §§ 29-28-101 *et seq.*, governs this action. [Doc. 325 at 7; Doc. 317 at 6]. A brief overview of the TPLA is helpful in framing the *Daubert* analysis. Regardless of the theory of liability presented, “the same three-pronged *prima facie* case applies in all TPLA cases.” *Hill v. Kia Motors Am., Inc.*, 2022 WL 557823, *7 (6th Cir. Feb. 24, 2022). To establish a *prima facie* products liability claim under Tennessee law, the plaintiff must show (1) the product was defective and/or unreasonably dangerous, (2) the defect existed at the time the product left the manufacturer’s control, and (3) the plaintiff’s injury was proximately caused by the defective product. *Sigler v. American Honda Motor Co.*, 532 F.3d 469, 483 (6th Cir. 2008). As Judge Clay observed, “[a] plaintiff must prove a specific defect under the TPLA,

regardless of the theory of liability.” *Hill*, 2022 WL 557823 at *8. So whether a plaintiff seeks to show that a product was defective or unreasonably dangerous, they must identify a specific defect or condition that proximately caused their injuries. This showing may be made with either direct or circumstantial evidence. *Id.*

The central issue in this case remains causation, specifically, whether Plaintiffs have adduced either direct or circumstantial evidence that a specific defect in the vehicle proximately caused Plaintiffs’ injuries. Plaintiffs must show that a genuine issue of material fact exists as to specific defect in order to survive summary judgment.

Initially, it appears to the Court that Plaintiffs disclaimed reliance on Kress for proof of specific defect. Plaintiffs stated:

Dr. Kress does not purport to opine as to a specific defect in the design of Kia’s electronic throttle control system or cruise control system.” Instead, he applied his vast experience in human factors and biomechanical analysis to rule out driver error as the cause of the event.

[Doc. 320 at 2] (emphasis original). Similarly, Kress testified: “I did not intend on identifying the exact reason or explanation as to why this occurred.” [Doc. 317-11 at 222]. He explained that the nature of his opinion was not to say that a particular electronic fault was the causal defect in the vehicle. [*Id.* at 223]. “I do believe it’s vehicle related and electronic . . . but I don’t know the specific, whereas I do recognize that other experts believe and have identified what they believe is the specific source of the cross-talk” or EMI. [*Id.* at 223]. It is difficult to imagine a more straightforward disavowal.

As to Loudon, his evidence of causation hinges on the excluded testimony of Sero and Bloch. Plaintiffs explained that Kia “misunderstands Mr. Loudon’s role; he was not tasked with replicating a defect, but to compare the characteristics of a cruise-control induced acceleration in a 2008 Kia Optima with the characteristics of an accelerator pedal-induced acceleration in a 2008

Kia Optima.” [Doc. 322 at 3]. Plaintiffs represented that “[i]t is the role of Plaintiffs’ other experts Samuel Sero and Byron Bloch to describe *how* the cruise control design can cause unintended throttle opening.” [*Id.* at 5] (emphasis added). Similarly, the Loudon report explains the scope of his engagement: “I have been asked to provide my analysis regarding the *effect* of the failure of the ETC (electronic throttle control system) and the cruise control subsystem of the ETC.” [Doc. 288-1] (emphasis added). Elsewhere, however, Plaintiffs say that specific causation is predicated in part on “the testimony of Plaintiffs’ expert Steven Loudon.” [Doc. 323 at 2].

Reconciling these statements, Loudon’s role was to provide evidence that Bloch and Sero’s causation theory actually manifested on the day of the crash. Loudon does not claim to show that an errant signal from the cruise control system *can* cause unintended acceleration. Rather, assuming such a scenario is possible, he shows that (i) the cruise control system was not designed to mitigate the risks that Bloch and Sero identified, and (ii) the engine signature of the vehicle points towards cruise control acceleration. His opinions about the design of the cruise control system relate not to a specific, causal defect, but to failure paths. Without the excluded opinions of Sero and Bloch, then, Loudon does not have a complete theory of causation.

The Court continues to believe that Plaintiffs waived and/or forfeited reliance on Kress for evidence of specific defect. As will be seen, Loudon’s circumstantial evidence that the cruise control system caused the vehicle to accelerate presupposes that such a scenario is possible. Without the excluded testimony of Sero and Bloch, there is a gap in Plaintiffs’ causation theory that neither Kress nor Loudon can fill. Nonetheless, at the direction of the Sixth Circuit, the Court will resolve both motions to exclude.

To give context to the *Daubert* analysis, Plaintiffs identify six theories or pieces of evidence that they contend are circumstantial evidence that Ms. Parks' acceleration was caused by a malfunction of the cruise control:

- There were nine DTC P0564 events in the vehicle's history identifying a stuck Resume/Accelerate ("Res/Accel") switch.
- The accelerator pedal in the Parks vehicle was in the neutral (not depressed) position at the time of the crash.
- The digital signature of a cruise control induced acceleration, established through the testing of Steven Loudon, is consistent with the signature of the Parks vehicle.
- Braking effectiveness is dramatically reduced as the vacuum assist is depleted after only a few pumps of the brakes during a wide open throttle condition.
- From a human factors perspective, an unintended acceleration event with a duration of over 30 seconds and over a half-mile distance is highly unlikely to be the result of driver error or pedal misapplication.
- Eyewitness testimony indicates that Ms. Parks was controlling her car in a rational manner and her statements at the scene indicate she could not stop the vehicle.

[Doc. 325 at 15-16]. Defendants dispute many of these factual contentions and argue they do not establish the existence of a specific, causal defect in the vehicle.

III. STANDARD OF REVIEW FOR DAUBERT MOTIONS

Before a witness can give an expert opinion, their testimony must meet the requirements of Federal Rule of Evidence 702:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. The Court acts as a “gatekeeper” of evidence that fails to meet this standard. *Daubert v. Merrill Dow Pharms., Inc.*, 509 U.S. 579 (1993); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). Yet the Rule 702 inquiry is “a flexible one,” *Daubert*, 509 U.S. at 594, and “rejection of expert testimony is the exception, rather than the rule,” *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 530 (6th Cir. 2008). “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.” *Daubert*, 509 U.S. at 596; *see also United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1078 (5th Cir. 1996) (“[T]he trial Court’s role as a gatekeeper is not intended to serve as a replacement for the adversary system.”).

As the Sixth Circuit has explained, a proposed expert’s opinion is admissible under Rule 702 if it satisfies three requirements: (1) the witness is qualified by knowledge, skill, experience, training, or education; (2) the testimony is relevant; and (3) the testimony is reliable. *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 529. Testimony is relevant if it relates to a fact at issue and helps the jury determine that fact. Fed. R. Evid. 401; *Navarro v. Proctor & Gamble Co.*, 501 F. Supp. 3d 482, 489 (S.D. Ohio 2020). Testimony is reliable if it is based on “something ‘more than subjective belief or unsupported speculation.’” *Id.* (citing *Daubert*, 509 U.S. at 590).

IV. MOTION TO EXCLUDE TESTIMONY OF STEVEN LOUDON

Kia challenges Loudon’s opinions regarding (1) the cruise control system, (2) the lack of a system-level Failure Modes and Effects Analysis (“FMEA”), (3) the lack of a brake override

system, and (4) the accelerator pedal assembly. These opinions and Kia's objections will be discussed in turn.

a. Cruise Control Opinions

i. Loudon's Report

Loudon's cruise control opinions relate to (1) the single wire design of the cruise control system, (2) the design and timing of the diagnostic codes, and (3) his testing of an exemplar 2008 Kia Optima.

First, Loudon opines that based on his review of the design of the wiring harness, all the wires for the cruise control switch go through a clock spring coil. [Doc. 288-1 at 11]. Signals to set, resume, accelerate, or cancel cruise control flow through a single wire. [*Id.*]. He opines that this creates a single point of failure for a major design element of the vehicle safety system. [*Id.*]. A single point of failure is essentially a design that allows one malfunction or error to cause a larger system to stop working. Loudon explains that a single point of failure should never lead to a dangerous situation. [*Id.*]. According to Loudon, the single wire design also makes it harder to develop diagnostics that can adequately distinguish a failure from a driver's intentional use of the cruise control buttons. [*Id.* at 12].

Second, Loudon discusses the 2008 Kia Optima's Diagnostic Trouble Codes ("DTCs"). One DTC is P0564 – Cruise Control Multi-Function Input "A" Circuit. [Doc. 288-1. at 13]. This code is not displayed on the Malfunction Indicator Lamp ("MIL") on the dash of the vehicle. [*Id.* at 13]. The data from Ms. Parks' vehicle shows that this specific DTC was for a stuck Res/Accel button. [Doc. 317-10 at 269]. According to an ALLDATA publication on which Loudon relied, it takes the system 61 seconds to detect a stuck Set/Coast or Res/Accel switch. [Doc. 288-1 at 13].

Based on the foregoing, Loudon concludes that the relevant DTC takes too long to be detected and the driver is not adequately informed that a fault has been detected. [Doc. 288-1 at 14]. He concludes that this lack of information can result in an unintended acceleration and the existence of vehicles with the same fault being undetected. [*Id.*]. He notes that a report of historical DTCs for Ms. Parks' vehicle shows the DTC P0564 was recorded on six occasions prior to the crash. [*Id.* at 14-15]. He also notes that the radio on Ms. Parks' vehicle was replaced, but the wiring harness does not appear to have been checked. [*Id.* at 15]. This is significant to Mr. Loudon because the wiring for the radio buttons on the steering wheel is contained in the same clock spring coil that carries the cruise control switch wiring. [*Id.*]. He concludes that "more robust and timely diagnostics could have been developed that would have mitigated failures which result in unintended acceleration like the accident that occurred with Mrs. Parks' 2008 Kia Optima." [*Id.* at 15-16]. He does not say what failures could have been mitigated or explain how the cruise control system can cause unintended acceleration.

Third, Loudon discusses his testing of an exemplar 2008 Kia Optima. "The testing was conducted to determine the state of vehicle parameters when the vehicle's velocity reached 92 miles per hour (MPH) on the vehicle's dash speedometer while accelerating using either a wide-open throttle or the cruise control's resume/accel function." [Doc. 288-1 at 19]. Loudon tested how the vehicle behaved during a wide open throttle application from a city driving speed of 25 mph, and from the same speed with the cruise control's Res/Accel function activated. [*Id.*]. He observed data from the dash and used a Vector CANalyzer to log vehicle and CAN (Controller Area Network) communication traffic. [*Id.* at 16].

In the first scenario, "a wide-open throttle is conducted from a city driving speed of 25 mph to a final velocity on the vehicle's dashboard speedometer of approximately 92 mph." [*Id.* at 19].

Loudon reports that the tachometer on the dash and the CAN data both indicated an engine speed of well over 5,000 rpm and “usually” nearly 6,000 rpm in all runs. [*Id.* at 20]. In what appears to be an example run, Loudon estimates that 21.7 seconds elapsed between when the accelerator was pressed and when it was released, and that the vehicle travelled 2090 feet or roughly 0.4 miles. [*Id.* at 21].

In the cruise control scenario, Loudon accelerated until the vehicle reached 25 mph, then “simulate[d] an inadvertent press of the resume/accel button on the dash,” using cruise control to allow the vehicle to accelerate to roughly 92 mph. [Doc. 288-1 at 22]. In that scenario, the vehicle’s engine speed on the dashboard tachometer was around 4,200 rpm and the CAN bus data indicated an engine speed of 4,119 rpm. [*Id.*]. In all of those runs, the engine speed was between 4,000 and 4,300 rpm. [*Id.*]. Loudon estimates that 33.6 seconds elapsed between when cruise control was resumed to when it was disengaged, and the vehicle travelled 3,059 feet or roughly 0.58 miles. [*Id.*].

From these tests, Loudon concludes that the engine signature of the accident is most consistent with a cruise control-induced acceleration. [Doc. 288-1 at 24]. According to the NHTSA crash report for the subject incident, the tachometer reading was approximately 4,300 rpm and the speedometer reading was approximately 92 mph. [Doc. 204-5 at 15]. Loudon opines that based on this digital footprint, comparing the two scenarios tested on the exemplar, “it is clear that this accident was much more likely caused by the cruise control system engaging the resume/accel function and accelerating continuously until the vehicle struck another vehicle.” [Doc. 288-1 at 25].

ii. Positions of the Parties

Defendants challenge several aspects of Loudon’s cruise control opinions as irrelevant and

inadmissible. First, Kia argues that Loudon’s testing did not evaluate a malfunction or defect of the cruise control system, but only compared the engine signatures from functioning acceleration and functioning cruise control systems. [Doc. 312 at 2; Doc. 311 at 3]. So his test results show nothing about how a vehicle with an alleged defect would function. They contend that Loudon did these tests in conditions that differed from those faced by Ms. Parks, i.e. on a flat track, rather than on the hills and curves present at the site of the accident. [Doc. 312 at 2]. More fundamentally, Kia notes that Mr. Loudon could not explain how cruise control could command acceleration on its own and puts forth no evidence at all that there was a failure in the cruise control or clock spring. [Doc. 311 at 4].

