STATE OF SOUTH CAROLINA

IN THE SUPREME COURT

Certiorari to the Court of Appeals
Appeal from Beaufort County
Carmen T. Mullen, Circuit Court Judge

Opinion No. 2021-UP-029 (S.C. Ct. App. filed Jan. 27, 2021)

THE STATE,

RESPONDENT,

V.

TYRONE ANTHONY WALLACE, JR.

PETITIONER

APPELLATE CASE NO. 2018-001242

PETITION FOR WRIT OF CERTIORARI TO THE COURT OF APPEALS

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CERTIFICATE OF COUNSEL

Counsel for Petitioner certifies that the petition for rehearing was made and finally ruled on by the Court of Appeals on March 2, 2021.

QUESTION PRESENTED

Did the Court of Appeals err in holding a member of the solicitor's office was qualified as an expert in historical cell site analysis where the solicitor's employee lacked the knowledge, skill, experience, training, or education necessary in order to render an opinion in the area?

STATEMENT OF THE CASE

When Varsheen "Twiz" Smith was released from federal prison in 2015, he returned to Beaufort to take over the city. R. 225, l. 7 – R. 226, l. 6. Smith moved in with Vermone "Mony" Steve, who had a house on Greene Street from which Smith sold drugs. R. 136, ll. 1-14; R. 143, l. 25 – R. 144, l. 8; R. 226, ll. 1-6.

On October 25, 2015, Steve, Andre "Dre" Frazier, and a third person went to Buffalo Wild Wings to watch football. R. 135, ll. 13-15; R. 144, ll. 9-18; R. 145, ll. 2-6. Finding "no girls in there," Steve left shortly after arriving. R. 145, ll. 5-24. When the football game was over, Frazier called Steve to make sure he was home and then Frazier went to Steve's house. R. 146, l. 24 – R. 147, l. 24. Frazier was understandably apprehensive because a few months prior to October 25, 2015, Smith pulled his gun and threatened to kill Andre "Dre" Frazier. R. 173, ll. 21-24; R. 174, ll. 1-9.

Frazier parked at an abandoned building next door to Steve's home, and as he walked to the home, he saw Smith and Petitioner standing in the yard. R. 148, ll. 2-4; R. 148, ll. 10-11; R. 151, ll. 2-8. When Smith told Frazier that Steve was in the house, Frazier walked closer toward the house. R. 153, ll. 6-25. According to Frazier, Smith and Petitioner followed him. R. 154, ll. 13-15; R. 155, ll. 19-23. At the threshold, Smith struck Frazier in the back. R. 156, ll. 5-8. Thereafter, Frazier and Smith "tussled at the door." R. 156, ll. 9-10; R. 156, ll. 15-16.

Frazier claimed that Smith was trying to push him into the house and that Petitioner helped Smith by jumping on Smith's back. R. 156, l. 25 – R. 157, l. 15. Smith put a gun to Frazier's stomach during the scuffle. R. 157, ll. 4-6. Frazier then entered the house with Smith closing the door behind him. R. 158, ll. 9-13. Smith directed Petitioner to "run" Frazier's pockets, which Petitioner did. R. 158, ll. 14-23. When Frazier refused to lie on the floor as

Smith commanded, Smith shot Frazier in the back of the head. R. 159, ll. 11-20. Per Smith's instructions, Petitioner removed Frazier's belt and used it to tie up Frazier. R. 160, ll. 17-25. Thereafter, Petitioner – again, at Smith's direction – retrieved a rag, which was placed in Frazier's mouth. R. 160, ll. 11-16; R. 161, ll. 3-8. With Smith pointing a gun at Frazier, Petitioner walked Frazier to a back room in the house. R. 162, ll. 2-12. When Petitioner was alone with Frazier, he assured Frazier that he had no intention of killing him. R. 163, ll. 2-4.

When Smith re-entered the back room where Petitioner and Frazier were, Smith ordered Petitioner to go outside. R. 164, ll. 1-2. Smith commanded Frazier to lie on the floor. R. 164, ll. 4-5. As Frazier got to his knees, Petitioner knocked on the door, asking to speak to Smith. R. 164, ll. 14-18. Although Smith left the room to speak to Petitioner, which allowed Frazier to retrieve his phone from his back pocket, Frazier decided not to call anyone. R. 164, l. 21 – R. 165, l. 24. Smith and Petitioner then returned to the room, and Petitioner, at Smith's direction, untied Frazier and let him leave. R. 166, l. 11 – R. 167, l. 1. When Frazier walked outside, he saw police in the area, but he made no attempt to contact the officers. R. 167, ll. 2-20.[1] Even after Frazier was free and clear of any perceived danger, Frazier made no effort to call police. R. 169, l. 25 – R. 170, l. 2. Frazier was clear that Smith was the one in control of the situation, and Petitioner was doing what Smith demanded. R. 160, ll. 1-8. It was undisputed that Petitioner was unarmed during the encounter with Frazier. R. 175, ll. 3-8.

