

PUBLISHED

**UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT**

UNITED STATES OF AMERICA,

Plaintiff-Appellee,

v.

KEVIN TYRELLE SUMMERS,

Defendant-Appellant.

No. 06-5009

Appeal from the United States District Court
for the District of Maryland, at Greenbelt.

Peter J. Messitte, Senior District Judge.

(8:05-cr-00101-PJM)

Argued: September 23, 2011

Decided: December 16, 2011

Before KING, SHEDD, and FLOYD, Circuit Judges.

Affirmed by published opinion. Judge King wrote the opinion, in which Judge Shedd joined. Judge Floyd wrote an opinion concurring in the judgment.

COUNSEL

ARGUED: Lauren Elizabeth Case, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Greenbelt, Maryland, for Appellant. Sujit Raman, OFFICE OF THE UNITED STATES ATTORNEY, Baltimore, Maryland, for Appellee. **ON BRIEF:** James Wyda, Federal Public Defender, Denise C. Barrett, Assistant Federal Public Defender, OFFICE OF THE FEDERAL PUBLIC DEFENDER, Baltimore, Maryland, for Appellant. Rod J. Rosenstein, United States Attorney, Bryan M. Giblin, Assistant United States Attorney, OFFICE OF THE UNITED STATES ATTORNEY, Baltimore, Maryland, for Appellee.

OPINION

KING, Circuit Judge:

Kevin Tyrelle Summers appeals his drug trafficking and firearm convictions, entered in the District of Maryland in accordance with the jury's verdict. Summers contends that the district court erroneously admitted into evidence a jacket recovered from the vicinity of his arrest. He asserts further that the court compounded its error by declining to exclude, on Confrontation Clause grounds, expert evidence concerning DNA testing performed on the jacket, together with evidence documenting the jacket's handling and custody during the testing process. Discerning no reversible error, we affirm.

I.

During the evening of November 18, 2004, Summers, wearing a black North Face-branded jacket, stood with another man near the corner of Glacier Avenue and Fable Street in Capitol Heights, Maryland. Corporal Patrick Hampson, a uniformed detective with the Prince George's County

Police Department, emerged from his cruiser to ask the pair about an exchange of gunfire that had occurred shortly before at the intersection. Both men fled, with Summers sprinting down Glacier Avenue past undercover detectives Chad Schmick and Kevin Morris, who were parked at the curb. Summers detoured through a couple of backyards on Kayak Avenue before surrendering to Morris. By then, however, Summers was no longer wearing the jacket.

Hampson and Schmick found a black North Face jacket atop one of the houses along Summers's flight path. Hampson placed the jacket and its contents — a Hi-Point Model C 9mm handgun, eleven rounds of ammunition unloaded from the pistol's clip, and a large packet containing more than ninety grams of crack cocaine — inside separate evidence bags for transport in his cruiser. Hampson filled out property receipts on the items to catalog them and to direct forensic examination.

On March 7, 2005, Summers was indicted for possession with intent to distribute crack, in violation of 21 U.S.C. § 841(a)(1) ("Count One"), and possession of a firearm by a felon, contravening 18 U.S.C. § 922(g) ("Count Two"). A superseding indictment of May 4, 2006, charged Summers with the additional offense of possession of a firearm during and in relation to a drug trafficking crime, conduct proscribed by 18 U.S.C. § 924(c) ("Count Three").

Following the federal indictment, the county police sent a black jacket to the FBI's Baltimore field office. The jacket was then forwarded to the agency's laboratory in Quantico, Virginia, arriving at the Evidence Control Unit (the "ECU") on May 11, 2005. The ECU routed the jacket to DNA Analysis Unit 1, where, according to an internal log, it was delivered to storage on May 13, 2005. The log shows that FBI analysts took possession of the jacket on May 18, 2005, to perform DNA testing, then shuttled it back to storage on May 26, 2005, for eventual return to the ECU on October 18, 2005.

At trial, a black jacket was marked for identification as Government's Exhibit 1. Asked whether he recognized the exhibit, Hampson answered that "[i]t looks like the black Northface coat the defendant was wearing." J.A. 73.¹ Schmick and Morris were rather less equivocal. Schmick confirmed that Exhibit 1 was "the coat that we recovered," *id.* at 152, and, when questioned whether the jacket in the courtroom was the one that Summers wore while fleeing, Morris responded simply, "Yes, it was," *id.* at 267.

