UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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IN RE:

GENERAL MOTORS LLC IGNITION SWITCH LITIGATION

14-MD-2543 (JMF)
14-MC-2543 (JMF)

This Document Relates To:
Greenroad v. General Motors, No. 15-CV-1626
Abney et al. v. General Motors, No. 14-CV-5810

OPINION AND ORDER

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JESSE M. FURMAN, United States District Judge:

[Regarding the Parties' *Daubert* Motions and New GM's Motions for Summary Judgment in the Bellwether Phase Two, Category B Cases]

This multidistrict litigation ("MDL"), familiarity with which is assumed, arose from the recall in 2014 by General Motors LLC ("New GM") of General Motors ("GM") vehicles that had been manufactured with a defective ignition switch — a switch that could too easily move from the "run" position to the "accessory" and "off" positions, causing moving stalls and disabling the airbag and other critical safety systems. In most of the personal injury and wrongful death cases pending before the Court, Plaintiffs point to the *non*-deployment of airbags following deployment-level crashes as evidence of inadvertent switch rotations. Approximately 213 Plaintiffs, however, bring claims arising from accidents in which airbags actually deployed. (Docket No. 4850, at 2-3). New GM contends that if the airbag in a vehicle deployed during an accident sequence, the switch was in the "run" position and, *a fortiori*, that the switch did not inadvertently rotate out of "run." Plaintiffs concede that if a vehicle's airbag deployed, the switch was in the "run" position at the moment of impact, but allege that a switch could have rotated from "run" to "accessory" or "off" first, caused (or exacerbated) an accident, and then rotated back into the "run" position before airbag deployment.

To test these positions, the parties identified two cases to serve as "bellwethers" for the category of cases involving airbag deployment — referred to as "Category B" of Phase Two of the Court's bellwether program. (Docket No. 3081, at 1-2). In an Order entered on July 7, 2016, the Court specified that discovery and motion practice in the two Category B cases would be focused, at least in the first instance, on whether Plaintiffs could "offer sufficient admissible evidence to create a genuine issue of material fact as to whether an inadvertent ignition switch rotation occurred in an accident where an airbag deployed during that accident." (*Id.* at 6). Now pending are (1) the parties' dueling motions to preclude expert opinions and testimony under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and Rule 702 of the Federal Rules of Evidence; and (2) New GM's motion, pursuant to Rule 56 of the Federal Rules of Civil Procedure, for summary judgment in the two Category B bellwether cases.

For the reasons stated below, the Court concludes that New GM's motions must be granted. Significantly, neither Plaintiffs nor their experts cite any evidence suggesting that double ignition switch rotation has occurred in the real world. Nor did (or could) they conduct any experiments that would tend to show that double switch rotation is anything more than a theoretical possibility. At the end of the day, the experts' opinions that double rotation could occur, and did occur in each of the cases at issue, relies more on *ipse dixit* and speculation than it does on actual scientific or technical expertise. It follows that those opinions do not pass muster under *Daubert* and Rule 702 and must be excluded. And from that conclusion, it follows that New GM is entitled to judgment as a matter of law in each of the two cases.

BACKGROUND

The following brief background is taken from admissible evidence in the record and the parties' statements submitted pursuant to Local Rule 56.1. *See, e.g.*, *Costello v. City of Burlington*, 632 F.3d 41, 45 (2d Cir. 2011).

A. The Accidents

On the night of February 3, 2011, Vivian Garza and two passengers — all Texas residents — were driving in icy weather conditions in a 2009 Chevrolet Cobalt (the "2009 Cobalt") across a bridge on a four-lane highway in Alice, Texas. (Docket No. 3710 ("Def.'s 56.1 Statement") ¶¶ 4-5, 11-17). It was Garza's first time driving on ice. (*Id.* ¶ 19). Before Garza reached the bridge, a car ahead of hers lost control and "rolled" into the highway median. (*Id.* ¶ 9). A Ford Mustang then "lost control" and struck a guardrail, coming to a stop in the middle of the road. (*Id.* ¶¶ 9, 18). Thereafter, a third vehicle hit the Mustang and fled the scene. (*Id.* ¶ 9). Garza testified that she then tried to steer her car to avoid the Mustang, but she was unable to turn the steering wheel. (Docket No. 3776 ("Lusztig Decl."), Ex. 22, at 70). Her 2009 Cobalt crashed into the Mustang, at which point the Cobalt's airbags deployed; Garza's vehicle subsequently struck the guardrail, but with insufficient force to cause an airbag deployment. (Def.'s 56.1 Statement ¶ 10; Docket No. 3712 ("Bartoszek Decl."), Ex. 10 ("McCort *Garza* Report"), at 10-11). A crash data retrieval ("CDR") report from the car indicated that it was in the "run" mode when the crash with the Mustang occurred. (Def.'s 56.1 Statement ¶¶ 26-27).

The *Greenroad* case arises from an accident nearly two years later. At that time, Ruby Greenroad, also a resident of Texas, was eighty-nine years old and suffered from benign positional vertigo, for which she was prescribed the anti-vertigo medication meclizine. (*Id.* ¶¶ 28, 31; Docket No. 3774 ¶ 80). On January 12, 2013, she was driving her 2007 Chevrolet

Cobalt (the "2007 Cobalt") toward a T-intersection on an overpass when, she later claimed, her brakes failed; she began pumping the brakes and attempting to steer her car through the intersection, both to no avail. (*Id.* ¶¶ 44, 48). Her 2007 Cobalt veered off the road into the guardrail, then flew off the overpass and crashed into the ground below, causing the airbag to deploy. (*Id.* ¶¶ 48-49). The 2007 Cobalt's Sensing Diagnostic Module ("SDM") — which records certain information in the event of a crash — was never imaged after the crash, and thus no CDR report is available. (Docket No. 3709 ("Def.'s Mem."), at 9 n.17).