Frazier claimed he spent the rest of the night looking for Steve, but he was unable to find him. R. 168, ll. 3-8.

[1] Around 8 p.m., the police responded to the area for a disturbance call. R. 426, l. 6 – R. 427, l. 9; R. 294, ll. 2-7 (George Erdel testifying the police were on the scene at "7:31, or around there").

Ralph Ramsey and a friend were playing tennis in downtown Beaufort on October 25, 2015. R. 422, ll. 9-14. Ramsey heard gunshots, and immediately thereafter, he saw a car slowly approach the tennis courts. R. 423, ll. 5-8. Later, Ramsey called 911. R. 422, ll. 15-21.[2] On his way out of the area, Ramsey saw a police officer, and stopped to speak to the officer about what he had heard and seen. R. 423, ll. 15-22; R. 428, ll. 8-9. According to an officer who responded to the scene, Ramsey and his friend heard "three distinct gunshots." R. 428, ll. 13-14. The men also reported seeing a "silver-in-color Yukon, GMC Yukon" that left the area "in a pretty quick fashion." R. 428, ll. 14-18. Further, the men said the Yukon returned "[a] few moments later." R. 428, ll. 18-19.

Late at night on October 25, 2015, Tayquan Lampkin asked Dominique "Niko" Cook for help and to use Cook's car. R. 207, ll. 1-25; R. 208, ll. 12-16.[3] Cook and Lampkin drove to Lampkin's house, where Petitioner met the two. R. 210, ll. 1-12. Prior to October 25, 2015, Petitioner and Cook had never met. R. 206, ll. 23-25.

Cook claimed he gave his car keys to Petitioner, despite the fact that the two had just met, and that Smith got into the car as well. R. 213, ll. 9-16. Also, in that statement, Cook claimed Petitioner drove them to the island where he stopped the car in an open field. R. 214, ll. 5-11. According to Cook, Petitioner and Smith got a man out of the trunk[4] and that Petitioner "brought out a gas can and gassed it up." R. 214, l. 15 – R. 215, l. 2. Afterward, Cook's car was stuck in

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[2] Based upon the other evidence presented, the gunshots were fired shortly before 8:30 p.m. R. 294 (officer testifying the shots fired call was at 8:24 p.m.); R. 427, ll. 1-4 (officer testifying that the "shots fired" call was "around 8:30").

[3] Contrary to Cook's claims, his GPS monitoring ankle bracelet placed him "at or near the residence" on Greene Street from 6:38 p.m. to 9:27 p.m. R. 432, ll. 11-17.

[4] The police found Vermone Steve's DNA in the trunk. R. 246, ll. 7-15.

the mud, and Petitioner called a tow truck company for assistance. R. 215, ll. 3-7. Cook admitted that Petitioner told him that he shot Steve because Smith forced him to do so. R. 217, ll. 8-11.

Cook also claimed that Petitioner arrived at Pea Patch Road while he, Lampkin, and Smith were there. R. 218, l. 21 – R. 219, l. 16. According to Cook, Petitioner arrived alone in a truck. R. 218, l. 21 – R. 219, l. 16. Cook speculated that Lampkin called Petitioner to the area. R. 219, ll. 11-16.[5]

Janice Steve, Vermone Steve's mother, last saw him on October 18, 2015. On October 26, 2015, Frazier called Janice. R. 135, ll. 19-24; R. 137, ll. 21-23; R. 169, ll. 4-7. Based on this phone call, Janice reported Steve missing. R. 138, ll. 3-6; R. 283, ll. 4-10; R. 283, ll. 22-23. On October 27, 2015, the police entered the home shared by Smith and Steve through an unlocked window. R. 314, ll. 10-22. Inside, the police found no signs of a struggle. R. 315, ll. 5-7. Further, the police found no blood in the house, even when using "a reagent test." R. 337, ll. 8-16. Two days later, the police interrogated Frazier. R. 284, ll. 2-8. Frazier was "almost incoherent, extremely jumpy," and could not "hold a train of thought." R. 321, ll. 16-19.