Plaintiffs respond that Kia “misunderstands Mr. Loudon’s role; he was not tasked with replicating a defect, but to compare the characteristics of a cruise-control induced acceleration in a 2008 Kia Optima with the characteristics of an accelerator pedal-induced acceleration in a 2008 Kia Optima.” [Doc. 322 at 3]. They argue that Defendant’s criticisms are off the mark because “his purpose was not to replicate a malfunction. It is the role of Plaintiffs’ other experts Samuel Sero and Byron Bloch to describe how the cruise control design can cause unintended throttle opening.” [*Id.* at 5]. Plaintiffs show that Loudon’s report and testimony demonstrate that the engine signature on Ms. Parks’ vehicle is consistent with a cruise-control induced acceleration and not with accelerator pedal induced acceleration. [*Id.*]. Plaintiffs concede that the same digital footprint could be achieved in other ways, through “exquisite modulation of the pedal in a precise on-and-off sequence that is practically impossible.” [Doc. 322 at 4]. They provide no basis for this concession or their assertion that it is impossible. Finally, Plaintiffs note that Kia’s testing was also done on a flat track and the results suggest that adjustments for a slightly uphill grade are minimal. [*Id.* at 6].

iii. Analysis of Cruise Control Opinions

Testimony is relevant if it relates to a fact at issue and helps the jury determine that fact. Fed. R. Evid. 401; *Navarro v. Proctor & Gamble Co.*, 501 F. Supp. 3d 482, 489 (S.D. Ohio 2020). The Court finds that Loudon may testify as to the comparative engine signature results of his testing of the exemplar vehicle. If Plaintiffs can show a specific defect in the cruise control system, Loudon's testimony that the engine signature on Ms. Parks' vehicle more closely matched cruise control induced acceleration would be relevant to determining whether such a defect in fact manifested in Ms. Parks' vehicle on the day of the crash. *See Jahn v. Equine Servs., PSC*, 233 F.3d 382 (6th Cir. 2000) ("In order to be admissible on the issue of causation, an expert's testimony need not eliminate all other possible causes of injury."). Kia's concerns that Loudon failed to test alternative scenarios and did not conduct his tests in an environment similar to the crash site go to the weight of the evidence. *See McClean v. Ontario, LTD.*, 224 F.3d 797, 801 (6th Cir. 2000) ("[M]ere weakness in the factual basis of an expert witness' opinion bear[s] on the weight of the evidence rather than its admissibility.").

Likewise, if other evidence identifies a specific defect related to the cruise control system, Loudon's opinions regarding the single point of failure and design of the diagnostic systems could be relevant to a jury's determination of causation. True, Loudon failed to identify how such a system could be designed to reduce risk. But "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof" are still available to Kia to attack "shaky but admissible evidence." *Daubert*, 509 U.S. at 596. Loudon may offer his opinions that the single wire design created a single point of failure and the diagnostics for the cruise control switch were not optimized to allow detection of malfunctions in the system. Kia's Motion to Exclude [Doc. 311] is therefore **DENIED IN PART** as to these aspects of Loudon's opinion.

However, to the extent Loudon seeks to testify that no other scenario could explain the engine signature other than cruise control-induced acceleration, that opinion will be excluded as unreliable. There is a significant difference between eliminating all other possible causes of an accident and opining that the engine signature on Ms. Parks' vehicle is more consistent with cruise control acceleration.² Loudon was asked whether he did any testing to show that without cruise control, the vehicle could not have simultaneous readings of 92 mph and 4,300 RPMs. [Doc. 288-2 at 77-78]. He testified:

A: It was a test that was absolutely unnecessary because there was no scenario presented that would - - that would explain that scenario other than the cruise control.

Q: Well, how do you know if you didn't test it?

A: Because it wasn't a necessary test to make. The tests that were made were to - - to try to distinguish between the types of failures that might have occurred and that didn't fit the scenarios.

[*Id.*]. In other words, while he determined that Ms. Parks' engine signature more closely matched cruise control acceleration, he did no testing or analysis to rule out the possibility that the same engine signature could be achieved through normal acceleration. Nor did he "rule in" the possibility of unintended acceleration due to a cruise control malfunction because he never examined what type of malfunction could cause unintended acceleration. Loudon's opinion in this regard will be excluded as unreliable.

Loudon's opinion that an errant signal from the cruise control system in Ms. Parks' vehicle caused unintended acceleration on the day of the crash will also be excluded as unreliable. While Kia frames this in terms of relevance, Kia's arguments are more properly analyzed as challenges

² By way of example, when an expert conducts a differential diagnosis, they need not rule out every conceivable cause in order for their opinion to be admissible, but they must "at least consider alternative causes." *Best v. Lowe's Home Ctrs., Inc.*, 563 F.3d 171, 179, 181 (6th Cir. 2009)

to reliability. Loudon's errant-signal causation theory is conclusory. It is not supported by any research, analysis, or testing in his report. He does not discuss errant signals or explain how they could cause unintended acceleration. His report addresses mitigation of potential risks and failures; it does not discuss what those risks and failures might be.

Nor is this theory supported by his testing. Loudon did not attempt to induce a failure in the cruise control system. [Doc. 288-2 at 28]. According to Plaintiffs, this was not his role. [Doc. 322 at 3]. He did not look at the operation of the cruise control on Ms. Parks' vehicle. [Doc. 288-2 at 178]. He never checked any of the cruise control switch functions on the vehicle either electrically or mechanically. [*Id.*]. Indeed, Loudon never inspected Ms. Parks' vehicle at all. [*Id.* at 159].

Loudon's deposition testimony demonstrates the absence of a factual basis for his opinion that an unidentified errant signal caused Ms. Parks' vehicle to accelerate on the day of the crash. Loudon was asked how a cruise control system could spontaneously command acceleration on its own and could not say:

Q: Now tell me how the cruise control system could spontaneously generate the voltages within the ranges for the durations necessary, through the transitions necessary, at the minimum speed necessary to turn on the cruise control system, set the speed and then spontaneously send an acceleration signal? How would it do that?

A: Well I can't say exactly what circumstances would cause that . . .

[Doc. 288-2 at 53-54]. Loudon went on to explain that "as low probability as it might be," the single wire design is "still a single point of failure" that should have been mitigated. [*Id.*]. What failure could have been avoided is left for the Court to guess. Later, Loudon was asked to walk through the steps required for the cruise control system in Ms. Parks' vehicle to spontaneously command an acceleration to 93 miles per hour. [*Id.* at 56]. Though he agreed with steps outlined

by Kia's expert Eddie Cooper, he did not know if there were others. "I haven't examined the source code for the Kia device to understand all of the scenarios that could result in that." [*Id.* at 56-57].

Asked if there was ever an aberrant signal in Ms. Parks' cruise control, Loudon testified that the historical codes "would certainly point toward . . . the system having trouble." [*Id.* at 47-48]. Loudon testified that the P0564 code was indicative of a problem with the cruise control multifunction switch. [*Id.* at 179]. But he conceded that pressing and holding the Res/Accel button for 61 seconds on the right side of the steering wheel would set the same DTC. [*Id.* at 50-51, 179]. And Loudon never identified what sort of "trouble" the system might be having, much less connected that trouble to unintended acceleration.

He nonetheless testified that he would not conclude that the driver inadvertently pressed a cruise control switch because "other evidence" lines up more with a faulty system, specifically, the fact that Ms. Parks previously brought her car to a mechanic due to a problem with the radio. [Doc. 288-2 at 48]. While he explains that the wiring for the radio switches is contained in the same clock spring coil that carries the cruise control switch wiring, he never explains how a radio malfunction could impact the cruise control system. [Doc. 288-1 at 15]. The radio buttons are also on the opposite side of the steering wheel from the cruise control. He was asked about the possibility that Ms. Parks inadvertently pressed the cruise control button, intending to press buttons related to the radio. [Doc. 288-2 at 49]. He opined that "I just -- I find that a lot less likely." [*Id.*]. The radio replacements occurred in 2010 and 2011, at least four years before the accident. [Doc. 204-5 at 12].

To be reliable, expert testimony must be based on something "more than subjective belief or unsupported speculation." *Daubert*, 509 U.S. at 590. And as Defendants point out, "something doesn't become 'scientific knowledge' just because it's uttered by a scientist." *Daubert v. Merrell*

Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1315-16 (9th Cir. 1995). At the same time, where one person sees speculation, another may see knowledge, “which is why the district court enjoys broad discretion over where to draw the line.” *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 672 (6th Cir. 2010).

Here at least, drawing the line is a simple task. “An expert’s conclusions regarding causation must have an established factual basis and cannot be premised on mere suppositions.” *McLean v. 988011 Ontario, Ltd.*, 224 F.3d 797, 801 (6th Cir. 2000); Fed. R. Evid. 702 (expert testimony must be “based on sufficient facts or data”). Loudon opines as to an “errant signal” he never tested, studied, or even identified. His report does not address how an errant signal could occur or how such a signal could cause unintended acceleration. He never inspected Ms. Parks’ vehicle or her cruise control system to find evidence that this unspecified defect actually existed in Ms. Parks’ vehicle. He never explains how a malfunctioning radio could cause a cruise control malfunction.

For an expert opinion to be admissible, the expert has to connect the dots between the evidence on which he relies and the conclusion he ultimately reaches. “Expert reports must include ‘how’ and ‘why’ the expert reached a particular result, not merely the expert’s conclusory opinions.” *R.C. Olmstead, Inc. v. CU Interface, LLC*, 606 F.3d 262, 271 (6th Cir. 2010) (quoting *Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 742 n. 6 (7th Cir. 1998)). Loudon does not explain how or why an errant signal from the cruise control switch can cause unintended acceleration, even in the abstract. He offers this causation opinion without supporting facts or reasoning.

Because it is not supported by any testing, research, or analysis in his report, Loudon’s opinion that Ms. Parks’ vehicle experienced an errant signal from the cruise control switch on the day of the crash that caused the vehicle to accelerate for a prolonged period of time and caused the

accident is unreliable and will be excluded. Kia's Motion to Exclude [Doc. 311] Loudon's testimony is therefore **GRANTED IN PART** as to his causation opinions, specifically, his opinion that nothing other than cruise control malfunction could explain the engine signature on her vehicle at the time of the crash and that an errant signal caused unintended acceleration in Ms. Parks' vehicle.

b. Design Engineering / FMEA Opinions

Mr. Loudon explains that as part of the engineering design process, engineers use the Design Failure Modes and Effect Analysis ("FMEA") process to determine all possible things that can go wrong with a design and determine how to make a design safe. [Doc. 288-1 at 26]. Loudon says a "system level FMEA" for the 2008 Kia Optima would have been concerned with the design of the entire engine management system. [*Id.* at 28]. If Kia had conducted a proper system level FMEA, Loudon believes it would have determined that the single wire design of the cruise control signals created an unacceptable risk. [*Id.*].

Kia challenges Loudon's FMEA opinion as inadmissible and irrelevant "because he has no evidence that there was a failure in that wiring and no evidence that an FMEA would have found any problem that actually manifested itself on the day of Mrs. Parks' crash." [Doc. 311 at 4]. Loudon opines that if Kia had conducted a system-level FMEA, it would have concluded that "a single signal wire for cruise control through a clock spring coils [sic] had an unacceptable level of risk." [Doc. 288-1 at 28]. But a risk of what? Without a connection between the alleged risk and a malfunction that could cause unintended acceleration, Kia sees this testimony as "purely conceptual" and an "academic critique." [Doc. 311 at 4]. Kia points out that Loudon could not explain how cruise control could command acceleration on its own. [*Id.*]. Kia also argues that

Loudon's testimony makes clear he did not know what a hypothetical FMEA would have or could have revealed. [*Id.*].

