Dillon Reisman (374142021)
Ezra D. Rosenberg (012671974)
Jeanne LoCicero (024052000)
AMERICAN CIVIL LIBERTIES UNION
OF NEW JERSEY FOUNDATION
[redacted]
P.O. Box 32159
Newark, NJ 07102
(973) 854-1718
dreisman@aclu-nj.org

Maithreyi Nandagopalan*
INNOCENCE PROJECT, INC.
[redacted]
New York, NY 10013
(212) 364-5340

* *phv application forthcoming*

June 16, 2025

Honorable Chief Justice and Associate Justices
Supreme Court of New Jersey
25 Market Street
Trenton, New Jersey 08625

Re: A-44-24 *State v. Jule Hannah* (089819)
Appellate Division Docket No.: A-003528-21

Honorable Chief Justice and Associate Justices:

Pursuant to *Rule* 2:6-2(b), kindly accept this letter brief in the above-captioned case on behalf of amici curiae the American Civil Liberties Union of New Jersey ("ACLU-NJ") and the Innocence Project ("IP").

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STATEMENT OF FACTS AND PROCEDURAL HISTORY

Amici rely upon the statement of facts and procedural history contained in the Defendant's Appellate Division brief.

ARGUMENT

The State's entire case against Mr. Hannah hinged on Bridgeton Police Detective Leyman's implicit claim—testifying as a lay witness—that Mr. Hannah was inside the victim's vehicle because (a) his phone pinged cell towers a certain number of miles away from the car's known location and (b) the phone continued to ping towers on a path correlating to the route of the car.[1] The State staked its case on this logic, further arguing in summation that, because it had proof that Mr. Hannah may have been close to a cell tower at one point in time, and based on the purported personal knowledge of jurors, cell phones must *always* be physically close to the towers they connect to.[2]

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[1] *See, e.g.*, 8T 166:18–20 ("Q: [I]s this tower in proximity to that location . . . ? A: Yes, it's approximately a mile and a half south."); 8T 158:23–159:8 ("Q: And, directionally speaking, would that be north or south of the last tower that was accessed . . . ? A: Would be south. . . . Southeast. Q: And, again, heading towards Bridgeton or away from Bridgeton? A: Towards.").

[2] *See, e.g.*, 11T 91:24–92:1 ("[I]t's fair to conclude that the defendant's phone had to hit off of the tower that he was close to at all other points in time."); 11T 92:14–16 ("Common experience dictates that you have to be close to a tower in order to connect to a call.).

There's just one problem: that assertion is simply not true. As this Court recognized in *State v. Burney*, determining the coverage area and narrowing the alleged position of a phone is not a matter of a juror's common sense or even the personal experience of an expert, because raw cell site location information ("CSLI") may tell you nothing more than that a phone was somewhere within the coverage area of the cell tower. But determining the extent of that coverage area requires an expert to actually study the "factual evidence" and real data concerning the height of the towers, the surrounding terrain, signal frequencies, transmitter and phone power ratings, and antenna direction in order to opine on the possible location of a cell phone.

Allowing a lay witness and prosecutor in summation in this case to assert essentially the same thing as the expert in *Burney*, and with even less support, deprived Mr. Hannah of a fair trial. First, without an expert, CSLI testimony of the sort the State presented is highly prejudicial and misleading and should be excluded under N.J.R.E. 403. Second, it denied Mr. Hannah of his constitutional right to effective cross-examination on this crucial issue.

I. Expertise serves an essential role in guaranteeing the accuracy and reliability of CSLI testimony.

It is axiomatic that raw CSLI cannot be used to accurately locate a phone other than within a multi-mile area around a cell tower. *See, e.g.*, *United States v. Carpenter*, 819 F.3d 880, 885 (6th Cir. 2016) (noting expert's testimony that

cell towers can serve devices at a range of up to 20 miles), *rev'd on other grounds*, 585 U.S. 296 (2018). Drawing an inference from CSLI that the phone was in a specific place within that range requires expert testimony supported by factual evidence and data. *State v. Burney*, 255 N.J. 1, 25 (2023). The State failed to present this crucial evidence in this case.