Then, on November 16, 2015, the police interrogated twenty-one-year-old Petitioner for three hours because Frazier implicated him in his kidnapping. R. 286, ll. 7-23; R. 289, ll. 20-22; R. 342, ll. 10-12. The police arrested Petitioner at the conclusion of this interrogation.

Two days later, on November 18, 2015, a phone call led the Beaufort County Sheriff's Office to a body on Pea Patch Road. R. 182, l. 4 – R. 183, l. 5. Later, the police identified the remains as belonging to Steve. R. 188, ll. 21-24; R. 247, l. 16 – R. 248, l. 21; R. 409, ll. 3-13. A

[5] Dominique "Niko" Cook pled guilty to accessory after the fact for murder of Steve. R. 204, ll. 5-7; R. 204, ll. 17-25; R. 205 , ll. 1-2.

forensic chemist found gasoline present in soil samples collected from the area. R. 192, ll. 17-18.; R. 193, ll. 18-22; R. 194, ll. 6-11; R. 194, ll. 18-22; R. 202, l. 19 – R. 203, l. 4.

According to the pathologist, Steve had "two irregularities" with his bones. R. 411, ll. 2-5. On the seventh rib on the left, there was "a somewhat irregular, kind of circular defect that had some fractures extending from it." R. 411, ll. 5-9. "[A]t the corner of the lower left eye, there was a black kind of charged or singe mark on the skull." R. 411, ll. 11-13. Although the pathologist could not determine what caused the rib injury, he agreed it was "consistent with a gunshot wound." R. 413, ll. 15-21. The injury to the eye area was consistent with the remains having been set on fire. R. 414, ll. 1-12. Additionally, the pathologist noted "several defects varying in size" on the back of the t-shirt found with the remains. R. 416, ll. 12-14. While he could not say how the defects got there, he agreed "[a] gunshot could certainly make the hole through the shirt such as those." R. 416, ll. 19-23. Due to the condition of the body, the pathologist could not determine the cause and manner of death. R. 417, ll. 1-6.

The police interrogated Petitioner again on November 25, 2015, and for a third time on December 3, 2015. R. 302, ll. 23-25; R. 303, ll. 6-11. Months later, on March 17, 2016, a Beaufort County grand jury indicted Petitioner for murder (2016-GS-70-0044) and kidnapping (2015-GS-07-1907). R. 591-592; R. 594-595. While Petitioner was waiting for his case to be called to trial, Jordan Burgess was hired to kill Petitioner. R. 347, ll. 15-22. In fact, Petitioner was beaten up at the detention center and placed into segregation to save him from other inmates. R. 348, l. 15 – R. 349, l. 12. The state, represented by Mary C. Jones and Kimberly L. Smith, called the case to trial before the Honorable Carmen Mullen on June 18-22, 2018. R. 1-2. Trasi Campbell and Eric Staggs represented Petitioner. R. 2. Ultimately, the jury found Petitioner guilty of murder off Steve and guilty of kidnapping of Frazier. R. 523, ll. 3-14. Judge Mullen

sentenced Petitioner to twenty-five years for kidnapping and life imprisonment for murder. R. 524, ll. 1-8; R. 593; R. 596.

On June 27, 2018, Petitioner served his notice of appeal. Thereafter, Petitioner challenged the trial court's qualification of a member of the solicitor's office as an expert in historical cell site analysis based upon the employee's lack of knowledge, skill, experience, training, and education. Specifically, Petitioner noted the witness had never been qualified as such an expert previously and he demonstrated no knowledge, skill, experience, training, or education in this area. In fact, his most significant training provided him with a certificate stating the solicitor's employee's completion of the course did *not* render the employee qualified as an expert. Nevertheless, the Court of Appeals held the solicitor's employee was properly qualified as an expert because he was "the Director of the Fourteenth Circuit Solicitor's Office Intelligence Unit; ha[d] amassed seventy-two hours of training related to historical cell-site analysis; continue[d] his education in historical cell-site analysis in the form of yearly online trainings; and ha[d] reviewed over one hundred sets of cell phone records." State v. Wallace, 2021-UP-029 (S.C. Ct. App. filed Jan. 27, 2021). The Court of Appeals subsequently denied Petitioner's petition for rehearing. Petitioner now files this petition for writ of certiorari.