The government's case-in-chief otherwise featured the expert testimony of Brendan Shea, a forensic examiner at the Quantico laboratory who supervises Unit 1's analysts and directs them to perform particular tests on evidence. After identifying Government's Exhibit 1 as the coat submitted to the lab, Shea explained that he had directed his subordinate analysts to conduct two methods of polymerase chain reaction based, short tandem repeat typing on the jacket. The lab also performed DNA typing on buccal swabs taken from Summers's mouth. Shea compared the typing data, testifying that although DNA from at least four different people was found on the jacket, Summers was the major contributor.

Shea documented the typing results and his conclusions in a three-page report. The report contained a table juxtaposing the numerical identifiers of the allele found at corresponding loci of the DNA extracted from the jacket and the buccal swabs, revealing an exact match. Shea stated "to a reasonable degree of scientific certainty" that Summers was the major DNA contributor, statistically calculating the probability of a random match as equal to or less than one in 280 billion. *See* J.A. 524-25. Shea signed the report, and no other lab employee was named therein or testified at trial. The report was admitted into evidence as Government's Exhibit 25.

¹Citations herein to "J.A. __" refer to the contents of the Joint Appendix filed by the parties to this appeal.

The government presented no evidence of the jacket's whereabouts from the time Corporal Hampson placed it in his cruiser until it arrived at the FBI laboratory. While the jacket was at the lab, the internal log documented its movement within Unit 1. The log reflects that four lab employees signed for and took custody of the jacket at different times. Based on the varying legibility of their signatures, some of the employees' identities are more susceptible than others of being ascertained. It is clear, however, that none of them were Shea, though he did initial the log at its bottom right corner. *See* J.A. 200. The log was admitted into evidence as part of Defendant's Exhibit 3.

On cross-examination, Shea acknowledged that he could not confirm that the jacket he tested was the one that Hampson recovered. Though verifying the authenticity of the log, Shea could only speak in generalities concerning the jacket's safekeeping during the time that it was housed at the lab, testifying that the jacket would have been subjected to the standard routing and inventory process. Arguing to the jury at closing, defense counsel emphasized Shea's concession: "Brendan Shea told you, six or seven months, I don't know what happened to that jacket. I can't tell you that that jacket is the same jacket that was allegedly pulled off of Kevin Summers." J.A. 504-05.

Counsel's argument ultimately failed to persuade the jury, which found Summers guilty of the drug and firearm possession charges underlying Count One and Count Two. The jury acquitted Summers on Count Three, concluding that he did not, beyond a reasonable doubt, possess the firearm during and in relation to a drug trafficking crime. The district court entered judgment on the jury's verdict, sentencing Summers to 262 months in prison, followed by five years of supervised release. Summers timely noted this appeal, and we possess jurisdiction pursuant to 28 U.S.C. § 1291.

II.

We review for abuse of discretion a trial court's decision concerning the admissibility of evidence. *See United States v. Myers*, 589 F.3d 117, 123 (4th Cir. 2009). We will not adjudge the court to have abused its discretion unless its ruling was "arbitrary and irrational." *See United States v. Haney*, 914 F.2d 602, 607 (4th Cir. 1990). We review de novo, however, an evidentiary ruling implicating the Confrontation Clause. *See United States v. Williams*, 632 F.3d 129, 132 (4th Cir. 2011). Finally, we review for abuse of discretion a trial court's determination that an evidentiary item's chain of custody has been sufficiently established. *See United States v. Ricco*, 52 F.3d 58, 61 (4th Cir. 1995).

III.

The Sixth Amendment affords a criminal defendant "the right . . . to be confronted with the witnesses against him." U.S. Const. amend. VI. Summers maintains that he was convicted by the testimony of witnesses whom he was not permitted to cross-examine, in derogation of the Confrontation Clause. According to Summers, the government was constitutionally compelled to produce at trial the laboratory employees who signed the internal log, along with the subordinate analysts who actually conducted the DNA typing upon which Shea's expert conclusions were premised.

A.

In *Crawford v. Washington*, 541 U.S. 36 (2004), the Supreme Court unanimously ruled that the defendant's Confrontation Clause rights had been violated by the admission into evidence of his nontestifying wife's statement to the police. The opinion of the Court, authored by Justice Scalia, overruled *Ohio v. Roberts*, 448 U.S. 56 (1980), which had permitted statements of unavailable witnesses to be admitted at trial insofar as they bore "adequate indicia of reliability,"

meaning that they satisfied a "firmly rooted hearsay exception" or were otherwise bolstered by "particularized guarantees of trustworthiness." *Roberts*, 448 U.S. at 66.