In *Burney*, the State sought to have its expert witness testify to inferences about the phone's approximate location by applying a "rule of thumb" assumption that towers in the relevant area had a roughly one-mile coverage radius. *Id.* at 21. This Court held this testimony was improper. *Id.* at 25. Although the Court noted that other "state and federal courts have accepted expert testimony about cell site analysis" as evidence of a phone's presence "within a 'general area' at a particular time," *id.* at 21–22 (internal citations omitted), the *Burney* expert's one-mile radius "rule of thumb" was grounded in "nothing more than [his] personal experience," *id.* at 25. Thus, the *Burney* expert's testimony "constitute[d] an improper net opinion because it was unsupported by any factual evidence or other data." *Id.*

In this case, the State's evidence linking the CSLI data to Mr. Hannah's specific location is decidedly less robust than that provided by the expert witness in *Burney*: The State seeks to draw the critical inferences through a *lay* witness alone, a witness untrained in even the rudiments of the technical and

scientific disciplines that might offer the necessary supporting facts and data. That witness, Detective Leyman, understandably made no attempt to testify to the technical aspects of cell towers that are necessary to determine coverage areas, "including geography and topography, the angle, number, and directions of the antennas on the sites, the technical characteristics of the relevant phone, and environmental and geographical factors." *United States v. Hill*, 818 F.3d 289, 296 (7th Cir. 2016) (internal quotation marks omitted). Det. Leyman's vague beliefs as to how cell towers work make the grossly inadequate and inadmissible "rule of thumb" testimony in *Burney* seem almost robust.

Other courts that have addressed the use of CSLI as evidence of a phone or person's location have largely required expert testimony. *See, e.g.*, *State v. Johnson*, 797 S.E.2d 557, 563, 565–66 (W.Va. 2017) (collecting cases and holding expert witness required for CSLI testimony, as import of CSLI evidence necessarily involves interpretation of data, not just reading records). *United States v. Banks*, a Kansas federal district court case, is instructive: There the court admitted CSLI testimony—from an expert—in part because, unlike here, the expert could "explain[] candidly the strengths and limitations of relying on cell-site data to infer the location of a cell phone." *United States v. Banks*, 93 F.Supp.3d 1237, 1245 (D. Kan. 2015). The prosecution's theory

> of the cell-site data's relevance . . . requires a fact finder to understand, among other issues: (1) how cell

> towers communicate with cell phones; (2) how cell towers create coverage areas; (3) the relationship between coverage areas and tower connections; and (4) the relative importance of physical proximity and non-proximity factors for determining whether a cellular phone will connect to a particular cell tower.
>
> [*Id.* at 1248–49.]

Crucially, the *Banks* court required an expert even though the government sought to establish merely that the phone was more likely than not within a large judicial district; it did not involve any attempt to overtly or implicitly pinpoint the exact location of a phone or trace its movement over time, as the State attempted to do here with a lay witness. *Id.* at 1240, 1251.

Even the few courts that have allowed lay witnesses some role in presenting CSLI evidence have set strict limits on such testimony. In *Torrence v. Commonwealth*, for example, the Kentucky Supreme Court held that a lay witness could merely "mark[] points on a [map]" of the locations of cell towers. *Torrence v. Commonwealth*, 603 S.W.3d 214, 228 (2020). But if the State wanted to offer "an opinion about inferences that may be drawn from that information," it would need to present an expert. *Id.* The court also emphasized that the map of tower locations, unlike in this case, "was not central to the Commonwealth's case"; the prosecution used the tower evidence only to counter a claimed alibi and show in broad terms where the accused was *not*, rather than draw inferences about where he *was*. *Id.* at 225–26. The former use

generally entails less precision, and fewer leaps of logic hinging on expert knowledge, than the latter.

Here, in contrast, the connection between the CSLI data and Mr. Hannah's whereabouts was the crux of the State's case. Without the benefit of expert witness testimony, the State's conclusions as to Mr. Hannah's precise location were premised on wholly inadequate and incorrect statements about what inferences could be drawn from the CSLI data.