ARGUMENT

The Court of Appeals erred in holding a member of the solicitor's office was qualified as an expert in historical cell site analysis where the solicitor's employee lacked the knowledge, skill, experience, training, or education necessary in order to render an opinion in the area.

Reasons to grant certiorari

In trials across this state, litigants present trial judges with the daunting task of determining the admissibility of expert testimony related to historical cell site location information. Little guidance from our appellate courts exists in South Carolina to assist the trial judges who face this Herculean task almost daily. Thus, while the issue of qualifications of an expert witness in general is not a novel issue for this Court, the specific issue of qualifications of an expert in the analysis of historical cell site location information is. This case presents an opportunity for this Court to address this novel issue facing the trial courts day after day. See Rule 242(b)(1), SCACR.

Relevant facts

Prior to trial, Petitioner moved to suppress the state's "use of cell phone tower testimony." R. 3, ll. 5-9. In the motion, Petitioner argued the evidence was "scientific evidence and opinions or interpretations for a jury can only be elicited from an expert who is subjected to qualification by th[e] Court." R. 525-529. Additionally, Petitioner argued that if the trial court determined the evidence was not scientific, then an employee from the solicitor's office should not be allowed to "provide any analysis or interpretation or opinions about the cell phone tower data," due to the employee's position as an advocate. R. 525-529. According to Petitioner, "[c]ell phone providers create and maintain records of cell phone interaction with cell phone tower sectors for purposes of optimizing service and accurately billing customers" R. 525-529.

Then, "[b]y examining those records, a person can determine the general location of a cell phone at the time it connects to a tower." R. 525-529.

On June 11, 2018, Judge Mullen convened a hearing on the motion. R.1. The state requested that Dylan Hightower, "the director of the Intelligence Unit" at the Fourteenth Circuit Solicitor's Office, be qualified as an expert in historical cell phone data. R. 5, ll. 9-14. Hightower had never been qualified as such an expert. R. 6, ll. 22-25; R. 9, ll. 18-20. Hightower explained that in his role at the Solicitor's Office, he performed "historical cell phone analysis for the actual records that were provided from the providers." R. 10, ll. 9-11. Upon receipt, from the providers, of "call detail records," "a realtime tool," and "any other incoming and outgoing calls," Hightower would analyze the information and "do a geo spacial mapping." R. 10, ll. 12-19.

Hightower graduated from the University of South Carolina in 2010 with a degree in sociology. R. 11, ll. 2-4. After graduation, he "served an internship with the South Carolina Law Enforcement Division, and ultimately obtained a position at the Fourteenth Circuit Solicitor's Office." R. 11, ll. 4-7. As a favor to the Solicitor, SLED agreed to allow Hightower to "do a four-week, on-the-job training in the Fusion Center" to develop "a knowledge for basic criminal intelligence analysis." R. 11, ll. 7-13. This four-week program "encompasse[d] everything," including "a basic knowledge of cell phone forensics, as well as cellular analyses." R. 11, ll. 14-19. In December 2011, he took a "one-week course" at SLED called "PenLink" for "call analysis training." R. 11, l. 20 – R. 12, l. 1. That course taught "how to read the records," "map the records," and "how to use their software," which does the analyses. R. 12, ll. 1-5.

Three years later, he took a two-day course called "Fundamentals of Call Detail Records Analysis" in North Carolina. R. 12, ll. 7-9. This class primarily dealt with "manual searching,

[and] manual analyses." R. 12, ll. 9-12. Then, he attended a "one-day course in Myrtle Beach" on "mobile forensics." R. 14, ll. 11-13. For this class, he obtained "a certification" and his work was "peer reviewed by someone" with more knowledge in the system or someone who had been using the system longer. R. 14, ll. 14-18. Finally, in May 2018, one month before the hearing to determine his qualifications and the admissibility of his testimony, he attended "the FBI CAST class." R. 14, ll. 18-21. This class concerned "historical cell site analysis." R. 14, ll. 19-21. In total, Hightower had 72 hours of training in "actual" courses. R. 24, ll. 23-24; R. 33, ll. 1-5.

