

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

JIQIN YANG, Personal Representative of the heirs of FENGYUN WU, deceased)	
)	
Plaintiff,)	
)	
v.)	No. 14 C 6482
)	
)	Judge Rebecca R. Pallmeyer
AIR CHINA LIMITED and THE BOEING COMPANY,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

Plaintiff Jiqin Yang is the son of Fengyun Wu, who died in Beijing on November 30, 2012. Ms. Wu collapsed and died on the jet bridge while exiting an Air China flight from Boston. No one witnessed Ms. Wu's collapse. Instead, two flight staff found her nonresponsive on the jet bridge after a passenger told them someone had fainted. The Air China employees administered first aid, and a doctor arrived and attempted to resuscitate Ms. Wu. They were unable to save her, and she was declared dead less than an hour after exiting the plane, never having left the jet bridge. In this lawsuit, Yang has sued Air China and the airplane manufacturer, Boeing Company, for his mother's wrongful death.

The centerpiece of Yang's case is the testimony of plaintiff's expert, Dr. Harris, a physician with nearly four decades of experience in emergency rooms. Dr. Harris concludes that Ms. Wu died from a fall, caused by slipping while she stepped down from the door of the aircraft onto the jet bridge. Harris reached this conclusion after reviewing two photographs of Ms. Wu's body on the jet bridge, the depositions of the flight staff who attended to her, Air China's accident report, and Ms. Wu's medical records. Air China and Boeing (jointly, "Defendants") contend that this opinion is speculative and not based in a sound methodology. They argue that Ms. Wu could have died of several other causes, including a pulmonary embolism or a heart attack, and that Dr. Harris narrowed the cause of Ms. Wu's death to a fall from the aircraft door without sufficient scientific basis.

Defendants have jointly moved to strike Dr. Harris's opinion [67], and each have separately moved for summary judgment. (Boeing Mot. [70], Air China Mot. [77].) Plaintiff also moved for summary judgment against Air China [82]. For the reasons below, the court partially excludes Dr. Harris's opinion, grants summary judgment to both Defendants, and denies Plaintiff's motion for summary judgment.

BACKGROUND

I. The Incident

Early in the morning of November 30, 2012, Ms. Wu disembarked from an overnight flight from Boston to Beijing, operated by Air China on a Boeing 777-300ER aircraft. (Def. Air China's Statement of Facts in Supp. of Summ. J. [hereinafter "Air China SOF"] [79], at ¶¶ 12, 15.) She exited the plane shortly after 5:30 a.m. Beijing time, leaving her seat in the middle of the aircraft to exit through the door in the front of the plane. (*Id.* ¶¶ 16, 19, 21–22.) Two Air China employees, flight attendant Jiang Shan and chief "purser"¹ Gao Yi, were stationed by the door. (*Id.* ¶ 24.) The parties disagree about whether Shan and Yi could see individuals disembarking from the aircraft (*id.* ¶ 26; Pl.'s Resp. to Air China SOF [98], ¶ 26), but there is no question that neither actually saw the event that gives rise to this case. Towards the end of the deboarding process, Shan and Yi heard someone—unknown to the parties—say that a passenger had fainted. (Pl.'s Statement of Add'l Undisputed Facts That Require Denial of Air China's Mot. for Summ. J. [hereinafter "Pl.'s SOF to Air China"] [99], at ¶ 7.) Shan left the plane to find Ms. Wu lying on the jet bridge, approximately six to ten feet from the aircraft's door, at about 5:35 a.m. (Air China ¶¶ 32–33; Pl.'s SOF to Air China ¶ 9.) Yi directed the captain of the aircraft to summon medical personnel. (Pl.'s Resp. to Air China SOF ¶ 35.) Ms. Wu was, at this time, unresponsive, pale, sweating and breathing rapidly. (Air China SOF ¶¶ 37–38.) Yi and Shan administered oral nitroglycerin (Boeing Rule 56.1(a) Statement of Material Facts

¹ A purser is a person on a ship (or aircraft) "in charge of accounts and documents." *Purser*, BLACK'S LAW DICTIONARY (10th ed. 2014).

[hereinafter “Boeing SOF”] [73], ¶ 21), but by 5:49 a.m., Ms. Wu had no pulse, no heartbeat, and no vital signs. (Pl.’s SOF to Air China ¶ 9.) A doctor, whose identity is unknown,² arrived at 5:50 a.m. (Pl.’s SOF to Air China ¶ 9.) Ms. Wu was declared dead at 6:20 a.m. (Pl.’s SOF to Air China ¶ 11.) At the time of her death, Ms. Wu was 70 years old. (Air China SOF ¶ 13.)

Shuang Yang, Ms. Wu’s daughter, was at the airport to pick Ms. Wu up. (See Pl.’s SOF to Air China ¶ 12.) When Ms. Wu did not meet her as expected, Ms. Yang called her mother’s cell phone. (*Id.*) Another flight attendant who had arrived to assist on the jet bridge, Chen Cheng, answered Ms. Wu’s phone. (See Air China Resp. to Pl.’s SOF [124], ¶ 12.)³ Shuang Yang learned that her mother had fainted and was not showing “signs of life.” (See Pl.’s SOF to Air China ¶¶ 12–14; see Air China Resp. to Pl.’s SOF ¶ 12–14.) Air China asserts that during this conversation, Shuang Yang told Cheng that Ms. Wu had a condition “related to her arteries” (Air China Resp. to Pl.’s SOF ¶ 12), but Shuang Yang herself recalled saying that her mother had no illnesses. (Pl.’s SOF to Air China ¶ 12.)

Shuang Yang was eventually able to get to the jet bridge where her deceased mother was lying. (Pl.’s SOF ¶ 15.) When asked at her deposition what she recalled about the scene, Shuang Yang remembered very little:

- Q. Did you see the airplane door?
- A. I wasn't paying attention.
- Q. Did you see where the airplane door connected to the jet bridge?
- A. I did not pay attention to that. I was only paying attention to my mother.
- Q. Did you see the floor outside of the red carpet next to the airplane?
- A. No, I wasn't paying attention to that.
- Q. And did you see the bottom of the airplane door?
- A. I did not see that.