First, Det. Leyman's testimony directly framed cell tower location as a proxy for the location of a connecting phone and its user. 8T 21:5-19. Based on his limited understanding of cell towers, Det. Leyman then opined "in all but explicit words" that Mr. Hannah must have been in Mr. Lopez's car in the hours before Mr. Lopez's death because his phone connected to towers roughly consistent with the assumed route of Mr. Lopez's car. *State v. Hannah*, No. A-3528-21 (App. Div. Aug. 9, 2024) (slip op. at 19). The State spent much of Det. Leyman's testimony tracing the *sequence* of towers Mr. Hannah's phone accessed in comparison to the route the State believed Mr. Lopez's car took, 8T 155:25-173:17, which it then used in summation to argue to the jury that Mr. Hannah's phone must have been in the decedent's car, 11T 84:22–85:25, 88:1–89:23. Indeed, repeatedly, the State had Det. Leyman note the distances between the car's location on surveillance video and the towers accessed,

incorporating implicit assumptions about the towers' coverage areas and how geography determines which tower a phone connects to. 8T 164:12-171:10.

Yet Det. Leyman did not—could not, as he was unqualified to do so—testify to the limitations and uncertainties inherent in those assumptions. He offered no testimony about the locations of other nearby towers to which Mr. Hannah's phone *did not* connect, so the jury could not know if the towers the phone in fact connected to would truly have produced the strongest signals along Mr. Lopez's presumed route. Det. Leyman was unqualified to offer testimony about the towers' ranges, the factors other than distance that affect which tower a phone connects to, or the degree of uncertainty and lack of precision in extrapolating a phone's location from a tower's. *Hannah*, slip op. at 11 (noting trial court's denial of State's motion to qualify Leyman as an expert). As such, his testimony obscured CSLI's inherent uncertainties and exaggerated its precision, accuracy, and reliability.

II. The State's failure to offer an expert to present CSLI evidence in Mr. Hannah's case violated N.J.R.E. 403 and constitutional due process principles.

A. Without context provided by an expert, the State's presentation of CSLI was prejudicial, misleading, confusing, and ultimately inadmissible under N.J.R.E. 403.

N.J.R.E. 403 provides a necessary piece of the framework for evaluating whether and how a lay witness might offer commentary on other evidence. *See*

State v. Watson, 254 N.J. 558, 602 (2023).[3] Expert testimony was required both to establish that the CSLI would have probative value in estimating Mr. Hannah's location relative to the victim's car and to present such evidence in a non-misleading, clear way that a jury could understand.

To effect Rule 403, courts conduct a balancing test to determine whether the probative value of the proffered testimony "is substantially outweighed by the risk of undue prejudice, juror confusion, or undue delay." *Hrymoc v. Ethicon, Inc.*, 254 N.J. 446, 464 (2023). On one side of the balance, the probative nature of evidence is evaluated by the "logical connection between the proffered evidence and a fact in issue." *State v. Cole*, 229 N.J. 430, 447 (2017) (quoting *State v. Bakka*, 176 N.J. 533, 545 (2003)). If evidence is of "questionable reliability," that connection may weaken and diminish the evidence's probative value. *See State v. Chen*, 402 N.J. Super. 62, 68 (App.

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[3] The Appellate Division, in holding that it was error to admit the CSLI testimony in this case, properly applied the other part of this framework, N.J.R.E. 701: When the detective, as a lay witness, drew the connection between the cell towers Mr. Hannah's phone connected to and the alleged path of the victim's vehicle, he was adding extrinsic commentary that was not helpful to the jury and offered a conclusion on the central disputed fact at trial. *Hannah*, 2024 WL 3738458, at *7; *see Watson*, 254 N.J. at 592, 603 (citing *State v. Higgs*, 253 N.J. 333, 363, 366–67 (2023)) (requiring that lay witness testimony concerning other evidence must aid factfinder by "shedding light on the determination of a disputed factual issue" without opining on "reasonably disputed" factual issues).