When asked if he were certified or if anyone tested him, he responded that the instructors at the classes he took did so. R. 12, l. 25 – R. 13, l. 9. He also claimed that "after all these classes" he was certified in "an understanding of how to read records, as well as an understanding of how cell site towers work, as well as sectors[, and a]ll entities of call detail records." R. 14, l. 22 – R. 15, l. 6. Later, he revealed he had received a certification only from "FBI CAST, Cell Site Analysis Course." R. 25, ll. 7-12; R. 33, ll. 19-25. He was certified in "[h]aving the ability to analyze and interpret data … from the different cellular providers." R. 35, ll. 1-5.

Hightower had never conducted any experiments to test the accuracy of the information he received from his instructors. R. 28, l. 21 – R. 29, l. 10. He simply accepted the word of his instructors. R. 29, ll. 11-19. "[I]n the beginning," Hightower reached out to his instructors to have "them peer review [his] work to make sure what [he] was doing was correct and was going along with what [he] learned in the class." R. 30, ll. 2-6.

During the hearing, the state explained Hightower would testify that Petitioner's "cell phone [was] pinging off of the towers on the way to and from the murder location." R. 19, l. 25 – R. 20, l. 2. Hightower received Petitioner's phone records. R. 37, l. 24 – R. 38, l. 6. He then

conducted "a cell site analysis" on the records for the time period of October 25, 2015, at 7 p.m. until October 26, 2015, at 5 a.m. R. 40, ll. 7-16. Hightower created a report of his analysis because the records received from the cell phone provider were "very tough to understand and comprehend." R. 40, ll. 17-25. He also created "an overview of all the towers that were utilized by that phone during a specifically time frame, along with the location of the residence at XXX Greene Street, and the location of the burned remains off of Pea Patch Road on Saint Helena." R. 41, l. 18 – R. 42, l. 4. He generated the map using "the CASTViz system," software from one of the conferences he attended. R. 42, ll. 5-7. He claimed he "also did a manual search, a manual analysis through Microsoft MapPoint." R. 42, ll. 7-8.

Hightower informed the judge that the Greene Street house was "approximately 327 yards from the tower." R. 20, ll. 21-25. Hightower further asserted that "the location of the remains was 2.67 miles from that tower on that same sector," and from this, he concluded "it would be in that direction the phone was utilized." R. 21, ll. 5-7. When asked how he could "get that specific," Hightower responded that he "just measure[d] the difference between the location of the remains and the distance … where the tower is located" using latitude and longitude. R. 21, ll. 8-17.

According to Hightower, on October 25, 2015, from 7:11 p.m. until 8:37 p.m., the phone was using a tower that was 327 yards from the area where Steve was killed. R. 42, ll. 11-24. Hightower claimed that between 8:08 p.m. and 8:37 p.m., the phone called Smith five times. R. 46, l. 23 – R. 47, l. 2. At 9:09 p.m., the phone used a tower in Burton, South Carolina. R. 43, ll. 8-17. Then, at 10:55, the phone began using the tower close to the incident location again. R. 43, ll. 18-23. From 12:34 a.m. until 2:29 a.m. on October 26, the phone used a tower "off of Saint Helena." R. 43, l. 25 – R. 44, l. 3. This was near where the remains were found. R. 44, ll.

4-7. Hightower claimed the tower was "2.67 miles" from the remains. R. 44, ll. 8-9. According to Hightower, the location of the remains was "well within the tower's range." R. 45, ll. 23-24. Thereafter, the phone used several more towers until at 4:55, it arrived back in Burton. R. 45, ll. 2-10. Hightower claimed that over the course of the time period he analyzed, Petitioner's phone called Lampkin seventeen times. R. 47, ll. 3-7.

Hightower claimed that "[i]n most cases, if the tower does get overloaded, it would bounce to the next closest tower." R. 46, ll. 1-8; R.47, l. 25 – R. 48, l. 3. However, in his opinion, this phone did not use a next closest tower due to the closest tower being overloaded because it was consistently using the same tower. R. 46, ll. 10-15.

Petitioner argued Hightower should not be qualified as an expert. Specifically, Petitioner noted that the certificate Hightower possessed contained a statement making it "very clear that in no way was the submission to and completion of th[e] course any basis to find that this individual was qualified as an expert." R. 69, ll. 1-12; R. 252, ll. 11-20. While the judge determined "the cell tower historical data and information" required "an expert witness," she found Hightower had "shown enough education, certainly, and experience and training in this triangulation technology." R. 70, ll. 17-20.