² Air China claims that Plaintiff identified this doctor as Jian Xuerong, but Plaintiff’s deposition is somewhat ambiguous as to whether he meant that this doctor was Jian Xuerong, or meant that another doctor that he met later was Jian Xuerong. (Dep. of Jiqin Yang, Ex. A to Air China SOF [79-2], at 128:24–129:18; 138:1–139:2.)

³ Plaintiff submits only that Shuang Yang spoke to an “unidentified man” (Pl.’s SOF to Air China ¶ 12), who Air China identifies as Chen Cheng. (Air China’s Resp. to Pl.’s SOF ¶ 12.) It is unclear if Plaintiff agrees that the individual in question is Chen Cheng, as this assertion appears only in Air China’s response to Plaintiff’s statement of facts.

(Dep. of Shuang Yang, Ex. C to Air China SOF [hereinafter “Shuang Yang Dep.”] [79-4], at 64:20–65:7.)

The record contains two photographs of Ms. Wu’s body, including one with the aircraft door in the background. The photo shows that passengers leaving the aircraft would need to take a step down from the aircraft onto the jet bridge to exit. (Boeing SOF ¶ 24; Photograph [75] (filed under seal).) Neither party has adequately explained the provenance of these photographs. Plaintiff asserts that the photographs were given to Shuang Yang and her brother, Plaintiff Jiqin Yang, by the police in Beijing (Pl.’s SOF to Air China ¶¶ 17–18), but Plaintiff does not know exactly who took them. (Dep. of Jiqin Yang, Ex. A to Air China SOF [hereinafter “Pl.’s Dep.”] [79-2], at 156:24–157:3; 161:16–17.) Shuang Yang, who had observed the scene, struggled to verify the contents of the photographs:

Q. When you saw your mom, your mother, is this the area that you see in the picture on the red carpet, the area that you saw your mother lying on the ground?

A. I’m not very sure.

Q. Can you point to me on the picture where you saw your mother when you saw your mother at the bridge?

A. I don’t remember. I wasn’t paying attention to those.

Q. What you see in the picture here, is that about where you think your mother was lying on the ground when you saw her?

MS. WISNER: Objection, asked and answered.

THE WITNESS: I’m not very sure.

(Shuang Yang Dep. 67:6–20.)

The Health Bureau of Beijing issued a death certificate, signed by someone named Jiang Xuerong, which was translated into English. (Air China SOF ¶ 49.) The certificate describes Ms. Wu’s death as “sudden death,” caused by “pulmonary embolism with high probability not exclude myocardial infarction,” the result of “hyperlipidemia and Arteriosclerosis.” (*Id.*) Commonly known as a heart attack, a myocardial infarction is the loss of circulation to the muscles of the heart and subsequent death of heart muscle. (Dep. of Dr. Gary B. Harris, Ex. P to Air China SOF [hereinafter “Harris Dep.”] [79-17], at 89:17–90:1.) A pulmonary embolism is a blood clot in the circulatory vessels of the lungs. (*Id.* at 43:3–6.) The parties do not know what

examination Xuerong performed, or what records Xuerong reviewed, to reach the conclusions in the death certificate. (Pl.’s Statement of Add’l Facts that Require Denial of Boeing’s Mot. for Summ. J. [hereinafter “Pl.’s SOF to Boeing”] [95], at ¶ 27.) There is no evidence that anyone performed a forensic examination or autopsy of Ms. Wu. (Boeing SOF ¶ 37.)

II. Procedural History

Jiqin Yang, one of Ms. Wu’s two heirs, brought suit on her behalf. (Air China SOF ¶ 29.) He claims that Ms. Wu died because she tripped as she was stepping out of the airplane due to the significant step down between the airplane door and the jet bridge, made more dangerous because the metal door sill was slippery. (See Am. Compl. Count I, ¶ 7.) He seeks to hold Air China and Boeing responsible for the accident: Air China, for its failure to prevent the accident and Ms. Wu’s death (Compl. Count I ¶ 8), and Boeing, as the manufacturer, for its failure to properly design the aircraft door to avoid water accumulation or provide anti-slip treads. (See *generally* Am. Compl. Count II, III.)

Plaintiff alleges that Boeing knew that water accumulated on the door sills because a FedEx pilot had contacted Boeing in 2009, three years before Ms. Wu’s death, complaining that ice formed on the door sills of the Boeing 777F plane model when “transiting” (the court is unsure whether this means moving in the air, on the ground, or both) in “cities with frozen precipitation on the ground (primarily snow).” (E-mail from Captain Mike Jurgensen to Rick Collella, Boeing Commercial Aviation Services (Dec. 21, 2009), Ex. C to Pl.’s SOF to Boeing [95-3].) Boeing’s representative responded to the pilot’s concern by explaining that treads could not be installed in the door sills because they could potentially interfere with the exit slides. (E-mail from Rick Collella to Captain Mike Jurgensen, Boeing Commercial Aviation Services (Dec. 22, 2009), Ex. C to Pl.’s SOF to Boeing [95-3].) Boeing instead advised that the airlines keep the door closed as much as possible and clean up water before it freezes. (*Id.*) Boeing argues that these communications are irrelevant, as there is no evidence that it was snowing the morning that Ms. Wu exited the aircraft, and further notes that the 777F—the model that the