B. Plaintiffs' Theory

It is undisputed that, in each of the cars at issue, the ignition switch had to be in the "run" position for the airbags to deploy — as they did. (Def.'s Mem. 2; Docket No. 3773 ("Pls.' Mem."), at 3). In fact, it is undisputed that, for the airbags to have deployed in either case, the ignition switch had to be in the "run" position for at least 2.5 to 3 seconds before the relevant impact, as that is the minimum amount of time it would have taken the airbag system to reinitialize and deploy. (Def.'s Mem. 3; Pls.' Mem. 3). Thus, in these cases — as in all of the Category B cases — the Plaintiffs' theory is that the ignition switches in the cars at issue rotated twice. Specifically, Plaintiffs posit that each ignition switch first moved inadvertently out of the "run" position into the "accessory" or "off" position; stayed in accessory or off long enough to result in the loss of crucial features — such as power brakes, power steering, and airbag systems — and to cause or exacerbate the accident at issue; and then shifted back from accessory or off to run at least 2.5 seconds before a crash of sufficient magnitude to cause airbag deployment, leaving enough time for the airbag system to reinitialize and the airbags to deploy upon impact. The Court will refer to that full sequence of events as an "Airbag Deployment RAR Sequence."

C. Plaintiffs' Experts

In support of their theory that the Airbag Deployment RAR Sequence occurred in both accidents, Plaintiffs proffer three experts: Michael McCort, Glen Stevick, and Chris Caruso. First, McCort conducts an accident reconstruction analysis, including the sequence, speed, and trajectory of each Plaintiff's vehicle, and seeks to opine on the likelihood that each crash was caused by ignition switch rotation. (McCort *Garza* Report 1; Bartoszek Decl., Ex. 13 ("McCort *Greenroad* Report"), at 1). In *Garza*, after reconstructing the likely sequence of the accident, McCort supports his conclusion that double ignition switch rotation caused the crash with the Mustang by noting that the drop in engine speed within three and two seconds of Garza's impact with the Mustang "indicates [that] a key state change from RUN to ACC or OFF occurred prior to the Mustang coupe impact and most likely between the -3 sec and -2 sec time intervals." (McCort *Garza* Report 12-13 ("The key state change induced a moving stall, shutting off the engine and resulting in 0 RPM being recorded in the pre-crash data from -2 sec to -1 sec.")). McCort accounts for the subsequent airbag deployment by opining that by the time of "the Deployment event, the key state had returned to RUN and the Run/Crank Ignition Switch Logic Level reported as 'Active.'" (*Id.* at 13). His report explains that the reduced braking Garza exhibited in the course of the accident and "the reported steering problems testified to by the driver and her passengers" were "consistent" with ignition switch rotation. (*Id.* at 15). McCort apparently assumes that double ignition switch rotation is possible — both in general and within the time period in which the *Garza* accident occurred. He did no independent analysis to verify these assumptions and did not rely on the opinions of Plaintiffs' other experts as to the possibility

of an Airbag Deployment RAR Sequence. (*See* Bartoszek Decl., Ex. 9 ("McCort Dep."), at 17, 63-64, 66, 78).

Similarly, in *Greenroad*, McCort opines on the speed and sequence of the accident before concluding that "[b]ecause there was an airbag deployment in this crash, the most likely scenario is a key state change from RUN to ACC and back to RUN" and that the latter "must have occurred at least 2.5 seconds prior to the ground impact that resulted in deployment." (McCort *Greenroad* Report 10). McCort notes that Greenroad's reported loss of engine power, power steering, and power braking were "consistent with what occurs when the key state is moved to the ACC or OFF position, turning off the engine," as was Greenroad's description of pumping her brakes without effect. (*Id.* at 11). While acknowledging that the "cause of a key state change in the subject crash is unknown," McCort explains that "[i]t has been shown by others, including GM, that a key state change can occur due to driver interaction with the vehicle, such as a knee impact, or external forces such as ground bumps or impacts" and posits that expansion joints in the bridge deck or Greenroad's knee interacting with the key could have caused the ignition switch to rotate. (*Id.*). He further opines that "[r]otation caused by a knee impact or a bump in the road could have occurred at least twice during this accident sequence; just before Ms. Greenroad experienced the described loss of power, and then again approximately 2.5-3 seconds before the vehicle's impact with the ground." (*Id.*).

Plaintiffs' second expert, Stevick, is a mechanical engineer who specializes in failure analysis and the design of mechanical-electrical equipment and systems. Stevick's testing for his report consisted of mounting GM ignition switches in test frames and measuring their torque responses in moving from off to accessory to run to start and back from run to accessory to off. (Bartoszek Decl., Ex. 5 ("Stevick Report"), at 9). Stevick concludes that 2006 and earlier model