When the state presented Hightower as a witness before the jury, Petitioner renewed the objection to Hightower's qualifications as an expert. R. 252, ll. 21-23. Nevertheless, the judge qualified him "as an expert in historical cell phone analysis." R. 252, l. 24 – R. 253, l. 1. Thereafter, Hightower testified similarly to his pre-trial testimony regarding the location of Petitioner's cell phone. R. 253, l. 12 – R. 276, l. 21.

Discussion

The South Carolina Rules of Evidence govern the admissibility of scientific evidence. The applicable rule provides:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

Rule 702, SCRE. "Expert testimony differs from lay testimony in that an expert is permitted to state an opinion based on facts not within his firsthand knowledge or may base his opinion on information made available before the hearing so long as it is the type of information that is reasonably relied upon in the field to make opinions." Watson v. Ford Motor Co., 389 S.C. 434, 445-446, 699 S.E.2d 169, 175 (2010). "'All expert testimony must satisfy the Rule 702 criteria, and that includes the [circuit] court's gatekeeping function in ensuring the proposed expert testimony meets a reliability threshold for the jury's ultimate consideration.'" State v. Cain, 413 S.C. 508, 520-521, 776 S.E.2d 374, 380 (Ct. App. 2015) (quoting State v. White, 382 S.C. 265, 270, 676 S.E.2d 684, 686 (2009)).

Thus, several criteria must be met prior to the admission of expert testimony. First, the trial court must determine that such evidence will assist the jury to understand the evidence or determine a fact in issue. Second, the witness must be qualified as an expert due to experience or training. Third, the trial court must determine whether the proposed expert testimony satisfies a reliability threshold for the jury's ultimate consideration. State v. White, 382 S.C. 265, 269, 676 S.E.2d 684, 686 (2009). The party offering the expert testimony has the burden of showing the witness possesses the necessary learning, skill, or practical experience to enable the witness to give the opinion testimony. State v. Von Dohlen, 322 S.C. 234, 249, 471 S.E.2d 689, 697 (1996).

The first criterion requires the trial judge to determine whether the proffered testimony, which is based upon specialized knowledge, will assist the jury in understanding evidence or

determining a fact. A matter understood without any specialized knowledge does not require the witness to be qualified as an expert. Additionally, if the testimony will not assist the jury's understanding of a relevant matter, then no expert testimony is needed. See Manning, 297 S.C. at 453-454, 377 S.E.2d at 337 (holding that "[t]o qualify as an expert, a person must have acquired by study or practical experience a special knowledge of a subject matter about which the jury's good judgment and average knowledge is inadequate"); Honea, 295 S.C. at 531, 369 S.E.2d at 849. The third criterion requires the trial judge to ensure the proffered testimony "meets a reliability threshold for the jury's ultimate consideration." White, 382 S.C. at 270, 676 S.E.2d at 686. As explained by this Court, "[r]eliability is a central feature of Rule 702 admissibility." Id.

The second criterion, which is at issue in Petitioner's case, requires that the expert's proffered testimony be based upon "knowledge, skill, experience, training, or education." In order for a witness to be competent to testify as an expert, the "witness must have acquired by reason of study or experience or both such knowledge and skill in a profession or science that he is better qualified than the jury to form an opinion on the particular subject of his testimony." O'Tuel v. Villani, 318 S.C. 24, 28, 455 S.E.2d 698, 701 (Ct. App. 1995). Qualification as an expert "depends on the particular witness' reference to the subject." Gooding v. St. Francis Xavier Hospital, 326 S.C. 248, 253, 487 S.E.2d 596, 598 (1997); Suess, 318 S.C. at 285, 457 S.E.2d at 346. "'[A]n expert is not limited to any class of persons acting professionally.'" Gooding, 326 S.C. at 253, 487 S.E.2d at 598 (citing Botehlo v. Bycura, 282 S.C. 578, 586, 320 S.E.2d 59, 64 (Ct. App. 1984)). In addition, our courts place no exact requirement regarding how that knowledge or skill must be acquired by the witness. Honea, 295 S.C. at 531, 369 S.E.2d at 849. In fact, "[e]ven where the problem presented may be one that usually requires some scientific knowledge or training, a person

with long experience may testify as an expert although he or she did not pursue a special study of the matter." Id.