FedEx pilot complained of—is a different model than the 777-300ER aircraft at issue here. (Boeing Resp. to Pl.’s SOF [118], at ¶ 5.) No evidence in the record establishes whether the doors on the two types of aircraft are the same. Plaintiff claims that because it was “cold” in Beijing (no party mentions how cold it was, exactly) when the flight arrived at 5:30 a.m (Pl.’s SOF to Air China ¶ 4), the door sill would have become wet after “the cold aircraft door sill came into contact with humid air on the [jet] bridge and resulted in condensation accumulating on the aircraft door sill.” (Pl.’s Mem. of Law in Opp. to Air China’s Mot. for Summ. J. [hereinafter “Pl.’s Resp. to Air China”] [97], at 14.) Beyond the e-mails between Boeing and FedEx, Plaintiff offers no evidence or expert testimony to support this assertion. Plaintiff also has not identified any specific basis in the record for his conclusion that the air on the jet bridge was humid, or that the door sill was itself cold. (*See id.*)⁴

To establish his case against Air China and Boeing, Plaintiff retained Dr. Greg Harris, an emergency room physician with nearly four decades of experience, almost all of that time devoted to treating patients in an ER. (Letter from Gary Harris to Alexandra Wisner (Feb. 27, 2016), Ex. K to Pl.’s SOF to Boeing [hereinafter “Harris Report”] [95-11], at 1; Harris Dep. 127:11–19.) At the time he provided his curriculum vitae, Dr. Harris was working as an attending emergency physician in the emergency departments of several hospitals in Illinois, and had been consistently working as an attending emergency physician since 1976. (Harris Report 8–9.) He did not report any publications, but relies on his substantial practice experience: Dr. Harris estimated that he has seen more than 200,000 patients in 80,000 hours of practice. (*Id.* at 9.)

Dr. Harris reviewed the record in the case, which included Ms. Wu’s medical records, the depositions of Air China employees Shan and Yi, an accident report produced by Air China, the

⁴ If TimeandDate.com is to be believed, it was 28 degrees Fahrenheit at 5:00 a.m. in Beijing on November 30, 2012. *Beijing Weather History for November 30, 2012*, TIMEANDDATE.COM, <https://www.timeanddate.com/weather/@1816670/historic?month=11&year=2012> (last accessed July 24, 2017).

death certificate, and the photographs of Ms. Wu's body on the jet bridge. (Harris Report 1.) He endorses Plaintiff's theory that Ms. Wu died of a fall from the aircraft door to the jet bridge below, which he estimates was a drop of twelve to fourteen inches. (Harris Dep. 171:2–13.) Dr. Hossein Ardehali, the expert jointly retained by Defendants Boeing and Air China, disagrees: Dr. Ardehali believes that Ms. Wu died of a pulmonary embolism or myocardial infarction—consistent with the death certificate—and that it is unlikely that a fall caused Ms. Wu's death. (Letter from Hossein Ardehali to Peter Kim, Ex. L to Pl.'s SOF to Air China [hereinafter Ardehali Report] [95-12], at 2.)

Dr. Harris cites three reasons for his belief that Ms. Wu's death was caused by a fall. First, Dr. Harris found evidence in the record that Wu was foaming at the mouth when she was discovered on the jet bridge.⁵ Dr. Harris explained at his deposition that foaming at the mouth is primarily a symptom of traumatic head injury: the head injury causes a seizure, which in turn causes foaming at the mouth. (Harris Dep. 126:2–13.) A pulmonary embolism would not, in Dr. Harris's estimation, ordinarily cause foaming at the mouth, though he admits it is possible. See Harris Dep. 276:21–277:6 (“Once again, it's within the realm of possibility, but it's not typical for what you would see. You see foaming at the mouth, vastly more common in blunt head injuries in poisoning within asphyxiations.”). Harris was not asked at his deposition whether myocardial infarctions ever present with this symptom. Second, the flight attendants who attended to Ms. Wu testified that she was breathing heavily and sweating, which Dr. Harris observed is consistent with head trauma (Harris Dep. 337:23–339:23), though he acknowledged that these symptoms are consistent with myocardial infarction, as well. (Harris Dep. 120:3–20; 121:17–18 (symptoms of myocardial infarction include diaphoresis—sweating and clamminess—and breathing rapidly).) Third, Dr. Harris found, from a photograph of Ms. Wu's body, that she had

⁵ The court has not been able to find the source of this fact, but neither Defendant disputes it.

bruising on the right side of her head, which he testified was consistent with a fall. (Harris Dep. 234:16–19.)

Dr. Harris concludes that Ms. Wu was injured by falling from the airplane door to the jet bridge below. (Harris Report 4.) Harris does not claim to be an expert in aircraft design or accident reconstruction (Harris Dep. 300:20–301:2; 324:6–8); his conclusion that she fell while exiting the aircraft door is based on his medical observation that shorter people who are overweight, as Ms. Wu was, are at risk of falling when taking a step down. (Harris Dep. 23:14–24:10.) He acknowledged, however, that Ms. Wu's symptoms were also consistent with a fall that occurred after she had successfully descended from the aircraft door:

- Q. Dr. Harris, if somebody successfully stepped out of the airplane and lost their balance while they were on the jet bridge, would it be possible for them to have bruising on their face and their torso when they fell?
- A. Yeah, that could be.

(Harris Dep. 256:6–13.)

Dr. Harris rules out the two causes of death identified in the death certificate and by Defendants' expert, Dr. Ardehali: a pulmonary embolism or myocardial infarction. Pulmonary embolisms, Harris testified, cause bruising on the torso. (Harris Dep. 236:22–237:19.) Dr. Harris examined a photograph of Ms. Wu's torso with her shirt pulled up to her breastbone, and found no bruising consistent with an embolism. (*Id.*) Second, Dr. Harris testified that persons suffering from a pulmonary embolism or myocardial infarction would typically show signs of distress before suddenly dying. (Harris Dep. 287:12–23). The record, limited though it is, shows no indication that Ms. Wu was in any distress before the incident: Ms. Wu appeared well when, at some point during the flight, she purchased an item in the duty-free catalog from Chen Cheng. (Harris Dep. 286:17–287:1; Decl. of Chen Cheng [65], at ¶¶ 15–17). She did not request any medical assistance on the flight. (Air China SOF ¶ 17.) Furthermore, Dr. Harris pointed out that although those two conditions can cause sudden death, such a result would be rare. (Harris Dep. 274:15–275:24 (persons with massive pulmonary embolism could become unconscious, but vast majority with *sub*massive embolisms are still aware), Harris Dep. 276:5–

20 (“The vast, vast majority of people having an acute myocardial infarction do not expire suddenly, become unconscious, stop breathing.”).)