Crawford changed the law to condition the admission of such statements on (1) the witness being unavailable at trial, and (2) the defendant having had the prior opportunity to cross-examine the witness. *Crawford* applies whenever "testimonial evidence is at issue." 541 U.S. at 68. Inasmuch as it was the result of formal police interrogation, the evidence at issue in *Crawford* plainly met the Court's criterion, although it elected to "leave for another day any effort to spell out a comprehensive definition of 'testimonial.'" *Id.* The Court did distinguish "nontestimonial hearsay," however, noting that "an approach that exempted such statements from Confrontation Clause scrutiny altogether" would be consistent with the Framers' intent. *Id.*; cf. *United States v. Cabrera-Beltran*, 660 F.3d 742, 753 (4th Cir. 2011) (holding that border crossing records not created for trial are nontestimonial and admissible under public records exception to hearsay rule).

The distinction between testimonial and nontestimonial statements came to the forefront in *Davis v. Washington*, 547 U.S. 813 (2006), in which the trial court had admitted a recording of a 911 call from a woman to prove, in the absence of the woman's testimony, that the defendant, her former boyfriend, had assaulted her. The Supreme Court unanimously ruled that the woman's statement was nontestimonial. The Court again spoke through Justice Scalia:

Statements are nontestimonial when made in the course of police interrogation under circumstances objectively indicating that the primary purpose of the interrogation is to enable police assistance to meet an ongoing emergency. They are testimonial when the circumstances objectively indicate that there is no such ongoing emergency, and that the primary purpose of the interrogation is to establish or prove past

events potentially relevant to later criminal prosecution. . . . This is not to imply, however, that statements made in the absence of any interrogation are necessarily nontestimonial. . . . And of course even when interrogation exists, it is in the final analysis the declarant's statements, not the interrogator's questions, that the Confrontation Clause requires us to evaluate.

Davis, 547 U.S. at 822 & n.1. The Court assumed, for the sake of argument, that the questions posed by the 911 operator eliciting the incriminating responses were the acts of the police, constituting "interrogation." *See id.* at 823 n.2. Notably, Justice Thomas concurred only partially in the judgment, concluding that the responses were admissible because they were not part of a "formalized dialogue" resembling testimony. *See id.* at 840 (Thomas, J., concurring in the judgment in part and dissenting in part).

About a year after the Supreme Court's decision in *Davis v. Washington*, we had occasion to apply its teachings in *United States v. Washington*, 498 F.3d 225 (4th Cir. 2007). In the latter proceeding, an appeal from federal criminal driving convictions, the district court admitted the expert testimony of a lab director with respect to his report (which was not part of the evidentiary record) of gas chromatograph tests performed on the defendant's blood, though the technicians who operated the diagnostic machines did not appear at trial. We affirmed the convictions, concluding that the test data revealing the presence of alcohol and PCP in the defendant's blood were not the technicians' statements, but instead were "the 'statements' of the machines themselves." *Washington*, 498 F.3d at 230 (emphasis deleted). Judge Niemeyer, writing for the panel majority, explained that such "raw data," being "independent of human observation or reporting," was not susceptible to cross-examination and thus did not implicate the Confrontation Clause. *Id.*

Next, in *Melendez-Diaz v. Massachusetts*, 129 S. Ct. 2527 (2009), the Supreme Court considered whether sworn certificates from forensic analysts, admitted to attest that the substance seized from the defendant was cocaine, were "testimonial" for Confrontation Clause purposes. The Court, by a 5-4 vote, held in the affirmative and vacated the defendant's conviction, with Justice Scalia observing for the majority that the certificates were "functionally identical to live, in-court testimony, doing 'precisely what a witness does on direct examination.'" *Melendez-Diaz*, 129 S. Ct. at 2532 (quoting *Davis*, 547 U.S. at 830). The Court pointed out that "the sole purpose of the affidavits was to provide prima facie evidence of the composition, quality, and the net weight of the analyzed substance," and that it could be safely assumed "that the analysts were aware of the affidavits' evidentiary purpose." *Id.* (internal quotation marks omitted). Because the analysts could have been available to testify (or, at least, there was no showing to the contrary) and because there had been no opportunity for them to be cross-examined, *Crawford* demanded that the defendant's conviction be overturned.² Justice Thomas, providing the determinative fifth vote, wrote a concurring opinion noting his adherence to the position that extrajudicial statements implicate the Confrontation Clause "only insofar as they are contained in formalized testimonial materials, such as affidavits, depositions, prior testimony, or confessions." *Id.* at 2543 (Thomas, J., concurring).