Plaintiffs' brief in opposition does not respond to these arguments at all. The only discussion of Loudon's FMEA opinions is a summary of the material in his report. [Doc. 322 at 7-8]. Plaintiffs have waived any opposition to Kia's motion to exclude Loudon's FMEA-related opinions because they failed to make any argument as to the relevance or admissibility of these opinions. The Sixth Circuit has long recognized that "issues adverted to in a perfunctory manner, unaccompanied by some effort at developed argumentation, are deemed waived. It is not sufficient for a party to mention a possible argument in the most skeletal way, leaving the court to put flesh on its bones." *McPherson v. Kelsey*, 125 F.3d 989, 995-96 (6th Cir. 1997) (quoting *Citizens Awareness Network, Inc. v. United States Nuclear Regulatory Comm'n*, 59 F.3d 284, 293-94 (1st Cir. 1995)). Here, the Court cannot determine how or in what way Plaintiffs believe their expert's FMEA opinions are relevant because Plaintiffs have not taken any position on that issue. They have only restated the very opinions that are the subject of Kia's *Daubert* motion.

Loudon's opinion is also speculative and lacks a factual foundation. Loudon opines as to the hypothetical results of an analysis he did not conduct. To be reliable, expert testimony must be "supported by appropriate validation – i.e. 'good grounds,' based on what is known." *Id.* (quoting *Daubert*, 509 U.S. at 590). Loudon testified that he did not undertake any analysis to determine what failure modes or effects would have been revealed by an FMEA that were not already in Kia's development documents. [Doc. 288-2 at 148]. He testified that he did not conduct an FMEA of any kind. [*Id.* at 149]. "[N]othing in his testimony suggests the sort of 'knowledge' on this point that the Rules require – only speculation, which is generally inadmissible." *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 671 (6th Cir. 2010); see *Meemic Ins. Co. v. Hewlett-Packard Co.*, 717 F.

Supp. 2d 752, 767 (E.D. Mich. 2010) (excluding expert opinion that was “based on personal conjecture and speculation” because it would “confuse and mislead, rather than assist, the trier of fact”). Moreover, his report does not explain in any detail what either a component or system-wide FMEA would entail.

Importantly, Loudon does not opine that an FMEA would have revealed a defect that could cause unintended acceleration. Like his cruise control opinions, his FMEA opinion is about identifying an increased risk of failure due to malfunction, *i.e.* the single signal wire design, not an actual malfunction. He testified that he believed an FMEA would have uncovered failure modes related to inadvertent signals on the line through voltage disturbance or electromagnetic crosstalk. [Doc. 288-2 at 147]. But he testified that he did not evaluate either as a possible explanation for the crash. [*Id.* at 156-57]. “Without testing, all [Loudon] has done is identify a hypothesis.” *Buck v. Ford Motor Co.*, 810 F. Supp. 2d 815, 825 (N.D. Ohio 2011).

Plaintiffs waived any position they may have as to the admissibility of Loudon’s FMEA opinions by failing to present that position to the Court. Loudon’s opinions about the results of a hypothetical FMEA are speculative and lack factual foundation. Loudon simply opines about what another party would have discovered, in the past, had it undertaken a process that the Court has very little information about and that Loudon himself did not undertake. Moreover, Loudon’s FMEA opinions have nothing to do with what caused the accident, only whether, assuming there is a defect in the vehicle, Kia could have mitigated the risk of that defect. Accordingly, Kia’s Motion to Exclude [Doc. 311] Loudon’s testimony is **GRANTED IN PART** as to Loudon’s opinion about what an FMEA would have revealed to Kia.³

³ As the Court has already explained, depending on the other evidence presented, Loudon could testify as to his opinions regarding the single point of failure / single wire design.

c. Brake Override Opinions

Loudon's report explains that a properly designed brake override system independently monitors the brake pedal signal and the throttle signal. [Doc. 288-1 at 29]. If the brake signal indicates that the driver is requesting the vehicle to slow down, the independent system will override whatever is causing the throttle to open and close the throttle. [*Id.*]. Looking at an article from Hyundai Motor America and the deposition testimony of Kia's corporate witness, Loudon concludes that Kia's "Smart Pedal" brake throttle override technology could have been reprogrammed into many of their existing vehicles on the road, including Ms. Parks' Kia Optima. [*Id.* at 30].

To demonstrate the benefits of brake override technology, Loudon presents data from his use of the exemplar vehicle. By way of background, the throttle regulates how much air flows to the engine. As the Sixth Circuit explained, when a driver presses the accelerator pedal, a wire signals the engine control module ("ECM") to open the throttle, causing the vehicle to accelerate. [Doc. 351-2 at 4-5]. Pressing the accelerator pedal to the floor causes the throttle to be wide open, while releasing the accelerator causes the vehicle to slow and the throttle closes when the vehicle comes to a complete stop. [*Id.*]. The cruise control, via the Res/Accel button, is the only other feature that directly communicates to open the throttle. [*Id.* at 6].

In the first data set, Loudon accelerated the vehicle to 92 mph using wide open throttle, then braked, allowing the throttle to return to idle. [*Id.*]. With the throttle in the idle position, very little brake force was required to stop the vehicle, at most 5 ft-lbs.⁴ [*Id.* at 31].

In the second data set, he attempted to brake against a wide open throttle, "creating a worst case by pumping the brakes as I try to stop." [*Id.*]. He applied around 50 pounds of brake force,

⁴ In his deposition, Loudon testified that "foot pounds" are a unit of measurement of torque, and that the correct unit should be pounds of force. [Doc. 288-2 at 74].

which was “the maximum brake force I would expect from an elderly woman.” [*Id.*]. This time, he attempted to brake at a much lower speed. [*Id.* at 32]. His reports states that applying 50 pounds of brake pedal pressure, he was “at best able to keep the vehicle speed from rising too fast.” [*Id.* at 32]. Only after applying 150 pounds of brake pedal pressure was he able to reduce the speed of the vehicle. [*Id.* at 32].

From this, Loudon concludes that Kia had the software necessary to implement a software-based brake override system and that such a system would have mitigated a large class of unintended acceleration-inducing ETC failures, including unintended acceleration caused by a failure of the cruise control input system. [*Id.*]. He opines that it is difficult and often impossible to stop a vehicle with an open throttle, especially if the driver pumps the brakes at all. [Doc. 288-1 at 6]. He further opines that had Kia implemented a Brake Override System, Ms. Parks’ “accident would never have happened.” [*Id.*].

Kia challenges Loudon’s opinions as belied by his own demonstrations, which, according to Kia, demonstrate that the 2008 Kia Optima cruise control system does in fact have a Brake Override System. [Doc. 311 at 4]. Kia contends that whether or not the Optima had an additional Brake Override System is of no consequence because there is no evidence that Ms. Parks actually put her foot on the brakes. [*Id.*]. Kia also argues that Loudon never says a Brake Throttle Override would have made any difference. [Doc. 312 at 2].

Plaintiffs respond by summarizing Loudon’s Brake Throttle Override opinions. Contrary to Kia’s contention, Plaintiffs point out that Loudon opined that “[i]f the Parks vehicle had been equipped with the brake override, this accident would never have happened.” [*Id.* at 11; Doc. 288-1 at 6]. They present no other argument as to why Loudon’s brake throttle opinions are admissible.

Loudon testified that when he accelerated the exemplar 2008 Kia Optima, set the cruise control to accelerate the vehicle, and then applied the brakes, the cruise control disengaged – the application of the brakes immediately closed the throttle position to idle. [Doc. 288-2 at 89]. Loudon testified that the brake application turned off the cruise control in that scenario and that the vehicle did exactly what he commanded it to do every time. [*Id.* at 89, 92]. He testified that he was not a human factors expert and could not recall any studies evaluating the ability of individuals to apply brake force and the quantity of brake force they are able to apply. [*Id.* at 67-68]. Asked how he arrived at his estimation that an elderly woman could apply about 50 pounds of brake force, he testified it was a “reasonable expectation,” but could not recall where he got that number. [*Id.* at 70].

An expert opinion “must set forth facts and, in doing so, outline a line of reasoning arising from a logical foundation.” *R.C. Olmstead, Inc.*, 606 F.3d at 271 (quoting *Brainard v. Am. Skandia Life Assur. Corp.*, 432 F.3d 655, 657 (6th Cir. 2005)) (cleaned up). Loudon opines that a software-based brake override system would have mitigated a large class of ETC failures that lead to unintended acceleration. But his report does not set forth the facts he relied on in reaching this conclusion. He relies on a press release from Hyundai for the proposition that brake pedal throttle override capability means that any brake pedal input from the driver will completely override any throttle malfunction. [Doc. 288-1 at 30]. He looks to the deposition of Kia’s corporate representative for proof that this technology could have been put into existing vehicles. [*Id.*]. And then he presents data from his own testing of a 2008 Kia Optima. So far, so good.

The logical chain breaks down here, however, because Loudon’s test data only reveals how the 2008 Kia Optima brake system works under certain conditions. The tests he ran were (1) braking against a wide open throttle after accelerating to 92 mph, and (2) braking against a wide

open throttle at a lower speed, while pumping the brakes. [Doc. 288-1 at 30-31]. He does not explain how this test relates to a brake pedal override. Nothing in the report explains the difference between the system in Ms. Parks' vehicle and Kia's Smart Pedal technology. It does not explain why a software-based brake override system can prevent unintended acceleration while the brake system in Ms. Parks' vehicle could not. It does not identify what ETC failures could occur or how they could cause unintended acceleration. Loudon did not test a vehicle with Smart Pedal technology or compare data from a vehicle with the proposed system to that in the 2008 Kia Optima. He never induced or attempted to induce any failure in the exemplar's brake system, and he never inspected Ms. Parks' brake system. Indeed, he expressly testified that he did not evaluate possible brake issues that could have caused Ms. Parks' crash. [Doc. 288-2 at 156]. His conclusion that the accident "would never have happened" if Ms. Parks' vehicle had a software-based brake override system is not based on his own testing or his analysis of existing evidence or research.

Finally, all of this assumes that Ms. Parks was pressing the brakes before the crash, an important qualification that Loudon's causation opinion ignores. Even assuming a brake throttle override can prevent unintended acceleration in a way that Ms. Parks' vehicle could not, Ms. Parks had to have pressed the brakes for it to have made a difference. So Loudon's opinion that the mere existence of a brake throttle override could have prevented the accident goes too far.

Loudon's report reflects a basis for opinions about how the brakes functioned in the 2008 Kia Optima and opines that a safer system was possible. But his brake-related causation opinions are far broader than the substance of his report and testing. "Expert reports must include 'how' and 'why' the expert reached a particular result, not merely the expert's conclusory opinions." *R.C. Olmstead, Inc.*, 606 F.3d at 271 (quoting *Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 742 n. 6 (7th Cir. 1998)). If there is a factual basis for Loudon's opinion that Ms. Parks' accident would

not have happened with a software-based Brake Override System, Plaintiffs have not pointed to it. Plaintiffs present only the most skeletal argument in defense of Loudon's opinions on this topic. Again, "[a]n expert's conclusions regarding causation must have an established factual basis and cannot be premised on mere suppositions." *McLean*, 224 F.3d at 801. Accordingly, Kia's Motion to Exclude [Doc. 311] is **GRANTED IN PART** as to Loudon's testimony that a software-based Brake Override System would have prevented Ms. Parks' accident.

Loudon may, however, testify as to the results of his testing and his opinions regarding a properly-designed brake override system. While Kia argues this testimony is irrelevant due to the lack of evidence that Ms. Parks ever put her foot on the brakes, that is a disputed issue. The Court notes, however, that his conclusions in this regard do not relate to what actually caused the acceleration at issue, only whether, assuming it was caused by a defect in the vehicle, it could have been prevented. Kia's Motion [Doc. 311] is **DENIED IN PART** as to these aspects of his testimony.

d. Accelerator Pedal Opinions – Rebuttal Report

Loudon's rebuttal report addresses defense expert James Walker's opinion on the position of the accelerator pedal assembly. [Doc. 288-3]. Loudon explains that the accelerator pedal assembly is a device that includes movable and non-movable parts. [*Id.*]. "When in the idle position, the top part of the moveable assembly has an approximately 1/2" gap." [*Id.*]. Loudon references photographs in which an exemplar pedal is in the idle position (below, left) and fully depressed position (below right). [*Id.*].

Loudon opines: “Based on an analysis of this evidence, I can only conclude that the pedal was clearly stuck in the idle position and not, as Mr. Walker asserts, in the depressed position.” [*Id.* at 5]. Loudon explains that the electrical measurements and photographic evidence show that “this is the only conclusion one could possible [sic] make.” [*Id.*].