Finally, Dr. Harris found that, on balance, Ms. Wu’s medical history did not suggest that she was at risk for a pulmonary embolism or heart attack. She had a knee replacement surgery in November 2011 (Harris Dep. 65:11–13), which could potentially increase the risk of pulmonary embolism (Harris Dep. 55:8–11), but because she was prophylactically treated for blood clots after her knee surgery and she had no subsequent complaints, Dr. Harris concluded that she was not at risk. (Harris Dep. 54:20–55:7.) Ms. Wu also was found to have high cholesterol in tests in October 2012, just a month before her death. (Lahey Clinic, Summary of Results for Outpatient: Fengyun Wu (Oct. 23, 2013) [113], at 4.) Dr. Harris acknowledges that high cholesterol is a risk factor for heart attack, but concluded that Ms. Wu was not at greater risk for a heart attack because she was on a statin medication to control her cholesterol, and her cholesterol levels, though high, were not of great concern for a person of her age. (See Harris Dep. 91:2–11, 108:3–21.) The medical examiner noted in the death certificate that Ms. Wu had hyperlipidemia—how this was determined, as noted above, is unknown to the parties and the court—but Dr. Harris explained hyperlipidemia is different from high cholesterol and is only “remotely connected” to increased risk of heart attacks. (Harris Dep 90:3–91:1.)

Having ruled out the two causes of death proposed by the medical examiner, Harris concludes that Ms. Wu’s death was consistent only with a fall caused by height differential between the airplane door and the jet bridge. (Harris Report 3.) That opinion, in Plaintiff’s estimation, establishes liability on the part of both Boeing and Air China. As to Boeing, Plaintiff contends that the airplane door was unreasonably dangerous and caused Ms. Wu’s injury, making Boeing liable for her death on a defective products theory. See *Mikolajczyk v. Ford Motor Co.*, 231 Ill. 2d 516, 525, 901 N.E.2d 329, 335 (2008). As to Air China, Plaintiff argues that Ms. Wu’s death was caused by an “accident” within the meaning of the Montreal Convention, the international treaty that creates liability standards for international airlines in the

carriage of passengers. Convention for the Unification of Certain Rules for International Carriage by Air, art. 17, May 28, 1999, S. Treaty Doc. No. 106-45, 1999 WL 33292734 (hereinafter “Montreal Convention”). Under the Montreal Convention, airlines are liable for any “accident” that injures a passenger on the plane or during the disembarking process, but an “accident” does not include “the passenger’s own internal reaction to the usual, normal, and expected operation of the aircraft” *Air France v. Saks*, 470 U.S. 392, 405–06 (1985). Thus, Dr. Harris’s opinion that Ms. Wu’s death was not caused by an internal cause, such as a heart attack or pulmonary embolism, but rather by an external cause—a fall caused by the door—substantiates Plaintiff’s theory that Air China is liable.

Harris did not, in his report, address the possibility that the fall could have been caused by other internal causes, such as garden-variety lightheadedness, an inner-ear problem, or simply stumbling; nor, to the court’s knowledge, was he asked about other internal causes at his deposition. Harris testified that he has treated several people who have fallen from aircraft doors as Ms. Wu did, though none of them died from the fall. (Harris Dep. 283:15–24.) Defense counsel did not ask what models of aircraft were involved in the other falls.

Defendants have moved to strike Dr. Harris’s expert opinion. (Defs.’ Joint Mot. to Strike Expert Report of Dr. Gary Harris [67].) They argue (1) that Harris’s methodology is too speculative, as he does not identify any methodology beyond the application of his experience to the record, and (2) that even if his methodology is appropriate, he has failed to accurately apply it, as he did not systematically rule out other potential causes. Specifically, Defendants argue that Dr. Harris offered no basis for the conclusion that Ms. Wu’s death was caused by a fall from the aircraft door to the jet bridge, rather than falling for some other reason after having successfully stepped off the plane. Both Defendants have also moved for summary judgment, arguing, in part, that if Dr. Harris cannot conclude that Ms. Wu’s death was caused by the aircraft door, then Plaintiff can neither establish Boeing’s liability for a defective product, nor Air China’s liability for an “accident” within the meaning of the Montreal Convention because

Plaintiff has no admissible evidence that substantiates an external cause of Ms. Wu's death. (Boeing Mot. for Summ. J [70]; Air China Mot. for Summ J. [77].)

Plaintiff has also moved for summary judgment against Air China [82], and to exclude Defendants' expert, Dr. Ardehali [87]. Dr. Ardehali concluded that Ms. Wu did not die from a mechanical fall, but instead from one of the conditions listed on the death certificate: either a heart attack or pulmonary embolism. (Ardehali Report at 2.) Ardehali also disagreed with several premises of Harris's conclusion. For example, he disagrees with Harris's assertions that myocardial infarction and pulmonary embolism rarely cause sudden death; Dr. Ardehali cited several studies that demonstrate that both conditions can cause sudden death. (*Id.* at 5.) He also disagrees with Harris's belief that Ms. Wu did not have risk factors for pulmonary embolism or heart attack. Dr. Ardehali believes that her history of surgery, obesity, advanced age, and immobility during long air travel all placed her at higher risk for pulmonary embolism. (*Id.* at 7.) Dr. Ardehali also asserts that advanced age, obesity, and hyperlipidemia are risk factors for coronary artery disease, which can lead to heart attack. (*Id.* at 8). Finally, Dr. Ardehali disagrees with Harris's methods; he contends that medical practitioners would not rely on photographs to establish a cause of death as Dr. Harris did. (*Id.* at 4.) Plaintiff moved to strike Dr. Ardehali's testimony because he relied in part on the death certificate, which Plaintiff contends lacks necessary foundation, and because, in Plaintiff's view, Dr. Ardehali's conclusions about Ms. Wu's causes of death were speculative in light of the available evidence.