Div. 2008). On the other side, prejudice, misunderstandings, and confusion are more likely when the evidence and proofs offered involve technical concepts outside of the ordinary experience of the jury. For example, scientific evidence that has inherently uncertain or probabilistic characteristics is highly likely to be misunderstood by the jury and misused by prosecutors.

The South Carolina Supreme Court highlighted the risk of jury confusion posed by technical evidence in a recent case that illuminates the issue before this Court. *State v. Phillips*, 844 S.E.2d 651, 657 (S.C. 2020). *Phillips* dealt with testimony from an expert rather than a lay witness, but as here, the testimony drew conclusions far beyond what the data could support, and the risks the court articulated are equally if not more applicable here. *Id.* at 661–62. In *Phillips*, the expert, who had analyzed "touch" or "trace" DNA evidence from a sample taken from the victim's clothing, could draw only a limited conclusion from her analysis; while she could not exclude the defendant as a contributor to the sample, neither could she exclude "half of the population." *Id.* at 655. Despite the limited utility of this finding, confusing questioning led her to give incorrect answers that inflated the import of her finding. *Id.* at 661.

The *Phillips* court readily found it an abuse of discretion to have allowed this DNA testimony. It observed that juries can easily be swayed by the "aura of reliability or invincibility" of seemingly scientific and objective evidence,

especially when they have no opportunity to understand the limits of that science. *Id.* at 657; *see also id.* at 662 (noting State's expert failed to explain complexities and limits of trace DNA analysis).[4] Worse, as in this case, misunderstandings of the technology's limits can lead the prosecutor to deploy the language and concepts of the technology in patently incorrect ways. *See id.* at 663 (highlighting how prosecutor misstated to jury in closing that because DNA could not rule out defendant, defendant must have touched victim).[5] In sum, the deficient presentation of DNA testimony merited exclusion under South Carolina's Rule 403, a rule nearly identical to New Jersey's.

Our Court has had fewer opportunities to consider Rule 403's role in evaluating technical evidence in criminal trials, but similar principles arise from caselaw.

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[4] In fact, empirical research shows that jurors give great weight to scientific-sounding testimony even when told it is not scientifically validated. *See, e.g.*, N.J. Schweitzer, *Communicating Forensic Science*, Nat'l Inst. of Just. Report, Project No. 2008-DN-BX-0003 8–9 (May 2016) (finding in study of mock jurors that "perceptions of the forensic science evidence were the primary predictor of the jurors' verdict choices," but that "jurors were not overall affected by whether the expert's methods had been scientifically validated").

[5] *See* T11 88:19-25 ("[W]hat you saw on the evidence is the defendant's phone hitting off of towers traveling in the same direction as the victim from Cacia's to Parvins Mill Road and then into the City of Bridgeton. And based on that it is fair to conclude that the defendant was in the victim's car."). As discussed *supra* at pp. 4–5, this is not remotely a fair conclusion: several variables influence the distance from which a phone may connect to a tower, as well as which tower a phone accesses—none of which Leyman was qualified to explain.

First, expertise is only unnecessary to combat potential prejudice when the subject matter of the testimony is within jurors' everyday experience. In *Brenman v. Demello,* this Court held that photos of vehicle damage, offered to infer "the cause or extent of [the occupants'] injuries," were not unduly prejudicial under Rule 403 even without expert testimony. *Brenman v. Demello*, 191 N.J. 18, 21, 31–32 (2007). The Court concluded the relationship between a photo of a car accident and the occupants' injuries is at the "center of [jurors'] everyday knowledge." *Id.* at 32. Though exceptions to that common sense exist, the Court held that a plain-language instruction reminding juries that "some bad accidents result in little injury [and] that some minor accidents result in serious injury," was sufficient to resolve potential prejudice. *Id.* at 36.

Second, juries may be misled or confused by complex, technical evidence that is inadequately explained to them. In *Hrymoc v. Ethicon, Inc.*, a defendant-company sought to introduce evidence that it had complied with the Federal Drug Administration's ("FDA") clearance process for a pelvic mesh medical device. *See Hrymoc*, 254 N.J. at 455. Although the Court granted that the opposing party had opened the door to limited uses of that evidence in that case, it deemed such evidence "generally inadmissible," since a jury might be misled into thinking that the FDA clearance process proved the product's

safety, when in fact it only proved its "substantial equivalence" to other devices on the market. *Id.* at 466–67, 473–74. In so finding, the Court looked carefully at the intricacies of the FDA approval process and crafted an instruction that would address those nuances for the jury. *Id.* at 474.