Not long thereafter, we decided *United States v. Johnson*, 587 F.3d 625 (4th Cir. 2009). In that case, the trial court admitted the expert testimony of police officers to decipher

²Justice Scalia cautioned, however, that "we do not hold, and it is not the case, that anyone whose testimony may be relevant in establishing the chain of custody, authenticity of the sample, or accuracy of the testing device, must appear in person as part of the prosecution's case." *Melendez-Diaz*, 129 S. Ct. at 2532 n.1. Rather, "[i]t is up to the prosecution to decide what steps in the chain of custody are so crucial as to require evidence; but what testimony *is* introduced must (if the defendant objects) be introduced live." *Id.*

code words used in telephone conversations between drug traffickers. The experts' testimony was based upon their experience in general, together with particular knowledge gleaned from the investigation. Judge Wilkinson authored our opinion, pointing out that *Crawford* "in no way prevents expert witnesses from offering their independent judgments merely because those judgments were in some part informed by their exposure to otherwise inadmissible evidence." *Johnson*, 587 F.3d at 635. On the other hand, *Crawford* would apply to bar testimony "where the witness is used as little more than a conduit or transmitter for testimonial hearsay, rather than as a true expert whose considered opinion sheds light on some specialized factual situation." *Id.* Thus, "an expert's use of testimonial hearsay is a matter of degree." *Id.* Judge Wilkinson's opinion distinguished *Melendez-Diaz*, observing that, in *Johnson*, the government's experts appeared at trial and were cross-examined. *See id.* at 636.

Most recently, the Supreme Court issued its opinion in *Bullcoming v. New Mexico*, 131 S. Ct. 2705 (2011). *Bullcoming* was another 5-4 case, and this time Justice Ginsburg delivered the opinion of the Court, which attracted the concurrence of Justice Thomas in everything but Part IV and footnote 6 (reiterating Justice Scalia's "primary purpose" test in *Davis* for evaluating whether a statement is testimonial). *Bullcoming* involved a drunk-driving trial in which the state introduced a lab report certifying the results of a blood-alcohol test performed on a sample taken from the defendant. The signatory analyst did not testify, "having very recently [been] put on unpaid leave," 131 S. Ct. at 2711-12 (alteration in original), but another analyst familiar with the lab's procedures did. The testifying analyst had not participated in or observed the defendant's blood test, however.

The Supreme Court vacated the defendant's conviction: "As a rule, if an out-of-court statement is testimonial in nature, it may not be introduced against the accused at trial unless the witness who made the statement is unavailable and

the accused has had a prior opportunity to confront that witness." *Bullcoming*, 131 S. Ct. at 2713. The Court stressed that the first analyst's certification "reported more than a machine-generated number," in that it also verified that the lab had received the blood sample intact, that the sample was in fact the defendant's, that the analyst performed a particular test in accordance with a specific protocol, and that the process had not been compromised. *Id.* at 2714. Although the report was in this case unsworn, it was yet testimonial because it was "created solely for an 'evidentiary purpose,'" *id.* at 2717 (quoting *Melendez-Diaz*, 129 S. Ct. at 2532), and was "'formalized' in a signed document," *id.* (quoting *Davis*, 547 U.S. at 837 n.2 (Thomas, J., concurring in the judgment in part and dissenting in part)).

Writing separately, Justice Sotomayor pointed out that *Bullcoming* "is not a case in which the person testifying is a supervisor, reviewer, or someone else with a personal, albeit limited connection to the scientific test at issue." 131 S. Ct. at 2722 (Sotomayor, J., concurring in part). According to Justice Sotomayor, "[i]t would be a different case if, for example, a supervisor who observed an analyst conducting a test testified about the results or a report about such results." *Id.* In addition, *Bullcoming* "is not a case in which an expert witness was asked for his independent opinion about underlying testimonial reports that were not themselves admitted into evidence." *Id.* (citing Fed. R. Evid. 703). Finally, Justice Sotomayor noted that *Bullcoming* — perhaps in contrast to the situation we confronted in *United States v. Washington*, *supra* — "is not a case in which the State introduced only machine-generated results, such as a printout from a gas chromatograph," and that the Court did not decide "whether . . . a State could introduce (assuming an adequate chain of custody foundation) raw data generated by a machine in conjunction with the testimony of an expert witness." *Id.*

B.