As noted, several motions are pending. For the reasons explained below, Defendants' motion to exclude Dr. Harris's testimony is granted in part. As Plaintiff cannot establish, without that testimony, that Ms. Wu's death was caused by Boeing's product or by an accident external to her that would make Air China liable under the Montreal Convention, Defendants' motions for summary judgment are granted.

DISCUSSION

I. Dr. Harris's Testimony Is Not Sufficiently Reliable to Establish the Location of Ms. Wu's Fall

Federal Rule of Evidence 702 governs the admissibility of expert testimony. The rule permits an expert to provide an opinion only 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 broad strokes, the court must “ascertain whether the expert is qualified, whether his or her methodology is scientifically reliable, and whether the testimony will ‘assist the trier of fact to understand the evidence or to determine a fact in issue.’” *Bielskis v. Louisville Ladder, Inc.*, 663 F.3d 887, 893 (7th Cir. 2011) (quoting FED. R. EVID. 702). The Supreme Court’s opinion in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* sets forth several non-exhaustive factors to consider in evaluating the expert’s methodology: “(1) whether the theory has been or is capable of being tested; (2) whether the theory has been subjected to peer review and publication; (3) the theory's known or potential rate of error; and (4) the theory's level of acceptance within the relevant community.” *Bielskis*, 663 F.3d at 893 (citing *Daubert*, 509 U.S. at 593–94).

Though Dr. Harris did not identify his method as such, it appears he performed a “differential etiology”—that is, he eliminated different possible causes of an injury to find the actual cause. *Brown v. Burlington N. Santa Fe Ry. Co.*, 765 F.3d 765, 773 (7th Cir. 2014). That method is not controversial, but it requires the expert to make “scientifically valid” decisions about what causes are “ruled in” and which ones are “ruled out.” *Ervin v. Johnson & Johnson, Inc.*, 492 F.3d 901, 904 (7th Cir. 2007). In assessing Dr. Harris’s opinion, therefore, the court must determine whether he has “adequately accounted for obvious alternative explanations.”

Schultz v. Akzo Nobel Paints, LLC, 721 F.3d 426, 434 (7th Cir. 2013) (quoting FED. R. EVID. 702 cmt. (2000)). To be admissible, an expert's testimony must have "been subjected to the scientific method; it must rule out 'subjective belief or unsupported speculation.'" *O'Conner v. Commonwealth Edison Co.*, 13 F.3d 1090, 1106 (7th Cir. 1994) (quoting *Porter v. Whitehall Labs., Inc.*, 9 F.3d 607, 613 (7th Cir. 1993)).

A. Harris's conclusion as to the location of Ms. Wu's fall

Dr. Harris's conclusion has two parts: first, that Ms. Wu died from a fall, and second, that the fall was caused by the height or condition of the aircraft door. As to the second conclusion, Dr. Harris admits that he is not an expert in accident reconstruction or aircraft design. (Harris Dep. 300:20–301:18; 324:6–8.) His conclusion that the aircraft door caused the fall, therefore, is based solely on Harris's observation that Ms. Wu was short in stature and overweight which, in his medical opinion, would predispose her to fall at that moment. But Harris cannot rule out the possibility that Ms. Wu fell after successfully exiting the aircraft: he admits that her symptoms were entirely consistent with a fall having occurred after she had reached the jet bridge. (See Harris Dep. 256:6–13.) Harris's apparent belief that Ms. Wu was more likely to have fallen at the aircraft door is a conclusion that appears to be based on pure speculation. Accordingly, his opinion as to where exactly Ms. Wu fell is excluded.

B. Dr. Harris's conclusion as to the cause of Ms. Wu's death

As to the particular cause of Ms. Wu's death, Harris concludes based on his experience as an emergency room physician that she died due to head trauma from a fall, rather than by a pulmonary embolism or myocardial infarction. The court is unsure that Dr. Harris's conclusion is adequately supported; particularly, the court has doubts that Dr. Harris has sufficiently explained why he excluded heart attack as a possible cause of Ms. Wu's death, even though it is symptomatically similar to a death from trauma: like trauma, a heart attack could cause sudden death (Harris Dep. 119:23–120:2), accompanied by rapid breathing and sweating. (Harris Dep. 120:3–20; 121:17–18.) The court is also unsure, from the evidence available to Dr. Harris, that

he could rule out a heart attack (or other internal cause, such as lightheadedness or simple absentmindedness) caused her to fall, resulting in the symptoms of a fall but which nevertheless had an internal cause. For purposes of resolving this motion, however, the court will accept Dr. Harris's conclusion that Ms. Wu died from a fall. Even accepting that portion of Dr. Harris's testimony, Plaintiff cannot establish that Ms. Wu's death was caused by an external cause that creates liability for the Defendants.

II. Summary Judgment

A. Legal Standard

Summary judgment is appropriate "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). "The moving party has the burden of either: (1) showing that there is an absence of evidence supporting an essential element of the non-moving party's claim; or (2) presenting affirmative evidence that negates an essential element of the non-moving party's claim." *Hummel v. St. Joseph Cty. Bd. of Comm'rs*, 817 F.3d 1010, 1016 (7th Cir. 2016). In assessing the record, the court draws all reasonable inferences in favor of the nonmoving party. *McGreal v. Village of Orland Park*, 850 F.3d 308, 312 (7th Cir. 2017). To survive summary judgment, however, the nonmoving party must produce evidence "such that a reasonable jury could return a verdict" for them. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). For the reasons below, Plaintiff has not identified evidence sufficient to create a genuine dispute of fact about whether Ms. Wu's fall was caused by the aircraft door, such that Boeing could be responsible on a product liability theory, or by an "accident" that would expose Air China to liability under the Montreal Convention.