Kia argues that Loudon’s accelerator pedal opinions are inadmissible. Kia notes that it is undisputed that the accelerator pedal sent signals after the crash that it was at idle. [*Id.*]. But according to Kia’s expert, Eldon Leaphart, that is because the accelerator pedal base is cracked and out of position, so that even though the pedal itself is pressed all the way down, the readings are at “idle” because the base has rotated relative to the pedal. [*Id.*]. Kia also argues that Loudon had no idea how badly the base was mispositioned, did not know the details of the damage, and never looked at the pedal or the base. [*Id.*]. In his deposition, Loudon testified that he believed the accelerator pedal base in Ms. Parks’ vehicle was damaged during the crash, but he did not know how much it was out of place. [Doc. 288-2 at 63-64]. He knew it was cracked, but not where. [*Id.* at 64].

Plaintiffs did not respond in opposition to this argument, believing that “[t]he Kia Defendants do not challenge Mr. Loudon’s opinions that (1) the accelerator pedal in the Parks vehicle was in the idle position at the time of the crash.” [Doc. 322 at 2]. To the contrary, Kia argued that “Mr. Loudon’s rebuttal establishes only that the assembly is reading idle now, not that it was reading idle at the time of the crash.” [Doc. 311 at 5]. Perhaps because of this, Plaintiffs do not discuss Loudon’s accelerator pedal opinions in their response brief. Plaintiffs have therefore waived any opposition they may have to the exclusion of this evidence.

Substantively, Loudon’s opinion is unreliable because it ignores readily available evidence and is not based on sound methodology. Initially, Kia’s argument that Loudon’s opinion is

contradicted by another expert is no basis for exclusion. “[C]ompeting expert opinions present the ‘classic battle of the experts’ and it is up to a jury to evaluate what weight and credibility each expert opinion deserves.” *Phillips v. Cohen*, 400 F.3d 388, 399 (6th Cir. 2005) (quoting *Cadmus v. Aetna Cas. & Surety Co.*, 1996 WL 652769 (6th Cir. Nov. 7, 1996) (cleaned up)). The question is not whether Loudon’s opinion is correct, but whether it rests on a reliable foundation. *In re Scrap Metal Antitrust Litigation*, 527 F.3d 517, 529-530 (6th Cir. 2008).

That question can only be answered in the negative. Loudon’s opinion about the position of the accelerator pedal – the ½ inch gap – is not based on sound methodology. Knowing the accelerator pedal assembly was damaged in Ms. Parks’ vehicle, Loudon apparently just assumed he could compare it to an undamaged exemplar and draw the same inference from the ½ inch gap. He admitted he knew it was cracked, but did not know where and did not know how much it was out of place. Without knowledge of the damage, he could not have accounted for that damage in reaching his conclusion that the assembly position shows it was not depressed pre-crash. Drawing the same inference from a damaged and undamaged object, without explanation or justification, is not sound scientific methodology. The burden is on Plaintiffs to show that Loudon’s methodology was sound and his opinions based on sufficient facts and data. They have not carried that burden and Kia’s Motion to Exclude [Doc. 311] will be **GRANTED IN PART** as to Loudon’s opinions regarding the pre-crash position of the accelerator pedal assembly.

V. MOTION TO EXCLUDE TESTIMONY OF TYLER KRESS

a. Kress Report

Dr. Tyler Kress describes his work as largely “in the areas of engineering science/design human factors, accident causation, and product safety management.” [Doc. 317-3 at 4]. He evaluated this matter “with respect to human factors, engineering safety, engineering science &

mechanics, vehicle design, and biomedical engineering.” [*Id.* at 11]. His report indicates he has reviewed hundreds of photos, videos, deposition transcripts, articles, and other materials in the preparation of his report. [*Id.* at 4-11]. In addition, he inspected Ms. Parks’ Kia on at least five occasions. [*Id.* at 11].

First, Dr. Kress discusses the driver’s expected reaction time to “an unexpected vehicle response,” e.g. when the driver inadvertently presses the gas pedal rather than the brake. [Doc. 317-3 at 11]. Based on his review of literature and reports concerning human factors and sudden unintended acceleration,⁵ Kress opines that there is no in-vehicle physical evidence associated with the accident that would confirm pedal misapplication. [*Id.* at 12, 25]. He opines that Ms. Parks’ injuries, the damage to the lower instrument panel, and the condition of the brake and accelerator pedals are consistent with her right foot being on or off the brake pedal prior to impact. [*Id.* at 12]. Kress testified that from a biomechanical standpoint, it could be “either way.” [Doc. 317-11 at 295-96]. Given the evidence that Ms. Parks implemented collision avoidance driver input and the engine signature at the time of the collision, Kress nonetheless opines that the accident is “consistent with an electronic vehicle malfunction, and specifically speeds and engine responses consistent with unintended cruise control vehicle acceleration.” [Doc. 317-3 at 12, 25].

Next, Kress discusses the possibility that a negative voltage spike in the car’s electrical supply could lead to SUA. [*Id.* 12-16]. He concludes that “the incident is more likely than not a result of a low voltage signal, and that can be from a large negative voltage spike . . . or not necessarily a ‘fault’ of the power control unit but an allowable signal/situation without user input (e.g. the cruise control only needs an allowable low voltage signal).” [*Id.* at 17]. He opines that “it

⁵ Dr. Kress refers to sudden unintended acceleration (“SUA”) throughout his report and deposition. The Court makes no finding as to the accuracy or applicability of this terminology, but for clarity, will use it in discussing Kress’s testimony.

is more likely than not that a too low voltage reading was the failure path following the initiating event.” [*Id.*]. He apparently changed his opinion in his deposition, however, testifying that he did not believe a negative voltage spike caused the accident. [Doc. 309-3 at 17].

Kress’s report goes on to discuss the DTCs in Ms. Parks’ vehicle, the position of the accelerator pedal and the throttle and the lack of brake throttle override in the vehicle. His report then recites at length the statements and testimony of various witnesses, including Ms. Northcutt, Ms. Parks’ children, and others. He concludes that this “circumstantial evidence” suggests that Ms. Parks did not inadvertently press the accelerator instead of the brake. [Doc. 317-3 at 19-24].

b. Positions of the Parties

The Kia Defendants seek the exclusion of Kress’s testimony in its entirety. First, they argue that he is not an expert in electrical engineering or electronics, and thus is not qualified to offer opinions about unintended acceleration caused by an unspecified electrical defect. [Doc. 310 at 8]. Second, they argue that his opinions concerning EMI and voltage drops are not reliable because they are not based on reliable methods or generally accepted scientific principles. Next, Kia contends that Kress’s opinion that Ms. Parks did not make a pedal error at the time of the crash is unreliable because he performed no independent analysis and did not validate his opinions through his own human factors research or by relying on generally accepted human factors literature.

In response, Plaintiffs first explain that “Dr. Kress does not purport to opine as to a specific defect in the design of Kia’s electronic throttle control system or cruise control system.” [Doc. 320 at 2]. Rather, “he applied his vast experience in human factors and biomechanical analysis to rule out driver error as the cause of the event.” [*Id.*] (emphasis original). If driver error is ruled out, Plaintiffs say the only remaining inference is that an unsafe condition in the car caused the event.

According to Plaintiffs, “Dr. Kress made it crystal clear that he was relying upon other experts to describe that condition.” [*Id.*].

Plaintiffs contend that Dr. Kress is qualified to give an expert opinion in this case, but do not specify what matters he is qualified to opine on. [Doc. 321 at 7-8]. Plaintiffs dispute Kia’s implication that Kress was not involved in inspections of the vehicle, showing that he participated in five substantive inspections and performed reconstruction analysis. [*Id.* at 9-11]. They also argue that he relied on appropriate human factors literature. Next, Plaintiffs argue that Kress’s testimony is reliable, because he relied on sufficient facts and methodology, applied to the facts of the case. [*Id.* at 9-11]. They argue his testimony will assist the jury in understanding the absence of physical evidence for the theory of pedal misapplication. Finally, Plaintiffs recite Kress’s summary of witness statements at length. [*Id.* at 16-20]. Plaintiffs do not mention Kress’s negative voltage spike theory or his deposition opinion that the crash might have been caused by EMI. They do not dispute that Kress disclaimed his negative voltage spike theory in his deposition.

c. Electrical Engineering and Electrical Opinions

i. Qualification to Render Opinions

Dr. Tyler Kress’s report asserts that he is qualified to render the opinions therein based on his education and experience in engineering science & mechanics, biomedical and human factors engineering, accident reconstruction, safety, and vehicular accidents. [Doc. 317-3 at 3-4]. He holds a B.S. and M.S. in Engineering Science and Mechanics, with an emphasis on design and a major concentration of biomedical engineering for both, as well as minors in mathematics and engineering management. [Doc. 309-4 at 2]. He has a Ph.D. in Industrial Engineering with a focus in human factors. [*Id.*]. He has over 30 years of work experience which “includes extensive research, teaching and consultation involving applying safety, engineering and medical

methodologies in understanding and advancing knowledge areas such as injury causation, accident analysis, vehicular safety and design, product liability, and occupational disorders.” [Id.]. He has over 100 publications and presentations related to engineering and safety issues involving biomechanical engineering, human factors, product safety, and accident reconstruction. [Id.]. He is a board certified Industrial Ergonomist and a Certified XL Tribometrist. [Doc. 317-3 at 3].

Dr. Kress taught engineering and safety at The University of Tennessee for about 30 years, and serves as an adjunct faculty in engineering at Virginia Tech. [Doc. 309-3 at 3-4]. He has taught courses such as Human Factors Engineering; Industrial Safety; Safety Principles and Practices; Human Factors Engineering and Ergonomics; Human Factors and Product Safety Engineering; Advanced Human Factors Engineering Methodology; Problems and Research in Accident Prevention; Safety Instrumentation; and Advanced Topics in Human Factors, Safety, and Biomechanical Engineering. [Doc. 317-3 at 4].

Kress has conducted research on behalf of major automotive and motorcycle manufacturers, the boating industry, sports equipment manufacturers, the Occupational Safety and Health Administration, and other industries, organizations, and corporations. [Id.]. Kress is currently the principal consultant in his practice, BEST Engineering (Biomechanical, Ergonomic & Safety Technologies). He describes his work as largely “in the areas of engineering science/design human factors, accident causation, and product safety management.” [Id.].

Kia contends that Dr. Kress is not qualified as an expert in electrical engineering or electronics and thus is not qualified to offer an opinion as to an electrical defect in the subject vehicle. [Doc. 310 at 8]. Specifically, Kia challenges Kress’s qualification to testify about unintended acceleration caused by an unspecified electrical or electronic defect. [Id.]. Whether an expert is qualified does not depend on “the qualifications of a witness in the abstract, but whether

those qualifications provide a foundation for a witness to answer a specific question.” *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994). “The party offering the expert’s testimony has the burden to prove by a preponderance of the evidence that the expert is qualified.” *U.S. ex rel. Tenn. Valley Auth. v. 1.72 Acres of Land in Tennessee*, 821 F.3d 742, 749 (6th Cir. 2016).

Plaintiffs broadly contend that Kress is qualified to render the opinions stated in his report and deposition, but do not actually assert that he is qualified to render opinions regarding electrical engineering or electronics. They recite his credentials at length, but fail to explain how these credentials qualify him to render opinions regarding electrical engineering or electronics. [Doc. 321 at 7]. To the contrary, Plaintiffs explain that “Dr. Kress focused the opinions in his report as stated above from human factors[,] biomechanics[,] and product use and safety.” [*Id.* at 5]. According to Plaintiffs, his “analysis of electrical and electronic issues” was rendered in response to questioning by defense counsel during his deposition. [*Id.*]. Plaintiffs highlight his qualifications in the areas of engineering science and mechanics, accident reconstruction, and human factors, [*id.* at 7-9], but state that Kress should nonetheless be allowed to express “all of his opinions.” [*Id.* at 5].

Plaintiffs have not carried their burden of proving by a “preponderance of proof” that Kress is qualified to render opinions regarding electronics or electrical engineering. *Pride v. BIC Corp.*, 218 F.3d 566, 578 (6th Cir. 2000) (“[A] party proffering expert testimony must show by a ‘preponderance of proof’ that the expert whose testimony is being offered is qualified . . .” (*quoting Daubert*, 509 U.S. at 592)). Beyond a broad statement that he is qualified as an expert in “these matters” and should be permitted to testify as to “all of his opinions,” it is not clear that Plaintiffs assert that Kress is in fact an expert in electronics or electrical engineering. Either way, they make no effort to connect his credentials to these areas of expertise. They do not even mention his

opinions regarding EMI or negative voltage spikes as a defect in the vehicle or cause of the accident.