Against the backdrop of *Crawford* and the subsequent authorities applying it, we evaluate first the Confrontation

Clause implications, if any, of the absence of trial testimony from the FBI lab employees who signed the internal log documenting custody of the jacket. Justice Scalia may well have had things like the log in mind when he spoke in *Melendez-Diaz* of evidence that "may be relevant in establishing the chain of custody, authenticity of the sample, or accuracy of the testing device." 129 S. Ct. at 2532 n.1; *see supra* note 2. Although the government is required, after *Melendez-Diaz*, to provide live testimony if it deems evidence of certain "steps in the chain of custody" to be crucial, *see* 129 S. Ct. at 2532 n.1, no such requirement inheres when chain-of-custody evidence is introduced by the defense, *see Evans v. Verdini*, 466 F.3d 141, 147 (1st Cir. 2006) (declining to find Sixth Amendment violation where defendant's questioning of witness opened door to rebuttal testimony not subject to cross-examination).

In this case, Summers caused the log to be admitted as part of Defendant's Exhibit 3. Thus, to the extent that there could have been points to be scored with the jury by challenging the handling of the jacket at the FBI lab, it was incumbent upon the defense to subpoena the lab employees. *Cf. Melendez-Diaz*, 129 S. Ct. at 2540 (recognizing, in contrasting situation, where prosecution ignores its duty to provide necessary witnesses, defendant's subpoena power "is no substitute for the right of confrontation").

The prosecutor's decision to forgo any chain-of-custody evidence with respect to the jacket suggests that the government considered that part of its case to be something less than crucial. The government's strategy in this regard appears to have been vindicated, notwithstanding the risk that jurors who watch television and movies may expect evidence revealing the chain of custody, providing a tenacious defense lawyer the opportunity to exploit that expectation by peppering prosecution witnesses with questions probing the omission. Nonetheless, "[t]he chain of custody is not relevant when a witness identifies the object as the actual object about which he testi-

fied." *United States v. Phillips*, 640 F.2d 87, 94 (7th Cir. 1981).

In deciding whether the jacket was admissible, the district court needed only to satisfy itself that it was "improbable that the original item had been exchanged with another or otherwise tampered with." *United States v. Jones*, 356 F.3d 529, 535 (4th Cir. 2004); *see* Fed. R. Evid. 901(a) ("The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims."). Establishing a strict chain of custody "is not an iron-clad requirement, and the fact of a missing link does not prevent the admission of real evidence, so long as there is sufficient proof that the evidence is what it purports to be and has not been altered in any material respect." *United States v. Ricco*, 52 F.3d 58, 61-62 (4th Cir. 1995). The district court's role is merely to act as a gatekeeper for the jury, and the proponent of the evidence need only make a *prima facie* showing of its authenticity. *See United States v. Vidacak*, 553 F.3d 344, 349 (4th Cir. 2009).

At trial, Hampson, Schmick, and Morris each identified Government's Exhibit 1 as the North Face jacket Summers wore the night he was arrested. The officers' testimony was more than enough to put the issue before the jury, which heard in counterbalance Shea's testimony on cross-examination that he had no idea where the jacket had been prior to its receipt by the lab six or seven months following Summers's arrest, or whether it had been tampered with. During the defense's closing argument, counsel emphasized Shea's admissions; absent any affirmative evidence of tampering, however, the jury simply declined to attribute much importance to the imperfections in the government's documentation. Under the circumstances, the district court did not abuse its discretion in ruling that admission of the jacket into evidence satisfied the Rule 901(a) threshold.

C.

1.

A more substantial question is presented by the absence at trial of the analysts responsible for conducting the DNA tests on the jacket, the results of which provided the basis for Shea's testimony and the preparation of his report. We perceive little difficulty with the admission of Shea's testimony, given the predominance therein of his independent, subjective opinion and judgment relative to the lesser emphasis accorded the objective raw data generated by the analysts. *See* Fed. R. Evid. 703 (instructing that facts or data upon which an expert bases an opinion or inference, if of a type reasonably relied on by similar experts, "need not be admissible in evidence in order for the opinion or inference to be admitted").

On the witness stand, Shea painstakingly explained the process whereby he, and he alone, evaluated the data to reach the conclusion that, to a reasonable degree of scientific certainty, Summers was the major contributor of the DNA recovered from the jacket. In that respect, Shea's testimony was no different, and no more problematic, than that of the police officers in *Johnson*. Far from being "a conduit or transmitter" of what his subordinate analysts had concluded about the jacket, Shea's opinion was an "original product" that could be (and was) readily "tested through cross-examination." *Johnson*, 587 F.3d at 635.