B. Boeing

To prevail on a product liability claim, a plaintiff must "prove that the injury complained of resulted from a condition of the product, that the condition was unreasonably dangerous, and that it existed at the time the product left the manufacturer's control." *Mikolajczyk v. Ford Motor*

Co., 231 Ill. 2d 516, 525, 901 N.E.2d 329, 335 (2008) (citing *Sollami v. Eaton*, 201 Ill. 2d 1, 7, 772 N.E.2d 215, 219 (2002)).⁶ “A product may be found to be unreasonably dangerous based on proof of any one of three conditions: a physical defect in the product itself, a defect in the product's design, or a failure of the manufacturer to warn of the danger or to instruct on the proper use of the product.” *Id.* A plaintiff must prove that the defective product was the proximate cause of the injury. See *Dunning v. Dynegy Midwest Generation, Inc.*, 2015 IL App (5th) 140168, ¶¶ 34–35, 33 N.E.3d 179, 196.

As to Boeing, Plaintiff claims that the plane was defective because the door sill had a glossy, slippery surface and was not equipped with no-slip treads. (Am. Compl. Count II, ¶ 8.) That the door was unreasonably dangerous is a claim that can be established without expert testimony, Plaintiff asserts, because a layperson could assess how the product functions and whether it posed a risk. (Pl.'s Mem. of Law in Opp. to Boeing's Mot. for Summ. J. [93], at 5–7.)

The court need not consider the question of whether the door was defective, or whether lay testimony is sufficient to establish that fact, however. Dr. Harris's testimony is not admissible to prove that Ms. Wu fell from the doorway. Without Dr. Harris's testimony, Plaintiff has no evidence to prove that Ms. Wu was injured by a defect in the door, if such a defect existed. Assuming that Plaintiff can establish that Ms. Wu fell, he nevertheless cannot prove that she fell at that particular location: As Dr. Harris acknowledged, her symptoms were

⁶ Boeing asserts that Illinois law governs the product liability claim, and Plaintiff has not challenged this. Boeing does not explain why it relies on Illinois law (Mem. in Supp. of Boeing's Mot. for Summ. J. [71], at 5 n.1), and the court does not necessarily endorse that choice: the airplane was manufactured in Washington, Ms. Wu is a Chinese national, and her death occurred in Beijing. The matter's sole connection to Illinois appears to be that Boeing is headquartered here. Nevertheless, Boeing contends that if Illinois choice-of-law principles were to dictate that the law of Washington (the most likely candidate, in the court's opinion) controls, there would be no material difference to the case: Washington products liability law is the same as that of Illinois. *Crichton v. Golden Rule Ins. Co.*, 576 F.3d 392, 397 n.1 (7th Cir. 2009) (where no conflict, district court may apply law of forum state). Plaintiff, for his part, cites Illinois cases in his brief, and does not identify any conflict. (Pl.'s Mem. of Law in Opp. to Boeing's Mot. for Summ. J. [93], at 6.) The court accordingly accepts the parties' reliance on Illinois law.

consistent with a fall occurring at any point along the jet bridge, not just from the aircraft door. (See Harris Dep. 256:6–13.)

In a case considering a similar issue, *Keating v. 68th & Paxton, LLC*, a trial court granted summary judgment to a landlord on the plaintiff's premises liability claim after the plaintiff fell when from the porch he was repairing; the plaintiff had claimed that the porch railing gave out. 401 Ill. App. 3d 456, 458, 936 N.E.2d 1050, 1054 (1st Dist. 2010). In affirming that ruling, the Illinois Appellate court observed that there was no direct evidence of the cause of plaintiff's fall, and it was equally likely that plaintiff had detached the railing during the repair (as he had testified, at his deposition, was his general practice) as it was that the railing had given out. *Id.* at 473–74, 936 N.E.2d at 1066–67. A fall during the repair process was merely possible, but not probable, based on the record. *Id.*; see also *Hudson v. Twenty-Three East Adams Street Corp.*, 787 F. Supp. 141, 145–46 (N.D. Ill. 1991) (granting summary judgment for property owner where decedent died of unobserved trip down a flight of stairs; no evidence established that decedent was injured by the condition of the stairs). Because Plaintiff cannot foreclose other causes or locations of the incident leading to Ms. Wu's death, Plaintiff's assertions that Ms. Wu fell from the particular location of the aircraft door is, similarly, merely a possible result. A trier of fact could only speculate as to whether the fall was caused by the door, and summary judgment is accordingly granted to Boeing.

C. Air China

Air China's relationship with its passengers is governed by the Montreal Convention, an international treaty that establishes a single standard of carrier liability for accidents: "The carrier is liable for damage sustained in case of death or bodily injury of a passenger upon condition only that the accident which caused the death or injury took place on board the aircraft or in the course of any of the operations of embarking or disembarking." Convention for the Unification of Certain Rules for International Carriage by Air, art. 17, May 28, 1999, S. Treaty Doc. No. 106-45, 1999 WL 33292734. Air China does not contest that an airline's responsibility under the

Convention extends to the jet bridge, and the court agrees that accidents on the jet bridge would be part of the “operation[] of embarking or disembarking.” *Cf. Gezzi v. British Airways, PLC*, 991 F.2d 603, 605 (9th Cir. 1993) (holding that stairs between tarmac and plane were part of embarking process, affirming district court judgment in favor of injured plaintiff); *see also Hidalgo-Lobato v. Am. Airlines, Inc.*, No. 2:10-CV-3212 WHW, 2014 WL 2510545, at *3 (D.N.J. June 4, 2014) (denying summary judgment to airline under Montreal Convention where passenger injured on jet bridge). Accordingly, the question before the court is whether Plaintiff has identified a genuine dispute of material fact as to whether Ms. Wu suffered an accident, within the meaning of the Convention, either in the plane or on the jet bridge.