In McDill v. Mark's Auto Sales, 367 S.C. 486, 491, 626 S.E.2d 52, 55 (Ct. App. 2006), the Court of Appeals held the trial judge did not err in refusing to qualify a state trooper as an expert in accident reconstruction. Although the trooper had experience in investigating accidents and took a six-week accident reconstruction course along with updating courses, the trooper was not a member of the Highway Patrol's accident reconstruction team. The trooper did not use any particular reconstructive techniques in making his determination of the car speeds; rather, he relied upon statements from the drivers as to their speeds. The trooper had testified in federal court previously concerning his opinion as to accident investigation, not reconstruction. Id. As the Court noted, "if investigating an accident qualified an officer as an expert in accident causation, then every highway patrolman would qualify as an expert." Id.

In State v. Ellis, 345 S.C. 175, 177-178, 547 S.E.2d 490, 491 (2001), this Court held a police officer, who was qualified to testify as an expert in crime scene processing and fingerprint identification exceeded the scope of his expertise when he testified as to his conclusion drawn from the measurements and observations he made. In Ellis, the victim was found dead as a result of gunshot wounds near his bicycle and a knife. The defendant admitted to shooting the victim, but claimed he acted in self-defense when the victim dropped his bike and approached the defendant with the knife. When the victim refused to stop, the defendant shot the victim. The prosecution's theory of the case was that the defendant shot the victim while the victim remained on the bike. Id. at 176, 547 S.E.2d at 491. The police officer testified that the victim was on his bike when he was shot based upon his measurements and observations of the crime scene. Id. at 177-178, 547 S.E.2d at 491. Further, this Court held the error in allowing the officer to testify was not harmless in light

of the defendant's contention that he was acting in self-defense. Id. at 178, 547 S.E.2d at 491. This Court held the prosecutor was free to argue that the evidence supported an inference that the victim was on the bicycle at the time of the shooting, and the jury could have concluded as such, but the officer "was not qualified to give such an 'expert' opinion." Id.

As an initial matter, the trial judge correctly concluded the testimony offered by Hightower was scientific, technical, or required other specialized knowledge such that only an expert could testify accordingly. See United States v. Medley, 312 F. Supp.3d 493, 501 (D. Md. 2018) (stating that "testimony about how location may be determined from historical cell site billing records … is best regarded as expert testimony, not lay testimony, because it necessarily involves scientific, technical, or specialized knowledge"). However, the judge – and the Court of Appeals – incorrectly concluded Hightower was qualified as an expert.

Hightower, and the state, relied primarily upon his attendance at a two-day course, which occurred two months before Petitioner's trial and was sponsored by the FBI CAST Team, to qualify him as an expert in historical cell site analysis. Yet, the certificate issued to Hightower for his attendance at the program had "a bright red notation" that read as follows: "The Basic Historical Cell Site Analysis course does not provide the requisite knowledge or experience to qualify students as experts in historical call detail record analysis. It is designed to provide a foundation of understanding of the records." R. 252, ll. 11-20. The Court of Appeals ignored this fact in determining Hightower was qualified properly.

Hightower, who was "the director of the Intelligence Unit" at the Fourteenth Circuit Solicitor's Office, had never been qualified as an expert witness despite indicating that the entirety of his job at the solicitor's office focused on conducting historical cell phone analysis. Yet, the Court of Appeals credited Hightower's employment as a basis for his qualification.

Hightower had very little experience conducting analyses of historical cell site location information, and he had even less experience as a law enforcement officer. No one reviewed Hightower's work. He conducted his own peer review by doing a manual analysis of the data after using the software he obtained from one of the seminars he attended.

Although Hightower had attended only a handful of meetings regarding historical cell site location analysis, had very little experience conducting the analyses, and had never been qualified as an expert previously, the Court of Appeals held he was qualified as an expert in historical cell site location analysis to render opinions in that area.

Hightower's lack of training, education, and experience showed when he told the jurors that cell phones connect to the closest tower. "Law enforcement experts regularly tell juries that cell phones only connect to the closest cell tower, but this assertion is false." Thomas J. Kirkham, Rejecting Historical Cell Site Location Information as Unreliable Under Daubert and Rule 702, 50 U. Tol. L. Rev. 361, 367 (2019). In fact, "[c]ell phones generally connect to the cell tower with the strongest signal at that time, but the strongest signal will not always come from the closest cell tower. Countless factors affect which tower is chosen to connect a phone to a cellular network, and the network has its own methods for tower selection." Id. Cell phones "are constantly scanning the network [of towers] for the tower with the strongest available signal." Id. at 368. "A cell phone will relay its information to every available tower approximately once every seven seconds." Id.