While the balancing required by Rule 403 is fact-dependent, the upshot of these cases is clear. When the subject-matter of the evidence is within the everyday knowledge of the jury, simple instructions may cure any potential misapprehension or prejudice. *See Brenman*, 191 N.J. at 36. But when subject-matter is technical or complex, then the State must be expected to have an expert accurately explain the limitations of its technical analysis to the jury, *see Phillips*, 844 S.E.2d at 663, or prepare an instruction that accounts adequately for the limitation in specific terms, *see Hrymoc*, 254 N.J. at 474.

In this case, the State failed to present a fair and accurate picture of the limits of its CSLI evidence. Likewise, the trial court's instructions did not serve to cure the prejudice—and indeed could not have, without an expert to explain *what* the limitations of the CSLI evidence were. Without the testimony of an expert to explain CSLI, the State's strong assertion that it could so reliably place Mr. Hannah in a moving vehicle was improper and inadmissible.

As discussed in Point I *supra*, Det. Leyman's CSLI testimony sought to improperly establish that Mr. Hannah's phone was in Mr. Lopez's car when it

connected to the cell towers it accessed. In doing so, Leyman relied on myriad implicit, untested assumptions apt to mislead the jury into "overestimat[ing] the quality of the information provided by [CSLI] analysis," and failed to account for or explain the many environmental and technical factors that limit CSLI. *Hill*, 818 F.3d at 299 ("The admission of historical cell-site evidence that overpromises on the technique's precision—or fails to account adequately for its potential flaws—may well be an abuse of discretion."); *see also Burney*, 255 N.J. at 21 (quoting *Hill*, 818 F.3d at 295–96). Similarly, failure to account for those factors diminished its probative value by lowering its accuracy. *See, e.g.*, *State v. Patton*, 419 S.W.3d 125, 132 (Mo. Ct. App. 2013) (noting that expert testimony on the "many variables that influence cell site signal strength" was needed to establish that CSLI was "actually probative of whether [defendant] was in one area rather than the other").

Juror confusion due to this incomplete testimony is especially likely given that, despite the omnipresence of cell phones, the workings of cell towers are not in the everyday knowledge of the average juror. Indeed, cell phones' very popularity could lead jurors to believe lay witnesses and prosecutors telling them, as in this case, that it's "[c]ommon experience" that a person must be close to a cell tower for a call to connect. 11T 92:14–16. But that is not true. *See Bender v. Adelson*, 187 N.J. 411, 431 (2006) ("Summation

commentary, however, must be based in truth, and counsel may not misstate the evidence nor distort the factual picture.") (internal quotation marks omitted). In many cases, especially in rural areas, cell towers can be sparse—often three to five miles apart. *See Hill*, 818 F.3d at 295. The range of a single cell tower can serve phones up to 20 miles away. *Carpenter*, 819 F.3d at 885.

Finally, the trial court's attempts at a limiting instruction could not cure the State's misleading and confusing presentation of the CSLI evidence. Instructions must actually explain the nature of the potential prejudice, so that the jury may better avoid it. *See Hrymoc*, 254 N.J. at 474. An effective limiting instruction requires firmness, clarity, immediacy, specificity, and reason-giving. *See State v. Vallejo*, 198 N.J. 122, 134–35 (2009); *State v. Herbert*, 457 N.J. Super. 490, 506–07 (App. Div. 2019) ("An instruction also can be more effective when it explains itself."). Prejudice concerning evidence "that bears directly on the ultimate issue before the jury" is harder to cure through an instruction; such evidence is likely to loom larger in the jury's mind, making it more difficult for the jury to discount the evidence as a judge might instruct. *Id.* at 505 (citing *Richardson v. Marsh*, 481 U.S. 200, 208 (1987)).