year switches had "measurably lower torques than the 2008 and later [model year] vehicle switches," while ignition switches from 2007 had a wider range of torques. (*Id.* at 9-17). Stevick notes that "the same low torque that allows the switch to inadvertently move from RUN to ACC will allow the switch to move back from ACC to RUN later in the sequence of events. Either inertial loadings or knee-to-key interaction can move the ignition switch back to RUN. If the SDM maintained power or had sufficient time to reinitialize the airbags may be deployable at later stages of the collision event because the switch moved back to the RUN position." (*Id.* at 17-18). Stevick also offers opinions regarding the evidence in Greenroad's and Garza's cases "supporting ignition rotation." (*Id.* at 18-24). Citing Greenroad's statements about her perceived loss of power steering and power braking, Stevick notes that "the failure of the ignition switch to stay in RUN would lead to all of the descriptions that Ms. Greenroad provided to multiple persons — loss of steering, loss of braking, and the engine turning off." (*Id.* at 20). Descriptions of Greenroad's key ring, Stevick opines, are "consistent with a knee to key interaction, particularly given witness testimony that Ms. Greenroad kept her seat near the steering column. This interaction can move the ignition switch from RUN to ACC . . . [and] could also move the switch back from ACC to RUN later in the collision sequence of events." (*Id.* at 21). And "inertial activation/rotation of the ignition switch cannot be ruled out" because the switch in Greenroad's car "was known to be in the family of recalled switches, which had very low actuation torques for both RUN to ACC and ACC to RUN." (*Id.*). Similarly, Stevick notes that the "vehicle symptoms described by the subject vehicle occupants in the Garza incident are consistent with a loss of power due to ignition switch rotation out of the RUN position." (*Id.* at 21-22). According to Stevick, a photograph of Garza's key ring confirms that it included "several hanging items," rendering knee-to-key interaction "a possible cause of an inadvertent

ignition switch rotation out of the RUN position prior to impact and possibly back into run during the sequence of collision events"; in Stevick's view, Garza was similarly susceptible to knee-to-key interaction "due to her height and consequently her seat position." (*Id.* at 23). As in the *Greenroad* case, Stevick opines that "inertial rotation of the ignition switch cannot be ruled out" given the "low actuation torques" in the subject ignition switches. (*Id.* at 24).

Finally, Plaintiffs seek to introduce the opinions of Caruso, an automotive safety systems expert. Caruso's "process consists of identifying, to the extent possible, the system design, development and testing methodologies used by the [original equipment manufacturer] and systems suppliers, evaluating these processes and determining, based on forensic evidence from the subject vehicle, potential sources for the failure." (Bartoszek Decl., Ex. 8 ("Caruso Report"), at 7). Caruso opines that Greenroad's loss of control "indicates a catastrophic loss of vehicle power caused by the known defect in the GM ignition switch design" and that the "subsequent deployment of the airbag during the crash sequence was the result of the vehicle ignition being put back into the RUN/Crank mode within 2.5 to 3 seconds before the vehicle's impact with the ground." (*Id.*). Caruso describes the Greenroad crash as "consistent" with three earlier accidents involving GM vehicles — the Breen, Frei, and Harding accidents — in which the airbags did not deploy despite the vehicles being in "run" as late as one second before impact; engineers at New GM initially theorized that the three accidents were caused by double ignition switch rotation. (*Id.* at 7-8, 12-15). Caruso assumes that the Airbag Deployment RAR Sequence generally is possible based on McCort's opinions concluding that double ignition switch rotation caused these accidents and on New GM's speculation regarding the Breen, Frei, and Harding accidents. (*Id.* at 15-16). He opines that "the most plausible explanation" for the combination of "the ignition switch rotation which caused the accident" and the subsequent airbag deployment is

double ignition switch rotation, caused by knee-to-key interactions, "sudden vehicle jerk[s]," or Greenroad's deliberate attempt to rotate the ignition switch back into run mode by hand. (*Id.*). Notably, Plaintiffs no longer plan to elicit Caruso's opinions about the causes of the Garza crash. (*See* Pls.' Mem. 32).[1]

APPLICABLE LEGAL STANDARDS

A. Summary Judgment

Summary judgment is appropriate where the admissible evidence and pleadings demonstrate "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); *see also Johnson v. Killian*, 680 F.3d 234, 236 (2d Cir. 2012) (per curiam). A dispute over an issue of material fact qualifies as genuine if the "evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *accord Roe v. City of Waterbury*, 542 F.3d 31, 35 (2d Cir. 2008). The moving party bears the initial burden of demonstrating the absence of a genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986). "In moving for summary judgment against a party who will bear the ultimate burden of proof at trial,

[1] New GM speculates that Plaintiffs changed course with respect to the *Garza* case because Caruso's deposition testimony undermines Garza's theory of the case. (*See* Docket No. 3813 ("Def.'s Reply"), at 3, 17). There is something to that speculation: Caruso testified that the CDR report from Garza's accident supported the argument that the Airbag Deployment RAR Sequence occurred because the data revealed that Garza's engine speed dropped to zero revolutions per minute ("RPMs") several seconds before the crash with the Mustang. (*See* Bartoszek Decl., Ex. 1 ("Caruso Dep."), at 136 (agreeing that the reason he "believe[d] there was a run, accessory, run is because I have zero r.p.m.'s that I cannot explain"). He conceded, however, that the Breen, Frei, and Harding accidents did not reflect a drop in engine speed to zero RPMs and that, therefore, "the lack of a 0 RPM reading in the CDR data for the Harding, Breen, and Frei incidents was not consistent with the CDR data for the Garza incident." (Pls.' Mem. 30; *see also* Caruso Dep. 118, 121-23, 125-26, 129 (agreeing that "[t]here's nothing in the CDR record whatsoever that would indicate that it went from run to accessory and back to run, using your principal factor which is a zero r.p.m.")).

the movant's burden will be satisfied if he can point to an absence of evidence to support an essential element of the nonmoving party's claim." *Goenaga v. March of Dimes Birth Defects Found.*, 51 F.3d 14, 18 (2d Cir. 1995) (citing *Celotex*, 477 U.S. at 322-23); *accord PepsiCo, Inc. v. Coca-Cola Co.*, 315 F.3d 101, 105 (2d Cir. 2002). To defeat a motion for summary judgment, the non-moving party must advance more than a "scintilla of evidence," *Anderson*, 477 U.S. at 252, and demonstrate more than "some metaphysical doubt as to the material facts," *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). The non-moving party "cannot defeat the motion by relying on the allegations in [its] pleading or on conclusory statements, or on mere assertions that affidavits supporting the motion are not credible." *Gottlieb v. Cty. of Orange*, 84 F.3d 511, 518 (2d Cir. 1996) (citation omitted).