Upon review of his curriculum vitae, the Court agrees that Dr. Kress is not qualified to render opinions as to electronics or electrical engineering, specifically, his deposition and report opinions that the accident was likely caused by EMI and/or negative voltage spikes. Kress does not have a degree in either mechanical engineering or electrical engineering. [Doc. 309-2 at 5]. He is not a registered professional engineer in any state and does not hold any professorships in electronics or electrical engineering. [*Id.* at 7, 8]. Rather, his career has focused on “engineering science/design human factors, accident causation, and product safety management.” [Doc. 317-3 at 4]. While Dr. Kress clearly has many years of experience in other areas, nothing in his report or CV indicate that he is qualified to opine as to electrical engineering or the electronic functioning of the subject vehicle. Kia’s motion to exclude will be **GRANTED** in this regard.

ii. Reliability of Electrical Engineering and Electronics Opinions

Even if Kress were qualified to render opinions regarding electrical engineering or electronics, his EMI and negative voltage spike opinions would be inadmissible. First, Plaintiffs’ brief in opposition does not respond to Kia’s reliability challenge. It simply asserts that Kress should be allowed to express all his opinions, without mentioning either theory specifically.⁶ “[W]hen a party fails to respond to an argument, that argument is generally deemed to be unopposed and the proposition conceded.” *Knox Trailers, Inc. v. Clark*, 2022 WL 4372350, *7 (E.D. Tenn. Sept. 21, 2022) (quoting *AK Behav. Health Sys., Inc.*, 382 F. Supp. 3d 772, 774 (M.D.

⁶ They do dispute Defendant’s contention that Kress was merely a photographer or passive observer during inspections of the Parks vehicle, but not in the context of his EMI or negative voltage opinions.

Tenn. 2019)). In addition, Plaintiffs do not appear to rely on Kress's opinions in this regard in their opposition to summary judgment.

Kress also explicitly stated he did not believe a negative voltage spike caused the crash:

Q: Dr. Kress, is it your opinion that there was a negative voltage spike that caused Ms. Parks' unintended acceleration on December 31, 2015?

A: No.

[Doc. 309-3 at 17]. Similarly, Kress's report never mentions EMI and certainly does not say that it caused unintended acceleration in the Parks vehicle.^{7 8} It is not even clear that he intends to offer an EMI opinion, as he explained it was his opinion from "an overall perspective" but that identifying, for example, the clock spring as the source of EMI was "not the nature of what I did in evaluating this case." [*Id.* at 16].

Finally, Kress did not conduct any EMI or negative voltage drop testing on any 2008 Kia Optima. [Doc. 309-2 at 14, 15, 18]. Nothing in Kress's report indicates he has previously tested, researched, or written about SUA at all, much less SUA caused by negative voltage spikes or EMI.⁹ *See Newell Rubbermaid, Inc. v. Raymond Corp.*, 676 F.3d 521, 527 (6th Cir. 2012) ("In addition, if a purported expert's opinion was prepared solely for litigation, that may also be considered a basis for exclusion."). He testified that he has not written or published any articles on SUA or driver pedal misapplication. [Doc. 309-2 at 4, 9]. Kress's detailed and technical discussion of how

⁷ He does not, for example, use the words/phrases "EMI," "electromagnetic interference," or "cross talk."

⁸ Federal Rule of Civil Procedure 26(a)(2)(B) requires that an individual retained to provide expert testimony provide a signed written report that must contain, *inter alia*, "(i) a complete statement of all opinions the witness will express and the basis and reasons for them." Fed. R. Civ. P. "If a party fails to provide information . . . as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless." Fed. R. Civ. P. 37(c)(1).

⁹ Kress indicated he had written a paper dealing with "overall product safety management" in the automotive industry, but this is far from the degree of specialized research that might support a finding of reliability as to the specific electrical/electrical engineering opinions in his report. [Doc. 309-2 at 4].

an alternate cause is possible, i.e. how an SUA could occur for reasons other than a mechanically stuck accelerator pedal or operator error, refers to minimal supporting citation and only one article that appears to have been published.¹⁰ Weighing the *Daubert* factors, the Court finds that Kress's opinions that EMI or a negative voltage spike likely caused unintended acceleration in the Parks vehicle to be unreliable.

Kress's electronics / electrical engineering opinions will be excluded because he is not qualified as an expert in a relevant field and because his opinions are unreliable. Plaintiffs also conceded the issue by failing to raise any argument in support of the admissibility of these opinions. Accordingly, Kia's motion to exclude will be **GRANTED IN PART** as to Dr. Kress's electrical engineering / electronics opinions, including his opinion that a negative voltage spike or EMI was the likely cause of Ms. Parks' accident.

d. Pedal Misapplication Opinions

Kia argues that Dr. Kress's opinion that Ms. Parks did not make a pedal error is unreliable because he performed no independent analysis to support his conclusions and failed to validate his opinion through his own human factors research or by relying on generally accepted human factors literature. [Doc. 310 at 12-14]. Plaintiffs argue that Kress conducted multiple vehicle inspections, participated in testing and removal of various vehicle parts, and took video, numerous photographs, and 3D scan data.¹¹ The Court finds Plaintiffs have carried their burden of demonstrating the reliability of Kress's pedal misapplication opinions.

¹⁰ As Judge Mattice previously explained, the published article Kress cites does "not purport to show that EMI can cause a voltage fluctuation that would result in a *sustained* unintended acceleration." [Doc. 341 at 16-17] (emphasis added).

¹¹ There is some discrepancy about who performed the 3-D scan. Kress's report claims he "took . . . 3-D laser scan data," [Doc. 317-3 at 11], but in his deposition, he stated that the 3D reconstruction materials came from Mr. Walker's file [Doc. 317-11 at 23].

Kia's first argument is that Kress's opinion is unreliable because he performed no independent analysis to support his pedal misapplication opinions. [Doc. 310 at 12]. Kia is correct that Kress's failure to perform any scientific testing to validate his pedal misapplication opinions, such as a surrogate study,¹² weighs against admissibility. Kress did not calculate the accident's principal direction or Delta V because he did not believe this was necessary or disputed. [Doc. 309-2 at 9]. He performed an accident reconstruction analysis "to an extent," explaining that his work included "evaluating it from an accident reconstruction standpoint." [*Id.*].

Still, the Sixth Circuit has cautioned that the *Daubert* factors "are not dispositive in every case" and should be applied only "where they are a reasonable measure of the reliability of expert testimony." *In re Scrap Metal Litigation*, 527 F.3d 517, 529 (6th Cir. 2008) (quoting *Gross v. Comm'r*, 272 F.3d 333, 339 (6th Cir. 2001)). Here, the Court finds there is other evidence of reliability that overcomes the lack of testing. Kress collected and analyzed a significant amount of data in forming his human factors and biomechanical opinions. He participated in multiple vehicle inspections, examined Ms. Parks' autopsy report and the nature of her injuries, and examined many aspects of the vehicle and driving conditions. *See Phillips v. Raymond Corp.*, 364 F. Supp. 2d 730, 743 (N.D. Ill. 2005) ("[T]he process of analyzing assembled data while using experience to interpret the data is not illicit; an expert need not actively conduct his or her own tests to have a valid methodology."). To the extent additional or different testing might have been conducted, this goes to the weight of the evidence rather than its reliability.

Yet in many places, Kress's report does not specify what data he drew from his

¹² In another case, Kress explained that surrogate studies are one of the tools employed by biomechanical engineers to understand the interaction between a person and a product. *See Lyons v. Leatt Corp.*, 322 F.R.D. 327, 334 (N.D. Ind. 2017).

investigation, or how he used it to reach certain conclusions.¹³ Kress represents that he “extensively evaluated the evidence in this matter from a human factors and biomechanical standpoint (human/machine/environment) and considered the engineering inputs and anatomical outputs (medical records).” [Doc. 309-1 at 12]. As best the Court can tell, this is Kress’s methodology – examining and evaluating various measurements and materials based on his education and experience. While a somewhat close call, because his human factors / biomechanical opinions about pedal misapplication appear to be based on ample data and his own inspection and include some explanation of how he analyzed that data, the lack of testing does not render his pedal misapplication opinions unreliable.

Nor has Kia shown that Kress failed to validate his pedal misapplication opinions through his own human factors research or by relying on generally accepted human factors literature. As to his own work, Kress has not written or published any articles on unintended acceleration. [Doc. 309-2 at 4, 9]. But he has written and/or published multiple articles regarding impact testing of human lower legs and given presentations on accident reconstruction calculations, vehicle inspections, and bone fracture patterns. [Doc. 309-4 at 5, 10]. He testified that he relied on his own research in reaching his conclusions regarding, for example, Ms. Parks’ lower leg injuries. [Doc. 317-11 at 291-292]. The record also indicates that at least some of the articles Kress relied on were peer-reviewed and some were published with NHTSA. [*Id.* at 147]. Kia’s expert Dr. Young was the author or co-author of some of the materials. [*Id.*]. And publication “does not

¹³ At least one other court has excluded Kress’s testimony for similar reasons. *See Lyons*, 322 F.R.D. at 335 (“Dr. Kress did not identify any specific measurements, calculations, or analysis showing how or to what extent the Leatt Brace reduced Plaintiff’s range of motion or showing how a limitation in the range of motion affected Plaintiff’s ability to tuck and roll.”).

necessarily correlate with reliability.” *Daubert*, 509 U.S. at 593-94. That some of the relevant materials may not have been published or peer-reviewed is not dispositive.

Finally, Kia takes issue with several broad allegations Kress makes about the state of “the literature” and what “research shows,” which lack any supporting citation. Kress states, for example, that much of the literature regarding unintended acceleration postulates pedal misapplication as the cause. [Doc. 317-3 at 11]. He claims “[t]here is credible literature . . . that indicates such postulations are not based on reliable, sound data or reasonable scientific or engineering deduction.” [Doc. 317-3 at 11-12]. When asked about this “credible literature,” he could not identify any studies or articles by name. [Doc. 317-11 at 191]. His report does not explain why “much of the literature” is supposedly faulty. Kress’s report similarly states that “[r]esearch shows that there is no in-vehicle physical evidence following a SUA incident that would confirm the existence of pedal error by the driver of the vehicle.” [Doc. 317-3 at 12]. In his deposition, he was not able to identify any specific research he relied on in making this claim. [Doc. 317-11 at 231].

Though Kress could not provide any support for his opinions purporting to summarize existing literature on unintended acceleration, Kia’s arguments go to Kress’s credibility – that he was unfamiliar with the literature, could not point to a specific basis for his assessment of it, and drew the wrong conclusions from what he reviewed. The exclusion of expert testimony is the exception, not the rule. Mindful of this guidance, the Court finds that Plaintiffs have carried their burden of demonstrating the reliability of Kress’s pedal misapplication opinions. Kia’s motion to exclude his testimony will be **DENIED IN PART** as to these opinions.

e. Pedal Assembly

Plaintiffs’ response in opposition focuses heavily on Kress’s relatively brief discussion of

voltage readings from the accelerator pedal and the accelerator pedal assembly. Kress notes that there was a ½ inch gap between pedal and base, “showing that the accelerator was not pressed to the floor or entrapped in a ‘floored’ manner.” [Doc. 309-1 at 18]. He states that “it was completely released as if not depressed at all.” [Id.]. Based on his (separate) opinion that Ms. Parks was not depressing the accelerator at the time of the accident and that the vehicle had a nearly wide open throttle at the time of impact, Kress concludes that the accident was caused “by a fault from a sudden acceleration of the vehicle that the driver does not intend.” [Id.].

In his deposition, Kress explained that he measured and examined the accelerator pedal assembly in Ms. Parks’ Kia and compared the measurements to an exemplar. [Doc. 317-11 at 169-170]. He determined that the assembly in Ms. Parks’ vehicle had changed orientation as a result of the crash. [Id.]. Specifically, it “rotated towards the right counterclockwise and then overall left to right.” [Id. at 171]. He acknowledged there was damage to the accelerator pedal assembly. [Id. at 181]. He did not do any testing on the exemplar. [Id. at 117]. He further testified that “when you look at the evidence associated with her body and the interior evidence of the vehicle . . . it could be either way,” that is, Ms. Parks’ foot could have been on or off the brake. [Id. at 295].