Here, the instructions on the crucial issue of the CSLI evidence not only were not self-explanatory, but may have added to the confusion caused by Det. Leyman's testimony and the State's closing argument. The trial judge told the

jury that "just because there is a cell tower somewhere proximate to something else doesn't mean that that phone was located any particular spot within any particular distance from that tower," suggesting that the jury could conclude only "that there was a call received at that location and that at the same time something else was happening at another location and they were so far apart." 8T 152:13–23. While the court reiterated its limiting instruction at the close of the case, the jury was never told *why* CSLI data has inherent uncertainty;[6] they got only an unsupported suggestion that a phone and the tower may be "so far apart," without any guidance on how to understand CSLI's limitations.

Ultimately, CSLI data, without sufficient and competent explanatory testimony, is ripe for the kind of prejudice, confusion, and misunderstanding that Rule 403 is designed to avoid. Prejudice can only be prevented through the testimony of a qualified expert witness who can testify on the allowable inferences that could be drawn from CSLI evidence and, equally importantly, the limitations on those inferences.

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[6] *See, e.g.,* 11T 138:24–139:5 ("You cannot conclude, and I think I—I don't know whether that instruction got in here or not, but you can't conclude that a phone was in any particular spot simply because it connected to a tower. You can, however, utilize that information along with other information if you think it's appropriate to do so."). The trial court in fact *could not* supply the jury with the reasons for CSLI's limitations and uncertainties; only an expert witness could.

B. Depriving Mr. Hannah of a meaningful opportunity to cross-examine an expert on CSLI deprived him of due process.

On an even more fundamental level, the State's failure to provide an expert for Mr. Hannah to cross-examine constituted a basic failure of constitutional due process, eroding the interests undergirding his confrontation rights. Meaningful cross-examination is one of "the minimum essentials of a fair trial," essential to a fair defense, and a *sine qua non* for the integrity not just of a verdict but of the legal system overall. *Chambers v. Mississippi*, 410 U.S. 284, 294–95 (1973); *see* U.S. Const. amend. VI; N.J. Const. art. I, ¶ 10.

Even where evidence generated from technology may not be testimonial under a traditional understanding of the Confrontation Clause, this Court has recognized that a fair opportunity for cross-examination is nonetheless constitutionally required. *State v. Chun*, 194 N.J. 54, 140–41 (2008). In *Chun*, this Court held that requiring the operator of an Alcotest breath testing device to "be made available for cross-examination is an important constitutional safeguard," even though the device's results were largely not operator-dependent. *Id.* at 140. Even if documents related to the operator's credentials and the condition of the device are admissible as business records, courts must "ensure that each defendant has the opportunity to confront the witness who has potentially relevant testimony." *Id.* at 141–42. Yet here, where the requisite relevant—and potentially exculpatory—testimony about CSLI's limitations

could only be tendered by an expert, the State's failure to present such an expert denied Mr. Hannah that opportunity.

At its heart, cross-examination exists to test the *reliability* of the evidence presented against the accused. As the Supreme Court has noted, the Confrontation Clause serves its "ultimate goal" of "ensur[ing] the reliability of evidence" by requiring "that reliability be assessed in a particular manner: by testing in the crucible of cross-examination." *Crawford v. Washington*, 541 U.S. 36, 61 (2004). The same principle undergirds this Court's determination that a trial court errs when it limits an accused's cross-examination rights in ways that do not "serve the interests of fairness *and reliability*." *State v. Castagna*, 187 N.J. 293, 311 (2006) (emphasis added).

Yet cross-examination cannot serve its intended reliability-testing function if courts allow witnesses to introduce testimony or evidence about which they cannot be properly cross-examined. Several evidentiary provisions and court rules thus work to keep out testimony that is untestable through cross-examination. *See, e.g.*, N.J.R.E. 701 (limiting lay witness opinions); N.J.R.E. 802 (generally prohibiting hearsay); *R.* 3:13-3(b)(1)(I) (requiring expert witnesses to disclose bases for their opinions). All serve to give defense counsel the opportunity for meaningful cross-examination—and ensure that witnesses make no assertions they lack the knowledge to explain.