B. *Daubert*

The admissibility of expert testimony is governed by Rule 702 of the Federal Rules of Evidence, which provides in relevant part that "[a] witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify" to his opinion 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. In *Daubert*, the Supreme Court defined the "gatekeeping role" of district courts with respect to expert testimony, declaring that Rule 702 and other Federal Rules of Evidence "assign to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." 509 U.S. at 597. The Rule 702 inquiry is

a flexible one that "depends upon the particular circumstances of the particular case at issue." *In re: Gen. Motors LLC Ignition Switch Litig.* ("*GM Scheuer Op.*"), No. 14-MD-2543 (JMF), 2015 WL 9480448, at *1 (S.D.N.Y. Dec. 29, 2015) (internal quotation marks omitted).

In carrying out this gatekeeping role, the Court must consider "indicia of reliability," such as whether the proffered testimony "is grounded on sufficient facts or data," whether "the testimony is the product of reliable principles and methods," and whether "the witness has applied the principles and methods reliably to the facts of the case." *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002) (internal quotation marks omitted). Among the factors relevant to the reliability inquiry are the following:

> (1) whether a theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) a technique's known or potential rate of error, and the existence and maintenance of standards controlling the technique's operation; and (4) whether a particular technique or theory has gained general acceptance in the relevant scientific community.

Id. at 266 (citations omitted) (internal quotation marks omitted). Ultimately, the *Daubert* reliability inquiry is designed "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999).

The focus of the analysis "must be solely on principles and methodology, not on the conclusions that they generate." *Daubert*, 509 U.S. at 595. Significantly, however, the Court is not required "to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). Instead, the Court "may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *Id.* Relatedly, *Daubert* also requires that expert testimony "assist the trier of fact to

understand the evidence or to determine a fact in issue." *Daubert*, 509 U.S. at 591 (quoting Fed. R. Evid. 702). That prong of the inquiry primarily turns on "whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute." *Id.* (quoting *United States v. Downing*, 753 F.2d 1224, 1242 (3d Cir. 1985)); *see also Donnelly v. Ford Motor Co.*, 80 F. Supp. 2d 45, 49 (E.D.N.Y. 1999) (requiring a court to consider whether "an expert's testimony is relevant to the task at hand, namely, whether the expert's reasoning or methodology can be properly applied to the facts before the court" (internal quotation marks omitted)).

In the final analysis, "expert testimony should be excluded if it is speculative or conjectural, or if it is based on assumptions that are so unrealistic and contradictory as to suggest bad faith, or to be in essence an apples and oranges comparison." *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18, 21 (2d Cir. 1996) (citations omitted) (internal quotation marks omitted). By contrast, "other contentions that the assumptions are unfounded go to the weight, not the admissibility, of the testimony." *Id.* (internal quotation marks omitted) As the *Daubert* Court itself stressed, "the traditional and appropriate means of attacking shaky but admissible evidence" are not exclusion of that evidence, but rather "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." *Daubert*, 509 U.S. at 596.

DISCUSSION

Significantly, several matters of note to the present motions are not in dispute. First, in each of the cars at issue, the airbags deployed during the accident sequence. (Pls.' 56.1 Statement ¶¶ 23, 49). Second, that means each ignition switch was in the "run" position at the relevant moment of impact, as the airbags were operational only if the ignition switch was in that

position — and, critically, that the switch had been in that position for at least 2.5 seconds prior to deployment. (Def.'s Mem. 2-3; Pls.' Mem. 3). And third, as a matter of logic, that means that the accidents were not caused (or exacerbated) by the ignition switch defect unless the switches rotated first from the "run" position to the "off" or "accessory" position — long enough to result in the loss of power steering, power brakes, and the airbags — and then, at least 2.5 seconds before the moment the airbags deployed, rotated back into the "run" position. (Def.'s Mem. 2-3; Pls.' Mem. 2-3). The bottom line is that the parties agree that, for either Garza and Greenroad to prevail at trial, Plaintiffs would need to introduce sufficient admissible evidence from which a trier of fact could find both that the Airbag Deployment RAR Sequence can occur in general and that it *did* occur in her case. They further agree that this causation evidence must come in the form of expert testimony. (*See, e.g.*, Def.'s Mem. 5 (citing *Amorgianos*, 303 F.3d at 268; *Romo v. Ford Motor Co.*, 798 F. Supp. 2d 798, 810 (S.D. Tex. 2011)); Pls.' Mem. 33-34 (conceding that "admissible expert testimony is required to show causation")).