The critical term is the meaning of “accident” in the Convention. Though the Convention imposes liability on the airline, that liability extends only to “accidents” within the meaning of the treaty. The Supreme Court has defined the term “accident” to concern only an “unexpected or unusual event or happening that is external to the passenger;” an “accident” does not include “the passenger’s own internal reaction to the usual, normal, and expected operation of the aircraft” *Air France v. Saks*, 470 U.S. 392, 405–06 (1985).⁷ Therefore, in order for a carrier to be liable under the Montreal Convention, the victim’s injury must be proximately caused by an unexpected event external to the passenger. *See Olympic Airways v. Husain*, 540 U.S. 644, 653 (2004). That external event may be a “link in the chain of causes.” *Id.* In *Olympic Airways*, a passenger died of an asthma attack after a flight attendant refused to move him from the smoking section of an international flight. *Id.* at 647–48. His spouse sued the

⁷ *Saks* concerns the predecessor to the Montreal Convention, the Warsaw Convention. 470 U.S. at 394. But courts have “routinely relied upon Warsaw Convention precedent where the equivalent provision in the Montreal Convention is substantively the same.” *Narayana v. British Airways*, 747 F.3d 1125, 1127 n.2 (9th Cir. 2014). Particularly here, the drafters of Article 17 of the Montreal Convention “expected that this provision will be construed consistently with the precedent developed under the Warsaw Convention and its related instruments.” Montreal Convention, art. 17 cmt. 1.

airline, and the district court entered judgment for the spouse,⁸ holding that the flight attendant's conduct was external to the passenger and was unexpected and unusual in light of industry standards. *Id.* at 648–49. The Ninth Circuit affirmed. *Id.* The Supreme Court, affirming the judgment, recognized that the smoke in the cabin (an “expected” event, given the airlines’ policies), and the passenger’s asthma attack (an internal factor) were both proximate causes of the passenger’s death, but noted that the flight attendant’s refusal to move him was also a proximate cause. *Id.* at 654.

Plaintiff argues that accidents that occur within the normal operation of the aircraft may support liability under the Montreal Convention. In support, Plaintiff cites the Northern District of California opinion *Kwon v. Singapore Airlines*, 356 F. Supp. 2d 1041, 1045 (N.D. Cal. 2003). In this court’s view, *Kwon* does not support Plaintiff’s proposed interpretation, which in any event would directly contradict the meaning of accident approved in *Saks* and *Olympic Airways*. In *Kwon*, a plaintiff was injured when another passenger stepped on his foot while loading her luggage into the overhead compartment. *Id.* at 1043. Interpreting the word “accident” in the Convention, the court examined the *Saks* opinion, and noted that other courts had imposed requirements that had no basis in that opinion or in the Montreal Convention: for instance, other courts had suggested that to support liability, the accident must have resulted from a “risk characteristic of air travel, or must bear some relation to the operation of an aircraft,” *id.* at 1045, or had held that common or not unusual accidents were not covered, *id.* at 1045–46. The *Kwon* court declined to impose such additional requirements, instead explicitly adhering to the holding in *Saks* that an accident, within the meaning of the convention, must be an unexpected or unusual event external to the passenger. *Id.* at 1044–45. The *Kwon* court thus found that the plaintiff had suffered an accident within the meaning of the Convention, *id.*,

⁸ The opinion is not explicit about the reason for the district court’s entry of judgment against the airline. See *id.* at 648 (“Petitioner removed the case to federal court, and the District Court found petitioner liable for Dr. Hanson’s death.”).

though the plaintiff's damages were ultimately limited by another provision of the Convention, *id.* at 1046–47.

In this case, too, Plaintiff must produce evidence that Ms. Wu died from an unexpected cause external to her. Though that cause need merely be a link in the causal chain, it must be a proximate cause of her death. Plaintiff's theory of an external cause hinges on Dr. Harris's opinion that Ms. Wu fell from the aircraft door to the jet bridge, and that the height differential between those two surfaces caused Ms. Wu to fall. With that opinion excluded, Plaintiff cannot identify another event outside the course of normal aircraft or jet bridge operations that caused Ms. Wu's fall.

As Dr. Harris acknowledges, Ms. Wu's symptoms were consistent with having fallen after successfully exiting the aircraft. If that is what happened, Plaintiff has no supportable factual theory as to why such a fall was the result of anything unusual or unexpected happening on the jet bridge. It is, of course, possible that the carpeting was awry or the floor of the jet bridge irregular, or that the jet bridge moved unexpectedly. But the fact that Plaintiff might suggest circumstances that would have caused Ms. Wu to fall does not mean he has evidence sufficient to support his claim. It is possible that Ms. Wu's fall was caused by an unusual operation of the aircraft, but mere possibility does not suffice at summary judgment.

By analogy, a plaintiff in a negligence case who fell cannot survive summary judgment by demonstrating that her injury was possibly caused by the defendant's acts; there must be evidence such that causation is "more probable as opposed to merely possible." *Majetich v. P.T. Ferro Const. Co.*, 389 Ill. App. 3d 220, 225, 906 N.E.2d 713, 718 (3d Dist. 2009). Put another way, plaintiff cannot survive summary judgment without narrowing the cause of her injury down to those mechanisms controlled by the defendant. See *Maroules v. Jumbo, Inc.*, 452 F.3d 639, 644 (7th Cir. 2006). *Keating*, the railing repair case, again provides relevant guidance; the court recognized there that evidence that merely establishes possible causes of an injury is insufficient to survive summary judgment. See 401 Ill. App. 3d at 473–74, 936

N.E.2d at 1066–67. Because Plaintiff cannot foreclose other causes of the incident leading to Ms. Wu’s death, Plaintiff’s assertions that Ms. Wu fell due to an unusual or unexpected operation of the jet bridge is, similarly, merely a possible result.