Furthermore, "[e]ach cell tower is designed to cover a specific geographic area, but these areas are not uniform in size or shape." Id. at 369. "[T]he size and shape of a tower's coverage area is based on geography and various demands placed on the network. For example, some coverage areas are purposely designed to be long thin strips covering a stretch of busy highway." Id. Most cell towers have a range of six miles in rural areas and three miles in urban areas, but some can be

larger than twenty miles. Id. "The wide range of towers creates overlapping zones, which allows for two phones in the same location to connect to two different cell towers." Id.

"The main problem with using [cell tower location information] evidence to pinpoint an individual's location is that numerous factors affect which cell tower will connect a particular phone to the network at any given time. This fact is either not understood by the 'expert' witness or is understood but not adequately explained to the judge and jury." Id. at 370. There is a "false assumption by many in the legal community" "that a cell phone connected to Tower X will be located somewhere inside of the cell phone company's stated coverage area for Tower X." Id. Additionally, "[w]hen evidence is presented in the forms of maps created based on the call detail records, the expert should not include diagrams that purport to show the specific coverage area of a cell tower unless those maps are generated by the wireless telephone company." Id. (internal quotation omitted). The "so-called coverage maps" produced by the cellular company "show the *probable* coverage area of each tower, not the *possible* coverage area." Id. (emphasis in original).

Historical cell site data must be handled with care as it often convinces a jury of an independent and neutral reason to believe a person was at a particular place at a particular time. There is a serious risk that a jury will "overestimate the quality of the information" provided by the analysis. United States v. Hill, 818 F.3d 289, 299 (7th Cir. 2016). The Seventh Circuit warned that "caution" must be exercised when presenting historical cell site evidence to ensure "the level of precision – or imprecision – with which that particular evidence pinpoints a person's location at a given time" is communicated to the jury. Id. According to the Seventh Circuit, admitting such evidence "that overpromises on the technique's precision – or fails to account adequately for its potential flaws – may well be an abuse of discretion." Id.

Here, the trial judge failed to exercise the necessary caution when she qualified a member of the solicitor's office as an expert in historical cell site location analysis. Contrary to the holding by the Court of Appeals, the employee simply lacked the requisite knowledge, skill, experience, training, or education to form an opinion about the records he reviewed. Hightower's qualifications were a far cry from those of the expert in the recent case of State v. Warner, 430 S.C. 76, 84, 842 S.E.2d 361, 364-365 (Ct. App. 2020). The purported expert in that case "had over 800 hours of training in [cell site location information], including training by all the major cell phone carriers with their compliance personnel and network engineers." State v. Warner, 430 S.C. 76, 84, 842 S.E.2d 361, 364-365 (Ct. App. 2020), reh'g denied (May 28, 2020), cert. granted (Jan. 22, 2021). Additionally, he was "a certified FBI instructor" who had "taught CSLI analysis to state, local, and federal agencies." Id. Prior to testifying in Warner's case, he had "worked on over 150 investigations and testified as an expert on [cell site location information] eleven previous times." Id. Thus, the purported expert's qualifications in Warner far exceeded those possessed by Hightower. See also State v. Franks, 432 S.C. 58, 76, 849 S.E.2d 580, 590 (Ct. App. 2020) (holding a purported expert was qualified to testify as an expert in the use of GeoTime and other call records translation tools because he had fifteen years' experience working with call records and cell phone technology, observed several seminars about GeoTime, and used GeoTime in approximately fifty cases over the course of three or four years).

The erroneous finding by the trial judge allowed the jury to hear very damaging evidence from Hightower, who claimed that Petitioner's phone was using towers located near the site of the death around the time of death and his phone was using towers near where the body was found later. The damaging evidence was presented through a witness "imbued with the imprimatur of an expert witness," heightening the prejudicial nature of the judge's error. See State v. Chavis, 412 S.C. 101,

109, 771 S.E.2d 336, 340 (2015). The Court of Appeals erred by failing to reverse the trial judge's erroneous qualification of Hightower, an employee of the solicitor's office, as an expert in historical cell site location analysis. Hightower lacked the necessary education, training, knowledge, skill, or experience in the area, and his testimony buoyed the otherwise weak case presented by the state.

CONCLUSION

Petitioner respectfully requests this Court grant the petition for writ of certiorari and order full briefing on the issue presented.

Respectfully Submitted,

s/*Susan B. Hackett*
Susan B. Hackett
Appellate Defender

ATTORNEY FOR PETITIONER

This 30th day of March, 2021.