As noted, Plaintiffs offer the testimony of three experts to satisfy their burden on causation: Michael McCort, Glen Stevick, and Chris Caruso. Much of their proposed testimony is unobjectionable — and, indeed, New GM does not appear to object to it. For example, McCort is indisputably qualified as an expert in accident reconstruction based on "his ample experience" in the field, *GM Scheuer Op.*, 2015 WL 9480448, at *2, and his general opinions about timing, the sequences of events, and the loss of braking and steering in both accidents are within the scope of his expertise. Similarly, Stevick is manifestly qualified to testify about his testing of ignition switches at issue and the torque necessary to rotate them from "run" to "accessory" or "off" and back again. *See, e.g., id.* at *3. And Caruso, an expert on automotive safety systems, is on solid ground opining about the relationship between the ignition switch and

the airbag system. In addition, the three witnesses' testimony may well suffice to establish that the phenomenon of double rotation — that is, the Airbag Deployment RAR Sequence — is a theoretical possibility. For instance, New GM has conceded that inadvertent rotation from "run" to "accessory" or "off" was possible in certain car models due to insufficient torque resistance in the ignition switches, (Def.'s Mem. 5-6), and Stevick's testing supports the conclusion that the same, or even less, torque was needed to move from "accessory" or "off" back to "run" in Plaintiffs' car models, (Stevick Report 9-15). For several interrelated reasons, however, Plaintiffs' experts go too far in saying what Garza and Greenroad would need them to say to survive summary judgment — namely, that the Airbag Deployment RAR Sequence occurred, and caused or contributed to the accidents, in each of their cases.[2]

First, neither Plaintiffs nor their experts cite any evidence suggesting that the Airbag Deployment RAR Sequence has occurred in the real world. Nor do (or can) they point to any experiments they have done — let alone tests, opinions, studies, data, or reports in the scientific literature writ large — that would tend to show that the Airbag Deployment RAR Sequence is anything more than a working hypothesis regarding the cause of Plaintiffs' accidents. Plaintiffs' experts did not conduct any tests attempting to recreate the Airbag Deployment RAR Sequence in its entirety. Nor did they try to replicate the conditions a vehicle might experience if it underwent a double rotation of the ignition switch. As a matter of fact, Plaintiffs explicitly concede that the Airbag Deployment RAR Sequence "cannot be recreated under real world

[2] Strictly speaking, it is not even clear that Caruso says that the Airbag Deployment RAR Sequence caused or contributed to the accidents. As noted above, Plaintiffs no longer plan to elicit testimony of that sort from him in the *Garza* case. And despite several opinions in his report regarding the likelihood that Greenroad's loss of control was caused by ignition switch rotation, Caruso insisted at his deposition that his intent at trial was actually to "talk about what the ignition switch does to the airbag system" not to "opine . . . that [Greenroad's] loss of control was a function of the ignition switch." (Caruso Dep. 159).

conditions." (Pls.' Mem. 18 n.4). In short, Plaintiffs' experts point to no evidence that the Airbag Deployment RAR Sequence is more than a theoretical possibility. Theoretical possibility, however, does not qualify as "scientific" or "technical . . . knowledge" within the meaning of Rule 702. *See Golod v. Hoffman La Roche*, 964 F. Supp. 841, 860-61 (S.D.N.Y. 1997). "Instead, it is, at most, scientifically-grounded speculation: an untested and potentially untestable hypothesis." *Id.* And absent admissible evidence that the Airbag Deployment RAR Sequence has occurred, or could occur, in real life (that is, evidence of general causation) there is no basis to opine that it caused a particular accident (that is, specific causation). *See, e.g.*, *In re Rezulin Prods. Liab. Litig.*, 441 F. Supp. 2d 567, 578 (S.D.N.Y. 2006) ("[E]vidence of specific causation is irrelevant without evidence of general causation.").[3]

This lack of foundation is starkest in the case of Stevick, whose testimony is arguably the most central to Plaintiffs' case that the Airbag Deployment RAR Sequence occurred. First, Stevick did no scientific physical testing to confirm Plaintiffs' theory regarding the possibility of double ignition switch rotation followed by airbag deployment. Indeed, beyond taking torque measurements of the ignition switches at issue, he limited his physical testing to sitting in his

[3] The closest Plaintiffs come to establishing that the Airbag Deployment RAR Sequence has occurred in real life is that when they assert that New GM itself identified the Breen, Frei, and Harding accidents as accidents in which the Sequence occurred. (*See* Caruso Report 12-15; *see also* McCort *Greenroad* Report 11). In each case, the airbags did not deploy despite an impact of sufficient magnitude to cause deployment and even though the CDR report indicated that the vehicle had been in "run" at the time of impact. As Plaintiffs themselves more or less acknowledge, however, New GM engineers merely *hypothesized* — and did not *confirm* — double ignition switch rotation as a possible cause of the accidents. (Pls.' Mem. 3-6; *see also* Caruso Dep. 128 ("That was GM's assumption at the time, that [double ignition switch rotation] was a postulated reason to explain this."). New GM's hypothesis that the Airbag Deployment RAR Sequence was a possibility plainly "does not constitute 'scientific knowledge' within the meaning of *Daubert*." *In re Mirena*, 169 F. Supp. 3d at 430. Accordingly, it cannot serve as the evidence of general causation necessary before a specific causation opinion can be reliably rendered. *See, e.g.*, *In re Rezulin*, 441 F. Supp. 2d at 578.

own parked car and deliberately turning the ignition switch backward and forward with both his knee and his hand. (Bartoszek Decl., Ex. 6 ("Stevick Dep."), at 126-27, 135). This undocumented assessment — done without any measurement tools — served as the sole basis for Stevick's perception that it was easier to rotate the ignition switch from "accessory" into "run" than the reverse. (On top of that, Stevick was actually attempting at the time to evaluate the difficulty of turning the ignition switch from "run" into "accessory" and was only incidentally returning the key to the "run" position between attempts. (Stevick Dep. 127 ("I was only attempting to go from 'Run' to 'Accessory,' but I noticed that it was easier to go the other way than 'Run' to 'Accessory.'").) An expert's reliance "primarily upon his own senses," however, is generally "not scientific and does not amount to reliable expert testimony." *In re Mirena*, 169 F. Supp. 3d at 440; *see also In re C.R. Bard, Inc.*, 948 F. Supp. 2d 589, 604-05 (S.D. W. Va. 2013) (excluding opinions "based on nothing more than [an expert's] personal, unscientific observation and opinion that 'it's obvious'" that general causation was possible, because those conclusions were "the type of 'subjective, conclusory approach that cannot reasonably be assessed for reliability'"). More strikingly, Stevick testified that the *only* real-world instances of double ignition switch rotation with airbag deployment of which he was aware were the two accidents at issue here — the Garza and Greenroad accidents — opining, circularly, that because the car in each case exhibited issues with its power steering and power brakes, the posited causation sequence must have occurred.