As Plaintiff points out, *Saks* cautioned that “where there is contradictory evidence, it is for the trier of fact to decide whether an ‘accident’ as here defined caused the passenger’s injury.” *Saks*, 470 U.S. at 405. But the Court in *Saks* was referring to situations where there was evidence that an event occurred outside of normal operations: in the two cases cited, the plaintiff had produced evidence from personal testimony or circumstantial evidence that an unusual event occurred. *See id.* (citing *DeMarines v. KLM Royal Dutch Airlines*, 580 F.2d 1193, 1197 (3d Cir. 1978) (plaintiff’s testimony of pressure change, along with other passengers experiencing ear pain, sufficient to demonstrate pressure change occurred); *Weintraub v. Capital Int’l Airways, Inc.*, 16 CCH Av.Cas. 18,058 (N.Y. Sup. Ct., 1st Dept., 1981) (plaintiff’s testimony that “sudden dive” led to pressure change causing hearing loss indicates injury was caused by an “accident”)). Plaintiff here has produced no admissible evidence that Ms. Wu fell due to the unusual or unexpected operation of the aircraft or jet bridge. Many of the possible causes of Ms. Wu’s death, such as lightheadedness or absentmindedness (even excluding the possibility of pulmonary embolism and myocardial infarction), are internal causes not caused by the airline.

Plaintiff correctly notes that he need not extinguish every alternative theory of causation in order to prevail at trial, citing *Musgrave v. Union Carbide Corp.*, 493 F.2d 224, 228 (7th Cir. 1974). In *Musgrave*, a tractor driver was injured when the trailer he was pulling sheared off at the hitch connecting it to the tractor, and the trailer pulled free and struck the tractor. *Id.* at 226. The plaintiff sued Union Carbide, the company that provided the trailer to him, and Process Engineering, the manufacturer of the trailer. *Id.* at 227. Expert testimony established that the hitch was defective, and the plaintiff presented a separate theory of liability as to either defendant: either the manufacturer put the defective hitch on the trailer, or Union Carbide

replaced the hitch with a defective one. *Id.* Upholding a verdict against Union Carbide, the Seventh Circuit pointed to evidence that the hitch attached to the trailer at the time of the accident did not have distinctive characteristics of the hitches that the manufacturer installed, tending to show that Union Carbide had replaced the manufacturer's hitch with a different one. *Id.* at 228–29.

In *Musgrave*, unlike this case, the plaintiff's theories were each independently sufficient for liability. Either the manufacturer or Union Carbide had installed the defective hitch; the plaintiff had effectively identified "the only two logical sources who could possibl[y] explain" the defective state of the trailer. See *id.* at 227. Here, Yang has not produced enough evidence to substantiate liability as to Air China. Dr. Harris's testimony does not reliably narrow down the cause of Ms. Wu's death to an "accident" that would allow Yang to succeed at trial. Without such an opinion, any finding of causation would be purely speculative. *Cf. Keating*, 401 Ill. App. 3d at 473–74, 936 N.E.2d at 1066–67.

D. Other evidence

Finally, the court addresses the admissibility of the Health Bureau of Beijing death certificate produced by Jiang Xuerong, a matter of hot dispute between the parties. Plaintiff argues that the death certificate is inadmissible because proper foundation cannot be laid. (Pl.'s Resp. to Air China 4.) Air China responds that not only is the death certificate admissible, but that Plaintiff has admitted its accuracy, as he produced it to a state court in Massachusetts to establish that his mother had passed away for purposes of being appointed a representative of her estate. (Air China Supp. Mem. of Law [133].) In the court's view, however, Yang's use of the death certificate to prove the only relevant fact at that proceeding—that Ms. Wu was dead—does not constitute acceptance of the causes of death proposed by Xuerong. *McCaskill v. SCI*

Mgmt. Corp., 298 F.3d 677, 682 (7th Cir. 2002) (observing that statements must be “unambiguous, intentional” to qualify as judicial admissions).⁹

The court need not decide the matter, however. Because Plaintiff has not presented evidence sufficient to support a finding that Ms. Wu’s death was caused by the aircraft door or an unusual or unexpected event, the court need not consider information in the death certificate or the testimony of Defendants’ expert. For the same reason, the court will not address the various other objections raised by Air China: (1) that the photographs lack sufficient foundation to be admitted, and (2) that Plaintiff produced no evidence that the step down out of the plane was outside of usual operational standards and therefore “unexpected.”

Plaintiff’s motion for summary judgment against Air China is denied. (Pl.’s Mot. for Summ. J. Against Air China [82].) Plaintiff has not eliminated disputes of fact; indeed, he has not produced evidence sufficient to support a verdict that Ms. Wu died as the result of an “accident” within the meaning of the Montreal Convention. Plaintiff’s motion to strike the Defendants’ expert opinions from Dr. Ardehali [87] is moot.

CONCLUSION

Boeing and Air China’s joint motion to strike the expert report of Dr. Harris [67] is granted in part and stricken in part as moot. Boeing [70] and Air China’s [77] motions for summary judgment are granted. Plaintiff’s motion for summary judgment [82] is denied. Plaintiff’s motion

⁹ Air China also improperly submitted the evidence supporting this argument, initially, as an exhibit to its memorandum of law, rather than in a supplemental Local Rule 56.1 statement. See *Thornton v. M7 Aerospace LP*, 796 F.3d 757, 769 (7th Cir. 2015) (finding failure to file 56.1 statement, and only attaching expert report, is a proper basis for exclusion). This is a particularly sore spot for Plaintiff’s counsel, who point out that in an earlier case litigated by these same attorneys, Air China’s counsel convinced a court to exclude a document (to Plaintiff’s counsel’s detriment) for precisely the procedural error that Air China’s counsel made here. See *id.* Plaintiff argues that *Thornton* should apply and exclude Air China’s judicial admission argument. The court need not address this dispute.

to strike the opinion of Dr. Ardehali [87] is moot, as is Boeing's motion to strike Plaintiff's Rule 56.1 statements [116].

ENTER:

A handwritten signature in black ink, appearing to read "Rebecca R. Pallmeyer", with a long horizontal flourish extending to the right.

Dated: September 27, 2017

REBECCA R. PALLMEYER
United States District Judge