However, if witnesses like Det. Leyman give opinions or draw inferences unsupported by either direct personal knowledge or empirically well-grounded expertise, then they cannot explain the basis for their opinions and inferences. Nor can they articulate the uncertainties, limitations, and potential errors affecting the relevance and weight of their conclusions. Cross-examination under these conditions cannot serve as the guarantor of reliability—or the guardian of due process—it is meant to be. *See Wilder v. State*, 991 A.2d 172, 189, 200 (Md. Ct. Spec. App. 2010) (holding prosecution's admission of CSLI through lay officer to be reversible error, noting defense counsel's argument that "[o]n cross-examination [he would] not . . . be able to get into anything [be]cause [the officer]'s not an expert on this").[7]

The risks of allowing such testimony are clear: It produces wrongful convictions. Misleading forensic science testimony has "exaggerated the connection between the crime scene evidence and the person of interest, mischaracterized exculpatory results as inconclusive, or downplayed the

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[7] *See also* Alexandra Wells, *Ping! The Admissibility of Cellular Records to Track Criminal Defendants*, 33 St. Louis Pub. L. Rev. 487, 504–05 (2014) (pointing out futility of cross-examining a witness who "testifies without the . . . knowledge expected of an expert" and arguing that, as a result, CSLI evidence should always require an expert trained "on the specialized, scientific, or technical aspects of cell towers").

limitations of the forensic science method . . . used."[8] Faulty forensic science contributed to the underlying wrongful convictions in 29% of the 3,686 exonerations documented by the National Registry of Exonerations, including more than half of the DNA exonerations litigated by the Innocence Project.[9] Typically expert witnesses present such testimony; even then, wrongful convictions are rife with cases of experts offering opinions ungrounded in science, unsupported by empirical evidence, or overblown relative to what the data do show.[10] The risk of misleading testimony is even greater when lay witnesses testify on technical subjects whose limitations they cannot explain.

It is unsurprising that so many courts have required experts to present CSLI evidence and offer potential inferences from that data, since anything less would deny defendants meaningful cross-examination. When the witness

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[8] Innocence Project, *Misapplication of Forensic Science*, https://perma.cc/4BE2-BX5L (last visited June 5, 2025).

[9] Nat'l Registry of Exonerations, *% Exonerations by Contributing Factor* (2025), https://perma.cc/ZG8V-QA4A (last visited June 5, 2025); Innocence Project, *Explore the Numbers: Innocence Project's Impact* (2025), https://perma.cc/D3LN-LTL3 (last visited June 5, 2025).

[10] *See, e.g.*, President's Council of Advisors on Sci. & Tech., *Forensic Science in the Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* 27-30 (2016) ("[E]xpert witnesses have often overstated the probative value of their evidence, going far beyond what the relevant science can justify."); Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 Va. L. R. 1, 14 (2009) (reviewing 137 exonerees' trial transcripts and finding that 60% "involved invalid forensic science testimony," even where underlying discipline was valid).

presenting such data is not an expert—and when the evidence is presented with the overt or implicit aim of inferring the accused's precise path or location in relation to the crime scene—CSLI evidence impinges on the due process rights the Confrontation Clause was intended to protect.

CONCLUSION

The State's failure to present CSLI evidence through the testimony of an expert deprived Mr. Hannah of the due process protection of meaningful cross-examination and gave the jury a highly misleading and prejudicial view of CSLI evidence's accuracy. For the foregoing reasons, the Court should affirm.

Respectfully submitted,

Dillon Reisman (374142021)
Ezra D. Rosenberg (012671974)
Jeanne LoCicero (024052000)
AMERICAN CIVIL LIBERTIES UNION
OF NEW JERSEY FOUNDATION
[redacted]
P.O. Box 32159
Newark, NJ 07102
(973) 854-1718
dreisman@aclu-nj.org

Maithreyi Nandagopalan*
INNOCENCE PROJECT, INC.
[redacted]
New York, NY 10013
(212) 364-5340
mnandagopalan@innocenceproject.org

**phv application forthcoming*