Second, given that Plaintiffs and their experts proffer no evidence to support the proposition that the Airbag Deployment RAR Sequence has occurred in the real world — that is, evidence of general causation — they assume the very conclusion that they are trying to prove. It is well established that the scientific method "is based on generating hypotheses and testing

them to see if they can be falsified." *Daubert*, 509 U.S. at 593. McCort, however, revealingly testified that testing was not "needed" to confirm the timing that would be required to complete an Airbag Deployment RAR Sequence because "the physical evidence and the testimony that there was an inability to steer the vehicle" sufficed to show that "[i]t happened." (McCort Dep. 86-87). And in identifying when during an accident sequence the rotation back to "run" might have occurred, he did little more than work backwards from the airbag deployment, subtracting the 2.5 seconds that the airbags would have needed to initialize. (*See, e.g.*, McCort Dep. 162 (testifying that Greenroad's ignition switch rotated "at some point after the apex of the bridge and prior to the last distance at which she would still have the 2-1/2 seconds for it to come back on")). Similarly, Stevick opined that that double rotation occurred in *Garza* because "[w]e had the air bag go off, and there's no question it was turned off." (Stevick Dep. 133). Such testimony does not reveal the scientific method at work; instead, it reveals Plaintiffs' experts to be "reverse-engineering a theory to fit the desired outcome." *In re Mirena*, 169 F. Supp. 3d at 430; *see also, e.g.*, *Faulkner v. Arista Records LLC*, 46 F. Supp. 3d 365, 381 (S.D.N.Y. 2014) ("[M]ethodology . . . aimed at achieving one result . . . is unreliable, and . . . must be excluded.").

Third, and related, each expert's opinions regarding the likelihood of double rotation in the *Garza* and *Greenroad* cases are, at bottom, connected to the analyses he actually performed and the existing data regarding ignition switch rotation "only by the *ipse dixit* of the expert." *Joiner*, 522 U.S. at 146. For instance, McCort details the reasoning and methodology by which he reaches his opinions regarding the physical sequence and vehicle speed of each accident. But when it comes to his ignition switch rotation opinions, he simply pronounces, without further analysis, that because of the apparent failure of the power systems in each Cobalt, the likeliest cause of each accident and subsequent airbag deployment was an Airbag Deployment RAR

Sequence. McCort testified that he had not done anything — beyond driving a Saturn Ion "around the block" in a nonscientific assessment to understand how it worked — "to try to figure out how the electric power steering system reacts to changes in the ignition switch state," (McCort Dep. 93-94), and it is unclear how McCort could have bridged the gap between noting the purported power failures in both Plaintiffs' cars and concluding that double ignition switch rotation must have occurred. *See, e.g.*, *Dreyer v. Ryder Auto. Carrier Grp., Inc.*, 367 F. Supp. 2d 413, 416-17 (W.D.N.Y. 2005) ("An otherwise well-credentialed expert's opinion may be subject to disqualification if he . . . cannot explain the technical basis for his opinion.").[4] Similarly, Stevick testified that his conclusions that the Airbag Deployment RAR Sequence could occur generally and did occur in both cases were based only on "logical deduction." (*See, e.g.*, Stevick Dep. 134 ("[T]he logical deduction and simply working through this from a scientific point of view using the scientific method, there's no question this can happen."); *id.* at 137 ("[W]hen you logically think through it, there's no question it can happen. The most difficult part is from 'Run' to 'Accessory.' The rest is downhill. Very simple and logical deduction, the scientific method."); *id.* at 139 ("And again, because of logical deduction, once you accomplish the most difficult task, and you have motivation to do the second part, I think there's probably been many instances. And I think that's following logical deduction and the scientific method.")). At most, however, the witnesses' analyses establish that Plaintiffs' theory is *consistent* with the facts in the Garza and Greenroad accidents. They do not establish that double rotation is the likeliest scenario — let alone that it actually occurred. But mere "possibility is not proof of causation."

[4] Caruso's opinions about the Airbag Deployment RAR Sequence having occurred in the *Greenroad* case are based on two foundations: McCort's opinion that double ignition switch rotation caused the two accidents at issue and New GM's prior assessments of the Breen, Frei, and Harding accidents. (Caruso Report 15-16). Given the unreliability of both, Caruso's opinions are unreliable as well.

In re Mirena, 169 F. Supp. 3d at 430 (quoting *In re Accutane Prods. Liab.*, 511 F. Supp. 2d 1288, 1296 (M.D. Fla. 2007)); *see also, e.g.*, *Joiner*, 522 U.S. at 146 (holding that expert testimony should be excluded where there is "too great an analytical gap" between the expert's data and analysis and his conclusions).