According to Kia, Kress’s opinions are misleading because he was comparing an unbroken exemplar to an accelerator pedal assembly whose adjustable polymer mounting bracket was broken in the crash, distorting the relationship between the swing arm and sensor assembly. [Doc. 329 at 5]. The Court agrees that there are several problems with his opinions in this regard.

First, Kress cannot testify as to the significance of voltage readings because as the Court has explained, he is not qualified to render opinions regarding electronics or electrical engineering matters. Regardless, it is undisputed that after the crash, sensors read the accelerator pedal as in the idle position. It is further undisputed that the pedal assembly was damaged during the crash.

The problem is Kress's methodology, or lack thereof. Kress's accelerator pedal opinion suffers from the same defect as that of Steven Loudon. Both compared an unbroken exemplar to a damaged accelerator pedal assembly and based their conclusions that it was not depressed on that comparison. Because the exemplar has a ½ inch gap when in idle position, both experts assume that the ½ inch gap between the pedal and the assembly in the damaged component means that it, too, was in the idle position.

Initially, an expert is not necessary for such an elementary analysis. Any juror can visually compare one ½ inch gap to another. Kress's opinion in this regard does not bring to bear his expertise – he has simply taken two measurements with a measuring tape and noted they are the same. Beyond an explanation of what a ½ inch gap indicates in an exemplar, his opinion about the significance of these measurements will not aid the trier of fact.

More importantly, Kress's methodology is flawed – he apparently assumed without explanation that the positioning of a damaged accelerator pedal assembly could be reliably compared to an unbroken exemplar and the same conclusion drawn. On a very basic level, comparing apples to oranges is not sound scientific methodology. Despite acknowledging the reorientation of the assembly, he fails to account for it in his reasoning, providing no support for his assumption that the two are capable of comparison. Nor did he validate his opinion through testing. Kress's conclusion about the significance of the ½ inch gap in the accelerator position is not based on sound methodology and will not assist the trier of fact in determining any disputed issues. Accordingly, Kia's motion will be **GRANTED IN PART** as to this specific portion of his accelerator pedal opinions.

f. Witness Statements & Testimony

Finally, Kress's report summarizes at great length various witness statements and

deposition testimony, which Plaintiffs likewise recite in their opposition brief. [Doc. 317-3 at 19-24; Doc. 321 at 16-20]. Kia notes that eyewitness testimony is notoriously unreliable, and in any event, there is a video of the crash. [Doc. 329 at 5]. The Court agrees that Kress's summary of the witness testimony and conclusions about what is circumstantial evidence against pedal misapplication is largely irrelevant. Kress can certainly testify that he relied on particular facts, for example, the duration of the acceleration event and any evasive maneuvers taken by Ms. Parks. But in several places, he goes a step further, opining, for example, that Ms. Parks' statement that she could not stop the vehicle "is circumstantial evidence of braking by Ms. Parks." [Doc. 317-3 at 20].

An expert's testimony must be based on his status as an expert, i.e., on the expert's scientific, technical, or other specialized knowledge. When an expert's testimony is instead based on his lay opinion about the facts of the case, "it does not 'assist the jury on a fact that they can decide as well as an expert.'" *McGowan v. Cooper Indus., Inc.*, 863 F.2d 1266, 1272 (6th Cir. 1988). "Helpful opinions do not 'merely tell the jury what result to reach.'" *Youngberg v. McKeough*, 534 F. App'x 471, 479 (6th Cir. 2013) (quoting *McGowan*, 863 F.2d at 1272). "It is not helpful to the jury when expert testimony gives lay testimony interpreting the facts of the case or addressing matters that are equally within the competence of the jurors to understand and decide." *Id.* (cleaned up).

It is for the jury to decide whether Ms. Parks' statements indicate she was braking prior to the crash, not Dr. Kress. While this evidence could certainly inform his opinion as to the nature or cause of the crash, he also interprets the evidence in a way that is wholly unrelated to his biomechanical or human factors expertise. It does not take an expert to decide whether "I just tried to stop," means that the driver tried to apply the brakes. It does not take any specialized or scientific

knowledge for a jury to understand evidence that Ms. Parks was a slow and careful driver, or to apply that evidence in reaching their conclusions. While rejection of expert testimony is the exception rather than the rule, the Court is persuaded that Dr. Kress's lay opinions interpreting testimony and witness statements invade the province of the jury. Because they will not assist the trier of fact, they will be excluded. To be clear, the exclusion of lay testimony does not prevent Dr. Kress from identifying the evidence he relied on or explaining how he relied on it in reaching his expert opinions.

The Court finds that Dr. Kress is not qualified by his skill, education, or experience to render opinions regarding electrical engineering or electronics, specifically, his opinion that EMI or a negative voltage spike caused the accident in question. In the alternative, the Court finds Kress's opinions in this regard unreliable because he did not test them or support them with sufficient, relevant research. Moreover, Plaintiffs failed to present any argument in opposition to Kia's motion to exclude his electronic / electrical engineering opinions and therefore conceded the issue. However, Dr. Kress may opine as to his human factors / pedal misapplication opinions, with the exception of his lay opinions regarding circumstantial evidence of braking. His anticipated testimony about the accelerator pedal assembly will be excluded because it is not based on sound methodology. Accordingly, Kia's Motion to Exclude the Testimony of Dr. Tyler Kress [Doc. 309] will be **GRANTED IN PART** and **DENIED IN PART**.

VI. KIA'S MOTION FOR SUMMARY JUDGMENT

a. Standard of Review

Federal Rule of Civil Procedure 56 instructs the Court to grant summary judgment "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). A party asserting the presence or absence of

genuine issues of material fact must support its position either by “citing to particular parts of materials in the record,” including depositions, documents, affidavits or declarations, stipulations, or other materials, or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56 (c)(1). When ruling on a motion for summary judgment, the Court must view the facts contained in the record and all inferences that can be drawn from those facts in the light most favorable to the nonmoving party. *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); *Nat’l Satellite Sports, Inc. v. Eliadis Inc.*, 253 F.3d 900, 907 (6th Cir. 2001). The Court cannot weigh the evidence, judge the credibility of witnesses, or determine the truth of any matter in dispute. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986).

The moving party bears the initial burden of demonstrating that no genuine issue of material fact exists. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The moving party may discharge this burden either by producing evidence that demonstrates the absence of a genuine issue of material fact or simply “by ‘showing’ – that is, pointing out to the district court – that there is an absence of evidence to support the nonmoving party’s case.” *Id.* at 325. Where the movant has satisfied this burden, the nonmoving party cannot “rest upon its . . . pleadings, but rather must set forth specific facts showing that there is a genuine issue for trial.” *Moldowan v. City of Warren*, 578 F.3d 351, 374 (6th Cir. 2009) (citing *Matsushita*, 475 U.S. at 586; Fed. R. Civ. P. 56).

The nonmoving party must present sufficient probative evidence supporting its claim that disputes over material facts remain and must be resolved by a judge or jury at trial. *Anderson*, 477 U.S. at 248-49 (citing *First Nat’l Bank of Ariz. v. Cities Serv. Co.*, 391 U.S. 253 (1968)); *see also White v. Wyndham Vacation Ownership, Inc.*, 617 F.3d 472, 475-76 (6th Cir. 2010). A mere scintilla of evidence is not enough; there must be evidence from which a jury could reasonably

find in favor of the nonmoving party. *Anderson*, 477 U.S. at 252; *Moldowan*, 578 F.3d at 374. If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to summary judgment. *Celotex*, 477 U.S. at 323.

b. Analysis

Kia moves for summary judgment on the basis that Plaintiffs cannot demonstrate that a specific defect in the 2008 Kia Optima caused the accident. Plaintiffs contend that “a persistent electronic malfunction in the car’s cruise control system – specifically, a chronically *stuck* ‘Resume/Accel’ switch” caused the accident. [Doc. 325 at 2]. Plaintiffs argue that the cruise control multifunction switch, via the Res/Accel function, is the only feature in the car, other than the accelerator pedal, that directly communicates to open the throttle. [*Id.*]. According to Plaintiffs, a stuck cruise control switch can create sudden, unwanted acceleration. [*Id.*].

Complicating the Court’s review of this already complicated case is Plaintiffs’ failure to provide record citations for the overwhelming majority of their factual assertions, including an extended discussion of the cruise control system that is central to their contentions. [Doc. 325 at 7-9].¹⁴ Many other citations are incomplete or simply say “cite” or “Show photo.” [*Id.* at 12, 13, 16, 18, 19]. A properly-supported motion for summary judgment shifts the burden to the non-moving party to demonstrate that there is a genuine issue for trial. *See Celotex*, 477 U.S. at 324. “This burden might not require the nonmoving party to designate facts by citing specific page numbers, but the designated portions of the record must be presented with enough specificity that

¹⁴ Though Kia did not file a statement of material facts, Plaintiffs also submitted a response thereto. [Doc. 326]. The majority of this document is argument, not factual assertion, and much of it is not supported by citation to the record. As Judge Mattice noted, it also constitutes an unauthorized extension of the page limit for responsive briefing.

the district court can readily identify the facts upon which the nonmoving party relies.” *Guarino v. Brookfield Twp. Trustees*, 980 F.2d 399, 405 (6th Cir. 1992) (cleaned up, citation omitted).

Moreover, it is only after fourteen pages of briefing that Plaintiffs identify their evidence regarding proximate causation and specific defect. [Doc. 325 at 15] (“But the question remains: *What caused the Parks UA incident?*”).¹⁵ This list is presented without accompanying argument and again includes no citations to the record. To the extent possible, the Court has pieced together Plaintiffs’ argument regarding each piece of evidence and will address each in turn.

To frame this analysis, it is important to note how Plaintiffs describe the respective roles of their experts in proving their case. Prior to their appeal, Plaintiffs represented to the Court that Sero, Bloch, and Kress were not presented to opine as to a specific defect or dangerous condition that proximately caused the accident:

- “Mr. Sero [] does not purport to say - - that the specific cause of the Parks incident was an identifiable electronic malfunction. That was not his role.” [Doc. 323 at 2].
- “Mr. Bloch is not offering an opinion on narrow, specific causation.” [Doc. 324 at 3]. “[Bloch] does not purport to pinpoint the specific electronic phenomena that caused the unintended acceleration in Mrs. Parks’ vehicle.” [*Id.* at 4-5].
- “Dr. Kress does not purport to opine as to a specific defect in the design of Kia’s electronic throttle control system or cruise control system.” [Doc. 320 at 2].

Rather, Bloch and Sero are presented “to describe how the cruise control design can cause unintended throttle opening.” [Doc. 322 at 5].]. In other words, to establish that Plaintiffs’ main

¹⁵ Plaintiffs also argue that they need not show a “specific defect,” but instead “liability can be predicated upon circumstantial proof.” [Doc. 326 at 3]. As the Sixth Circuit confirmed, Plaintiffs must present either direct or circumstantial evidence of a specific defect in order to survive summary judgment.

causation theory is possible in the abstract. Those opinions have been excluded.¹⁶ Kress was presented to rule out driver error / pedal misapplication, bolstering the inference that a vehicle malfunction caused the crash. [Doc. 320 at 2]. But specific causation, Plaintiffs explain, “is predicated upon other evidence, including the testimony of Plaintiffs’ expert Steven Loudon, the testimony of eyewitnesses, and the condition of the accelerator pedal and throttle in the Parks vehicle.” [Doc. 323 at 2].

That leaves Loudon with the task of identifying a specific defect or unreasonably dangerous condition in the vehicle that proximately caused the accident. Yet Loudon offers no opinion as to how the design of the cruise control system can cause unintended acceleration. Again, Plaintiffs distinguished Loudon’s role from that of Sero and Bloch, whose job it was to describe how cruise control induced unintended acceleration is possible. [Doc. 322 at 5]. In contrast, Loudon’s testimony is presented as “strong circumstantial proof of the cause of Mrs. Parks’ event.” [*Id.*]. Loudon’s single point of failure and cruise control design critiques relate to identifying and mitigating risks of failure. He opines that the cruise control system was not designed to prevent larger failures caused by a single malfunction and argues that the risk of this single point of failure could have and should have been addressed. He opines that if Kia had conducted an FMEA, it would have discovered that the single wire design posed an unacceptable risk. And he compares the engine signature of cruise control induced acceleration to that of accelerator pedal induced acceleration.