Fourth, the experts' proposed testimony is not "sufficiently tied to the facts of the case" — that is, it does not "fit" the facts of the two cases at issue in material ways. *Daubert*, 509 U.S. at 591. Stevick, for example, testified extensively about his view that "*the primary reason* why it is possible in a crash sequence that the key rotated from 'Run' to 'Accessory' and back to 'Run' is that the driver would intentionally use their hand to turn the key back to 'Run' during the crash sequence." (Stevick Dep. 132 (emphasis added); *see also* Stevick Dep. 153). He opined that "moving from 'Accessory' to 'Run' is easier to accomplish than 'Run' to 'Accessory'" "[p]rimarily" because a driver "may very well just reach in with [her] hand and move it." (Stevick Dep. 130). And he described his analysis — that "clearly, someone reaching in with their hand is far easier than a knee knock" — as a form of "logical deduction . . . , which is part of the scientific method." (Stevick Dep. 131). Putting aside whether there is evidentiary support for that theory in general (Stevick, for instance, cites no evidence of how quickly the loss of a car's power would register with a driver), there is no evidence that either Plaintiff deliberately rotated the key in the ignition switch during the course of her accident sequence. Neither Plaintiff indicated any perception at the time that her ignition switch had moved from "run" to "accessory." Additionally, both Plaintiffs reported that they made sustained, although ultimately unsuccessful, efforts to turn their steering wheels. In fact, Garza denied in her deposition that she had at any point removed her hands from the wheel. (Bartoszek Decl., Ex. 12, at 42). Admittedly, Stevick did testify that a driver in a fast-paced accident situation "may

very well use [her] hand and not even remember it because it all happened so fast." (Stevick Dep. 129-30). But such pure speculation, untethered to the facts in the record, is not a proper basis for reliable scientific testimony. *See, e.g.*, *Daubert*, 509 U.S. at 590 ("The word 'knowledge' connotes more than subjective belief or unsupported speculation."); *cf. Macaluso v. Herman Miller, Inc.*, No 01-CV-11496 (JGK), 2005 WL 563169, at *8 (S.D.N.Y. Mar. 10, 2005) (holding that an expert's analysis fails to meet the *Daubert* standard where "it is based on incorrect factual assumptions that render all of [the expert's] subsequent conclusions purely speculative").[5]

More fundamentally and revealingly, Plaintiffs' experts' testimony that double rotation occurred during the Garza accident sequence is inconsistent with the undisputed timing of the accident sequence. Plaintiffs and their experts concede that the airbag system requires 2.5 to 3 seconds to reinitialize before the airbag will deploy on impact and further acknowledge that if the ignition switch rotates out of the "run" position only momentarily before returning to "run," the power and airbag systems will remain functional despite the switch rotation. (Pls.' Mem. 3; McCort Dep. 43 ("[I]t's my understanding if you [rotate the ignition switch from "run" to "accessory" and back] quickly, the car comes right back on."); *see also* Caruso Dep. 141). Based solely on these concessions, it is plain that the full Airbag Deployment RAR Sequence requires

[5] Stevick also speculates that the rotation back to "run" could have been caused by knee-to-key interaction. (Stevick Report 21, 23-24). He bases this belief largely on his own informal and undocumented attempts to use his knee to bump the ignition switch out of and back into the "run" position while sitting in a parked car. But Stevick is significantly taller than Garza and Greenroad, and his own ability to shift an ignition switch back into "run" via knee-to-key interaction is therefore inapplicable to these cases. Moreover, the possibility of a knee-to-key interaction in the *Garza* case is contradicted by Garza's deposition testimony and the CDR report, both of which indicate that she was continually depressing the brake pedal throughout the accident sequence. (McCort *Garza* Report 12; *see also* Bartoszek Decl., Ex. 12, at 75). Stevick agreed that "when a driver is applying pressure on the brake pedal, [her] knee is pressing down and moving away from the ignition switch." (Stevick Dep. 214; *see also* Def.'s Mem. 37 n.100).

more than 2.5 seconds to occur, and it may require more than 3 seconds depending on the reinitialization period of a given GM vehicle's airbag systems. Yet the CDR data in the *Garza* case indicates that there was, at *most*, a three-second window in which the full Airbag Deployment RAR Sequence could have taken place, (McCort *Garza* Report 12), and Plaintiffs' experts agreed that the window might have been even narrower: As Caruso confirmed in his deposition, the SDM records snapshots of the vehicle status in one-second increments leading up to deployment, rather than precisely identifying the instant in which the event occurred, and, thus, the crash with the Mustang could have happened at any time between -1 and 0 seconds from impact on the CDR report. (Caruso Dep. 53, 55; *see also* Def.'s Mem. 36 n.97). Accordingly, if the actual deployment event occurred 500 milliseconds or less after -1 on the CDR report, Plaintiffs' hypothesized sequence of events is concededly physically impossible, even without any evidence of the minimum length of time the ignition switch needs to be in "accessory" or "run" before power and airbag systems will be lost.

Assuming the full three seconds were available for the Airbag Deployment RAR Sequence to occur, Plaintiffs' experts nonetheless offered no reconstruction of the accident timing through which a jury could infer that enough time passed between the claimed loss of power and the subsequent airbag deployment for the Airbag Deployment RAR Sequence to occur in full.[6] Plaintiffs point to the 2.6 seconds between impact with the Mustang (the deployment event) and impact with the guardrail (a nondeployment event) to suggest that there was enough time for the Airbag Deployment RAR Sequence. (Pls.' Mem. 23-24). The relevant

[6] Garza's own testimony gives no indication of the amount of time that passed between her alleged loss of power steering and impact with the Mustang. (Lusztig Decl., Ex. 22, at 70 ("I just remember driving, and then we were getting close to the car, and I, I was telling my cousin, Claire, that I couldn't move the steering wheel. And then we hit.")).

window for assessing whether double ignition switch rotation could have occurred, however, is not the time between the deployment and nondeployment events, however, but the time between the loss of control and the impact with the Mustang, the step in the accident sequence that resulted in airbag deployment. In the Greenroad case, Plaintiffs' experts offer no testimony whatsoever about the timing of the accident sequence or when each posited ignition switch rotation might have occurred, so there is no basis at all from which to conclude that the Airbag Deployment RAR Sequence was possible.

In fact, Plaintiffs cite no evidence whatsoever about the minimum length of time the ignition switch would actually need to be in the "accessory" position before the engine would stall. As noted above, Plaintiffs' experts agree that if the ignition switch only momentarily rotated from "run" to "accessory" before returning to "run," this key state change would be insufficient to cause a loss of power systems; that is to say, there is some minimum amount of time the ignition switch must be in "accessory" before a loss of power and airbag systems will occur. But Plaintiffs' experts offer no opinions about the duration of this window. Caruso, Plaintiffs' automotive safety systems expert, was responsible for analyzing the CDR reports and thus would have been a logical person to offer such an analysis, but he confirmed in his deposition that he had not done any testing of this sort. Plaintiffs argue that it was not Caruso's job to "perform tests to see if the sequence would be feasible" and that, instead, "Caruso deferred to McCort's accident reconstruction to analyze the timing sequence." (Pls.' Mem. 31). But the two timing questions are distinct: McCort offered a limited analysis of the timing that purportedly *occurred* in each accident, which is separate from the more basic question of how long the ignition switch would need to be in the "accessory" position before an Airbag Deployment RAR Sequence would be physically possible at all. McCort's analysis regarding

whether the Airbag Deployment RAR Sequence was "feasible" in each accident is unhelpful without any baseline against which to measure feasibility.

Finally, Plaintiffs' experts' opinions are unreliable because they failed to consider, let alone rule out, obvious alternative explanations for at least one of the two accidents at issue: the Garza accident. McCort testified to his belief that Garza's initial loss of control was the result of ice on the bridge, which caused three other cars to spin out of control immediately before Garza's Cobalt did so. (McCort Dep. 341; *see also* Caruso Dep. 94). Despite this determination, McCort inexplicably did not consider whether the road conditions might *also* have prevented Garza from subsequently regaining control of the vehicle or explore any other alternative explanations for the vehicle stall, such as torque converter lockup. (*See* McCort Dep. 386; Def.'s Mem. 29-30; Def.'s Reply 11; *see also* Caruso Dep. 136, 148-49). Although Plaintiffs' experts were not required to evaluate and reject *every* possible alternative cause of Garza's crash, their failure to consider such "obvious alternative causes" for the crash with the Mustang — particularly given their own concession that the icy road conditions caused the initial loss of control — renders their opinions unreliable. *See GM Scheuer Op.*, 2015 WL 9480448, at *2 n.1; *Bee v. Novartis Pharm. Corp.*, 18 F. Supp. 3d 268, 306 (E.D.N.Y. 2014) (emphasis omitted).[7]

[7] New GM argues that Plaintiffs' experts also failed to consider in the *Greenroad* case that Greenroad, an eighty-nine-year-old woman suffering from benign positional vertigo and taking anti-dizziness medication, may have suffered a dizzy spell that caused the accident. (Def.'s Mem. 16, 30-31). This argument may have intuitive appeal, but it is unsupported by the record, which contains no indication in the post-accident reports or deposition testimony that Greenroad reported experiencing dizziness in the lead-up to her accident. In the Court's view, therefore, there was no reason to consider a hypothetical dizzy spell as an "obvious alternative cause[]" of Greenroad's accident. *See GM Scheuer Op.*, 2015 WL 9480448, at *2 n.1 (emphasis omitted).

CONCLUSION

In short, to the extent that McCort, Stevick, and Caruso opine that the Airbag Deployment RAR Sequence occurred in the Garza and Greenroad accidents, their testimony is unreliable and, thus, inadmissible under *Daubert* and its progeny. In the absence of admissible expert evidence, Plaintiffs concededly cannot prove that the Airbag Deployment RAR Sequence occurred. It follows that they cannot prove that an ignition switch defect — assuming one existed in their cars — caused or contributed to their accidents and injuries and, thus, that New GM's motions for summary judgment must be and are granted. *See Amorgianos*, 303 F.3d at 268; *Romo*, 798 F. Supp. 2d at 810.

The Court recognizes that these conclusions may have a significant impact on a swath of cases now pending in the MDL and, thus, does not reach them lightly. Nevertheless, the Court's role in applying *Daubert*'s "gatekeeping requirement" is "to ensure the reliability and relevancy of expert testimony" and "to make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field," *Kumho*, 526 U.S. at 152, and Plaintiffs' experts' opinions regarding the Airbag Deployment RAR Sequence do not pass muster. Accordingly, those opinions must be, and are, excluded, and the *Garza* and *Greenroad* cases must be, and are, dismissed as a matter of law.

By prior Order, the Court directed the parties to address the next steps for personal injury and wrongful death cases in the MDL in letters due by the earlier ot January 3, 2018, or one week from the filing of this Opinion and Order. (Docket No. 4831). Upon reflection, the parties are granted until **January 4, 2018**, at **5 p.m.** to file those letters.

Plaintiffs' motion for oral argument and *Daubert* motion are denied as moot. The Clerk of Court is directed (1) to terminate 14-MD-2543, Docket Nos. 3708, 3711, and 3772; and 14-

CV-5810, Docket No. 462; (2) to terminate Vivian Garza as a party in *Abney et al. v. General Motors*, No. 14-CV-5810; and (3) to close *Greenroad v. General Motors*, No. 15-CV-1626.[8]

SO ORDERED.

Date: December 28, 2017
New York, New York

JESSE M. FURMAN
United States District Judge

[8] Because the Court concludes — without reference to the proffered opinions of New GM's expert witnesses — that summary judgment against Plaintiffs is appropriate, it is unnecessary to consider Plaintiffs' own *Daubert* motion to exclude those experts' testimony.