What Loudon does not do is identify any defect in the cruise control system that he says could cause unintended acceleration in the 2008 Kia Optima. His excluded opinion that the engine

¹⁶ As Judge Mattice thoroughly explained, Sero and Bloch’s opinions as to how a Kia Optima’s cruise control can theoretically command unintended acceleration are inadmissible. [Doc. 325 at 7-26]; *see also Turpin v. Merrell Dow Pharma., Inc.*, 959 F.2d 1349 (6th Cir. 1992) (expert testimony that a drug “could cause” or its effects are “consistent with causing” birth defects established only “a possibility rather than a probability”).

signature of the Parks vehicle shows that it was caused by an “errant signal” from the cruise control presupposes that such a malfunction could cause unintended acceleration. Similarly, his critique of the cruise control system relates to unspecified potential failures and how to mitigate the risk of those failures. It does not say what those failures are or how, left unchecked, they might cause unintended acceleration. Importantly, Loudon never suggests that the design flaws he sees in the cruise control system could cause unintended acceleration on their own. His design opinions relate to the lack of a failsafe, not a defect that could have been mitigated by a failsafe.¹⁷ Plaintiffs do not appear to argue that, standing alone and without EMI, the design of the cruise control was unreasonably dangerous in a way that could have proximately caused the accident.

In light of their stated roles, it is perhaps unsurprising that neither Loudon nor Kress have admissible opinions about exactly what defective condition in the cruise control system caused the Parks vehicle to accelerate to a nearly wide open throttle on the day of the crash. As will be seen, Plaintiffs have not presented any other direct or circumstantial evidence of a specific defect in the cruise control system that caused the accident. Indeed, they appear to concede they cannot satisfy this requirement of Tennessee law: “Given the nature of electronic malfunctions, it would be impossible to examine the vehicle and pinpoint the precise manner in which the unintended throttle opening occurred.” [Doc. 325 at 15] (emphasis added). Viewed in the light most favorable to them as the non-moving party, Plaintiffs have presented circumstantial evidence that something was wrong with the vehicle. Under Tennessee law, that is not enough to survive a properly-supported motion for summary judgment on their TPLA claims.

¹⁷ In other words, “[t]he ‘lack of a failsafe’ could not have been a cause-in-fact of the collision unless there was an underlying defect the producing an errant signal that could have been arrested by the inclusion of a failsafe.” [Doc. 351 at 71 n.14] (Bush, J., dissenting).

i. Diagnostic Trouble Codes

Plaintiffs contend that historic diagnostic trouble codes for Ms. Parks' vehicle reveal that DTC P0564 was logged multiple times prior to the crash.¹⁸ [Doc. 325 at 12]. The specific diagnostic code logged indicates a stuck Resume/Accelerate ("Res/Accel") switch. [Doc. 317-10 at 269]. The code is not logged until the condition persists for at least 60 seconds. [*Id.* at 258-59]. This switch is on the steering wheel, pictured below.



[Doc. 313-1 at 6].

Plaintiffs assert that the only way the Res/Accel switch could have been stuck was due to an electronic malfunction or because Ms. Parks pressed the Res/Accel button for at least 60 seconds, which they believe to be highly unlikely. [Doc. 325 at 12].¹⁹ Plaintiffs concede that no DTC was triggered during the crash, explaining that the event lasted less than the 61 seconds it takes to trigger it. [*Id.* at 13]. They argue that the historical DTCs are circumstantial evidence that

¹⁸ Plaintiffs say this DTC was logged nine times. [Doc. 325 at 12]. It appears that it was in fact logged six times. [Doc. 317-10 at 258; Doc. 317-7 at 6] (showing six instances of P0564 – Cruise Control Multi-Function Input “A” Circuit).

¹⁹ Elsewhere, they acknowledge it could also have been mechanically stuck but rely on the opinion of Defendants' expert Eddie Cooper to rule out this possibility. Cooper testified that the DTCs were intermittent, meaning the cruise control went back to open condition and was not physically stuck. [Doc. 317-10 at 312].

a cruise control malfunction caused the unintended acceleration in Ms. Parks' vehicle. Referencing the opinions of Samuel Sero and Byron Bloch, they contend that the cruise control system can cause unintended throttle opening for which there is no adequate failsafe. [Doc. 325 at 3].

Plaintiffs appear to acknowledge that there are ordinarily multiple steps required before the cruise control system can open the throttle. Indeed, Cooper testified that activating the cruise control is like a combination lock, requiring the driver to do specific things in a specific order, with additional timing requirements. [Doc. 317-10 at 296-97]. But Plaintiffs assert that a stuck switch was highly likely in the vehicle "given its history of malfunctions," so it is further likely that only one additional step was necessary for a voltage range that would turn the cruise control on. [Doc. 325 at 10]. They cite no expert opinion to support the likelihood of this theory. In a footnote, Plaintiffs appear to speculate that dual failures of the Set/Coast and Res/Accel functions might have occurred. [*Id.* at 10, n.5]. Plaintiffs acknowledge Cooper's testimony that the system must recognize the Set/Coast voltage before the Res/Accel voltages will be recognized. [Doc. 317-10 at 301]. But they argue that the cruise control specification suggests dual failures in these functions may not be recognized. [Doc. 325 at 10, n.5]. This appears to be how they reach the conclusion that only one additional step was required for a voltage range to turn the cruise control on. "Such a condition is highly foreseeable" Plaintiffs say, in a vehicle with complex electronics that are purportedly subject to EMI. [*Id.* at 10].

Plaintiffs also argue that the "malfunction" was getting worse over time because it was "stacked" in more recent drive cycles, i.e. occurred more than once during a drive cycle. [*Id.* at 12]. Yet the DTC history chart indicates that the DTCs were hundreds of miles apart, so it is not clear how Plaintiffs draw this conclusion. [Doc. 317-7 at 6]. Finally, Plaintiffs argue this DTC

cannot be readily discovered by a driver or technician and that there is no true failsafe. [*Id.* at 13-14].

There are several problems with this argument. First, DTC P0564 is inherently ambiguous. It is undisputed that pressing and holding the Res/Accel button on the steering wheel for at least 61 seconds sets DTC P0564. [Doc. 288-2 at 50-51, 179]. So prior DTCs do not affirmatively prove there were prior malfunctions; they could also mean that Ms. Parks previously pressed and held the Res/Accel button for at least 60 seconds.

That ambiguity is immaterial, however, because even if the DTCs indicate some prior malfunction, they do not identify that malfunction. Plaintiffs argue the Res/Accel button was “electronically stuck,” without explaining what that means or showing how it is possible. This omission is significant because they identify four possible causes for DTC P0564, apparently based on documents from Hyundai/Kia: (1) open or short in wiring harness; (2) poor connection or damaged harness; (3) faulty cruise remote control switch; and (4) faulty engine control module. [Doc. 325 at 10]. Yet they do not argue that any of these occurred here. Instead, they suggest that either wear and tear on the clock spring or electromagnetic interference could cause the switch to be electronically stuck. [*Id.*].

Without the inadmissible opinions of Sero and Bloch, Plaintiffs have presented no evidence that electromagnetic interference can cause unintended acceleration. Nor have they presented evidence that a worn clock spring can cause the cruise control system to command acceleration. Citing Eddie Cooper’s testimony, Plaintiffs assert that “[w]ear and tear can induce the system to send signals that are either not within the established voltage ranges . . . but also to [sic] cause voltage signals within the ranges to become ‘stuck.’” [Doc. 325 at 10-11]. The Court has reviewed the cited portions of Cooper’s testimony and cannot locate any testimony that wear and tear on the

clock spring can cause in-range voltage signals to become stuck.²⁰ To the contrary, Cooper testified that in his opinion, a worn clock spring could not cause the cruise control system to command acceleration. [Doc. 317-10 at 308].

Plaintiffs also present no evidence that the clock spring in Ms. Parks' vehicle was in fact worn down, making this argument entirely theoretical. It appears that none of Plaintiffs' experts inspected the clock spring to determine if it exhibited signs of wear and tear. Bloch testified that he did not examine it and did not ask to examine it. [Doc. 317-1 at 72-74]. Loudon testified he did not look at the clock spring and it was not within his purview. [Doc. 288-2 at 156]. Kress testified he did not examine the clock spring. [Doc. 317-11 at 161]. Sero attended only the April 12, 2016, inspection of the vehicle, but it appears that vehicle components were not removed for examination until later inspections, which he did not attend. [Doc. 317-12 at 55-56, 111, 119]. And as Defendants explain, there is affirmative evidence that shows the clock spring was working on the day of the crash – the clock spring carries the signal to the driver airbag, which deployed the day of the crash. [Doc. 331 at 3, n. 5; Doc. 317-10 at 233, 236-37].²¹

Claiming a vehicle component is “electronically stuck” does not elevate conjecture to evidence. Plaintiffs never explain what it means for a switch to be electronically stuck. They present no admissible evidence that an electronically stuck cruise control switch can create unwanted, sudden acceleration. [Doc. 325 at 2]. Their brief indicates that this evidence comes entirely from Bloch and Sero [*id.* at 3], and that testimony has been excluded. Plaintiffs cite no

²⁰ The Court reviewed every instance of the phrase “clock spring” in Cooper’s deposition transcript and found no statement to this effect.

²¹ Plaintiffs also cite the repair of Ms. Parks’ radio. As the Court previously explained, they present no evidence that a malfunctioning radio means something is wrong with the cruise control, or that that something could cause unintended acceleration.

other authority for the proposition that an electronically stuck cruise control in a 2008 Kia Optima can actually cause unintended acceleration.

To the extent Plaintiffs may seek to rely on Loudon for this proposition, he never examined what type of cruise control malfunction could cause unintended acceleration. Loudon did not attempt to induce failure in the exemplar cruise control system, did not look at the operation of the cruise control in Ms. Parks' vehicle, and never checked any of the cruise control switch functions on Ms. Parks' vehicle either electronically or mechanically. [Doc. 288-2 at 28, 178]. In any event, his causation opinions have been excluded because they are unreliable. As for Dr. Kress, he is not qualified to opine as to electronic or electrical engineering matters.

Moreover, the evidence shows that (i) prior DTCs were not associated with high vehicle speed, and (ii) once the DTC is logged, the cruise control system cannot command acceleration. Cooper testified that the engine speed data indicated a low vehicle speed during each prior DTC. [Doc. 317-10 at 294-95]. Given that the DTC is not logged until the "stuck" condition persists for at least 61 seconds, this strongly suggests that the vehicle was not experiencing unintentional acceleration during that 61-second window. The data also showed that the cruise control was in a passive state when the DTC was triggered, meaning the cruise control "system is not active, it's not controlling the vehicle." [*Id.* at 295]. Because the cruise control was off, depressing the Res/Accel switch at that point would have no impact on the speed of the vehicle. [*Id.* at 296]. Cooper explained that "this DTC occurred with the cruise control system in the 'passive' state and had no effect on the throttle position whatsoever." [Doc. 317-6 at 8]. Cooper explained that if DTC P0564 were triggered, the driver would not be able to use the cruise control until the code was cleared. [Doc. 317-10 at 265]. So not only is there no evidence that Ms. Parks experienced cruise control induced unintended acceleration on any of the prior occasions when the P0564 diagnostic

code was triggered, the evidence affirmatively suggests she did not. Even if DTC P0564 were evidence of a malfunction – something Plaintiffs have not shown – there is no evidence to connect that alleged malfunction with cruise control induced acceleration.

Viewed in the light most favorable to the Plaintiffs, the DTC history is at best circumstantial evidence that the Res/Accel switch was stuck, either mechanically, electronically, or because it was depressed by the driver for more than 60 seconds. It is not evidence that a stuck Res/Accel switch can actually cause unintended acceleration, much less that it did so on the day of the crash. To the contrary, the historical DTC data suggests that the P0564 code was not associated with high vehicle speeds. The uncontroverted evidence establishes that once triggered, that DTC prevents further engagement of the cruise control system. So not only was the DTC not associated with prior high speed acceleration, once triggered, it prevents acceleration through the cruise control.

ii. Accelerator Pedal Position

Plaintiffs' second piece of evidence relating to causation is that the accelerator pedal in the Parks vehicle was in the neutral position at the time of the crash, demonstrating that Parks did not have her foot on the accelerator pedal. [Doc. 325 at 18]. According to Plaintiffs, this means there is "no other way, other than by a vehicle malfunction, to explain how the throttle plate was stuck in an 80% open position." [*Id.*]. Even if Plaintiffs are completely correct about this evidence and its import, it is not evidence of a specific defect. At best, it is circumstantial evidence that Ms. Parks did not have her foot on the accelerator, leading to an inference that something was wrong with her vehicle.

Moreover, Plaintiffs rely primarily on evidence of the position of the accelerator pedal after the crash, not before. Steven Loudon viewed photographs of the subject accelerator pedal after the

crash and noted there was a ½ inch gap between the pedal and the bracket. This gap is consistent with the pedal being in the idle position. According to Plaintiffs, Loudon’s opinion “conclusively refutes” Kia expert James Walker’s opinion that the pedal was depressed at the time of impact. [Doc. 325 at 18].

Plaintiffs are wrong for several reasons. First, the Court has excluded Loudon’s opinion regarding the ½ inch gap as unreliable because he failed to account for the undisputed damage to the accelerator pedal base. Loudon knew the accelerator pedal base was damaged in the crash, but did not know how much it was out of place. [Doc. 288-2 at 63-64]. He knew it was cracked, but not where, and he never inspected the base to find out. [*Id.* at 64]. All he did was look at the ½ inch gap in the exemplar in idle position, look at a photograph of a ½ inch gap in the damaged assembly in Ms. Parks’ Kia, and conclude that the gap must mean the same thing in both the exemplar and damaged assembly – that the accelerator pedal was in the idle or neutral position. As the Court previously explained, this is not sound methodology. It is no methodology at all.

Loudon’s failure to account for the damage is also why his opinion is insufficient to create a fact dispute regarding the pedal position – it speaks to the position of the accelerator pedal after the crash. It is undisputed that accelerator pedal read at “idle” after the crash. It is also undisputed that the adjustable polymer mounting bracket for the assembly was cracked across its entire width during the crash:



[Doc. 317-15 at 23]. Based on his 3D computerized testing, Kia’s expert James Walker opined that the crash forces pushed the dash panel rearward while simultaneously pushing Ms. Parks’ foot forward, causing the fracture. [Doc. 317-15 at 25]. Eldon Leaphart opined that because the accelerator pedal base is cracked and out of position, even though the pedal itself is pressed all the way down, the readings are at “idle” because the base has rotated relative to the pedal. [Doc. 317-23 at 24, 25-26]. Leaphart and Walker may be right or wrong, but they base their opinions on an assessment of the crash damage to the component. Evidence of the pedal position after the crash that ignores this undisputed damage is not enough to create an issue of fact as to the post-crash position of the pedal.²²

Nor would such a dispute be material. Plaintiffs’ evidence that the accelerator pedal was not depressed at the time of the crash at most suggests that Ms. Parks was not pressing the accelerator pedal. Drawing inferences in Plaintiffs’ favor, that makes it less likely that the acceleration was due to driver error. But the elimination of this possibility leaves myriad remaining options; it does not isolate a specific defect. To carry their burden under the TPLA, it is not enough

²² Kress’s pedal position opinion is deficient in the same way. Kress compared the damaged accelerator pedal assembly to an undamaged exemplar. Based on his flawed methodology, or lack of methodology, he concludes that the ½ inch gap in the exemplar means the same thing in the damaged component. Regardless, this aspect of his accelerator pedal opinions was excluded as unreliable.

for Plaintiffs to show that *something* was wrong with Ms. Parks' vehicle. Through direct or circumstantial evidence, they must present some evidence of a specific defect in the vehicle that caused the accident.

iii. Engine Signature of Cruise Control Induced Acceleration

Based on his testing in an exemplar vehicle, Steven Loudon concludes that the engine signature of the accident is most consistent with cruise control induced acceleration. [Doc. 288-1 at 24]. Viewed in the light most favorable to Plaintiffs, Loudon's opinion supports the theory that the acceleration of Ms. Parks' vehicle was through the cruise control system. But it is not evidence of a specific defect. As Judge Mattice explained, asserting that the engine signature is consistent with unintended cruise control induced acceleration presupposes that unintended cruise control induced acceleration is possible. [Doc. 341 at 34]. Loudon did not "rule in" this possibility. It does not matter if a cause is "consistent with" a result if that cause is not possible. Loudon testified that he could not explain how the cruise control system could spontaneously command acceleration. [Doc. 288-2 at 53-54]. For that reason, his opinion that an errant signal from the cruise control system caused Ms. Parks' unintended acceleration was deemed unreliable, conclusory, and inadmissible.

Nor does Loudon's testing prove anything about how a defective cruise control system would function. He did not attempt to replicate a failure or defect of the system, as Plaintiffs made clear. And Plaintiffs never suggest that his tests were any different than ordinary engagement of the cruise control system. So Loudon's opinions bring Plaintiffs no closer to showing that a specific defect or condition in the cruise control system caused Ms. Parks' accident.

iv. Braking Effectiveness

Next, Plaintiffs contend that braking effectiveness is dramatically reduced as the vacuum assist is depleted after only a few pumps of the brakes during a wide-open throttle event. [Doc. 325 at 15]. Plaintiffs assert that a woman of Ms. Parks' age would be expected to apply 50 to 60 pounds of force to the brakes. [*Id.* at 17]. Loudon accelerated a 2008 Kia Optima exemplar at wide open throttle and created a "worst case" by pumping the brakes. [*Id.*]. Applying 50 pounds of force, he was only able to keep the car from accelerating, but not stop it. [*Id.*]. Only after applying approximately 150 pounds of force was Loudon able to reduce the speed of the vehicle. [*Id.*]. Plaintiffs argue that Walker's testing likewise shows that braking against a wide open throttle was "likely beyond the ability" of a woman like Ms. Parks. [*Id.*].

Plaintiffs do not provide any evidence to support their assertions about how much force Ms. Parks would have been able to apply. Loudon did not know how he came up with the 50 pound estimate, and Plaintiffs' citation for this proposition is not to the record.²³ In addition, the brake testing in Loudon's report was done after accelerating via the accelerator pedal, not the cruise control. [Doc. 288-1 at 30-32]. Loudon testified that when he accelerated the vehicle, engaged the cruise control, and then applied the brakes, the cruise control disengaged. [Doc. 288-2 at 88-89]. Cooper likewise opined that applying the brake pedal cancels the cruise control function. [Doc. 317-8 at 3]. So Loudon's testing of the brakes against an accelerator pedal-induced acceleration does not support Plaintiffs' theory that a cruise control malfunction caused the accident, despite Ms. Parks allegedly braking. Regardless, the effectiveness of the brake pedal against a wide open throttle does nothing to explain how the throttle opened in the first place. So once again, this evidence does not point to a specific defect in the vehicle that caused the accident.

²³ They cite "Exhibit X, Young's Surrogate study" for this proposition. [Doc. 325 at 17]. The Court could not identify this document in the record.

v. Human Factors Perspective

Next, Plaintiffs show that from a human factors perspective, a sustained, unintended acceleration event with a duration of over 30 seconds, over a half-mile distance is highly unlikely to be attributable to driver error or pedal misapplication. Kress opined, *inter alia*, that Ms. Parks' evasive maneuvers and the duration of the event suggest that the collision was not due to driver error or pedal misapplication. According to Kress, the literature indicates that a driver typically recognizes inadvertent vehicle input quickly (e.g. pressing the accelerator rather than the brake) and corrects the error. [Doc. 317-3 at 12].

As Plaintiffs explain, "Dr. Kress does not purport to opine as to a specific defect in the design of Kia's electronic throttle control system or cruise control system." [Doc. 320 at 2]. Taking Plaintiffs at their word, Kress's testimony does not identify a specific defect in the vehicle. Logically, ruling out one of multiple possible causes of an event is insufficient to isolate another. It narrows the field, but does not end the inquiry. At most, Kress's opinion is circumstantial evidence that driver error did not cause the accident. The elimination of this possibility leaves any number of remaining possible causes, not a specific defect.

vi. Eyewitness Testimony and Ms. Parks' Statements

Finally, Plaintiffs argue that eyewitness testimony regarding the event shows that Ms. Parks was controlling her car as a rational person would. [Doc. 325 at 16]. They also argue that Ms. Parks made several dying declarations stating that her car could not be stopped. [*Id.*]. Dr. Kress relied on these and other witness statements in reaching his conclusion that Ms. Parks applied the brakes but was unable to stop the vehicle. Viewed in the light most favorable to Plaintiffs, this is circumstantial evidence that the crash was not due to driver error. Drawing

inferences in Plaintiffs' favor, it is arguably circumstantial evidence that a problem with the vehicle caused the crash. But it is not circumstantial evidence of a specific defect in the vehicle.

c. Summary

Tennessee law requires a TPLA plaintiff to “trace the injury to some specific error in the construction or design of the” product. *Fulton v. Pfizer Hosp. Prods. Grp., Inc.*, 872 S.W.2d 908, 912 (Tenn. Ct. App. 1993) (quoting *Browder v. Pettigrew*, 541 S.W.2d 402, 404 (Tenn. 1976)). So in order for Plaintiffs' claims to survive summary judgment, they must present either direct or circumstantial evidence that a specific, defective condition in the vehicle proximately caused their injuries. Plaintiffs say that malfunction was an electronically stuck Res/Accel switch in the cruise control system. They do not show that such a condition is capable of causing unintended acceleration, even on a theoretical level. Plaintiffs theory of causation is based on the excluded EMI testimony of Sero and Bloch. Without it, they do not have a complete – much less more probable – causation hypothesis.²⁴

Moreover, Kia's expert Eddie Cooper testified that there are many steps and conditions required for the cruise control to command acceleration. Cooper testified that using the cruise control to accelerate the vehicle is like a combination lock – it requires the driver to do very specific things in a very specific order. [Doc. 317-10 at 296-97]. Cooper estimates there are 24,300,000 possible combinations, not including timing requirements. [*Id.*]. Of these millions of combinations, there is only one that will cause the cruise control to accelerate the vehicle. [*Id.* at 296]. Cooper testified that if the “switch is stuck” due to an out of range voltage, “you can never turn it on.” [*Id.*

²⁴ “Where a plaintiff is dependent on circumstantial evidence to prove a defect in a product, it is sufficient if he makes out the more probable hypothesis and the evidence need not arise to that degree of certainty which would exclude every other reasonable conclusion.” *Sigler v. American Honda Motor Co.*, 532 F.3d 469, 486 (6th Cir. 2008) (citation omitted, cleaned up).

at 299]. Based on his calculations and investigation, he opines that the cruise control system did not cause or contribute to the accident. [Doc. 317-6 at 12].

Cooper also testified that activating the brake pedal cancels the cruise control function. [*Id.* at 8]. So even if something in the vehicle started the chain of events required for the infinitely small possibility of cruise control acceleration to take place, it would have had to occur without any brake input or with a brake malfunction. Plaintiffs have proven neither of these conditions. Their evidence regarding the degree of force required to stop the vehicle at a wide open throttle relates to acceleration through the accelerator pedal, not the cruise control.

To avoid summary judgment, Plaintiffs “must do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). Plaintiffs have not met this burden. They have not produced evidence of a specific defect in the Parks vehicle that caused unintended acceleration or traced their injuries to that defect. Specifically, they have not shown that the vehicle had an electronically stuck Res/Accel switch or that such a malfunction is capable of commanding acceleration in the first place. Without evidence of a specific defect, they cannot trace their injuries to that defect. While their evidence may be direct or circumstantial, for Plaintiffs’ TPLA claims to survive summary judgment, they must come forward with evidence of a specific defect. It is not enough to rule out driver error. It is not enough that something may have been wrong with the car. It is not enough that a different brake system design might have prevented the accident, assuming Ms. Parks was pressing the brakes. Plaintiffs have to present evidence that creates a fact issue as to specific defect in order to survive summary judgment. They have not done so.

VII. CONCLUSION

Accordingly, the Motion to Exclude Testimony of Tyler A. Kress, Ph.D. [Case No. 4:16-cv-117, Doc. 309; Case No. 4:16-cv-118, Doc. 286] and Motion to Exclude the Testimony of Steven Loudon [Case No. 4:16-cv-117, Doc. 311; Case No. 4:16-cv-118, Doc. 288] are **GRANTED IN PART**. Without the inadmissible evidence proffered by Plaintiffs' experts, Plaintiffs have presented no evidence of a specific defect in the subject vehicle that caused their damages. The Motion for Summary Judgment [Case No. 4:16-cv-117, Doc. 316; Case No. 4:16-cv-118, Doc. 293] is therefore **GRANTED** and this action **DISMISSED WITH PREJUDICE**.

SO ORDERED.

/s/ Charles E. Atchley, Jr.

CHARLES E. ATCHLEY, JR.

UNITED STATES DISTRICT JUDGE