To a considerable extent, much the same can be said about Shea's written report, which more or less mirrored his trial testimony. The appearance of the analysts' testing results within, however, gives us pause insofar as the table detailing those results constituted a more prominent part of the report than the underlying data did of the testimony. This is not to imply that the data was unimportant to Shea's opinion, for of course it was crucial. The difference is that while Shea's testimony focused upon the conclusions he drew from the data,

the report invited the jurors' attention to the data's numerical identifiers. Admission of the report presented an unnecessary risk that the jury would improperly evaluate the DNA evidence based on its lay perceptions of what the data meant rather than on Shea's expertise and any potential inaccuracies in his conclusions that might be developed on cross-examination. *Cf.* Fed. R. Evid. 703 ("Facts or data that are otherwise inadmissible shall not be disclosed to the jury . . . unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.").

Presented with an analogous situation, the Seventh Circuit affirmed the defendant's conviction for trafficking in crack cocaine, notwithstanding that the head of the lab unit testified in place of the analyst who actually tested the seized substance. *See United States v. Turner*, 591 F.3d 928 (7th Cir. 2010). In *Turner*, the supervisor essentially peer-reviewed his subordinate's report, which was not admitted into evidence, and then testified, based on his own training and experience, that the substance produced at trial was crack. The court of appeals rejected the defendant's Confrontation Clause challenge, relying on another drug trafficking case, *United States v. Moon*, 512 F.3d 359 (7th Cir. 2008). The court in *Moon* held, in agreement with our decision in *United States v. Washington*, that pure instrument read-outs are not testimonial. *See Moon*, 512 F.3d at 362; *see also Turner*, 591 F.3d at 932.

Indeed, our *Washington* precedent controls the result in Summers's case. The numerical identifiers of the DNA allele here, insofar as they are nothing more than raw data produced by a machine, are indistinguishable in character from the gas chromatograph data in *Washington* and the chromatograph and spectrometer results in *Moon* and *Turner*. Undoubtedly, the more sound practice would have been to exclude Shea's report from evidence, in the same fashion that the foundational reports were treated in *Washington* and *Turner*, but the jury's access to the report during deliberations in no way

detracts from the validity of its verdict. *See Moon*, 512 F.3d at 362 (opining that non-testifying expert's "own conclusions based on the data should have been kept out of evidence," but declining to disturb conviction for plain error in light of testifying expert's "live testimony and availability for cross-examination").

The Supreme Court's decisions in *Melendez-Diaz* and in *Bullcoming* do not compel a different result. The notarized certificates of analysis at issue in *Melendez-Diaz* revealed considerably more than raw data; they concluded that the substance attributed to the defendant's possession "was found to contain: Cocaine." 129 S. Ct. at 2531. To be sure, Shea's report also contained the statement on the ultimate issue that Summers was "the major contributor of the DNA obtained from" the jacket, J.A. 524 (endnote omitted), but that was *Shea's* statement and not that of the analysts, and was in any event merely duplicative of his permissible trial testimony.³

Bullcoming is distinguishable because it was patently not, as Justice Sotomayor stressed, a case contesting the Sixth Amendment implications of machine-generated results. Summers has nonetheless directed our attention to a case recently published by the Court of Appeals of Maryland, *Derr v. State*, ___ A.3d ___, No. 6 Sept. Term, 2010, 2011 WL 4483937 (Md. Sept. 29, 2011). The court in *Derr* reversed the defendant's judgment of conviction for multiple sexual offenses and remanded for a new trial, holding that the trial court had run afoul of the Confrontation Clause by permitting the prosecution's expert to testify regarding DNA analyses on crime scene evidence performed in years past by others, and to testify with respect to the reference sample analysis undertaken

³Because we conclude that the numerical identifiers in Shea's report are not statements implicating the Confrontation Clause, we need not consider whether an expert's report is sufficiently "formalized" to satisfy Justice Thomas's definition of a testimonial statement as expressed in his concurring opinion providing the deciding vote in *Melendez-Diaz*.

by her subordinates, without the supervisor's active participation or personal observance.

In so ruling, the *Derr* court concluded that "the testing procedures and method employed, the DNA profile created, and the conclusion that there is a match are testimonial in nature," with the result that the prosecution was obliged to produce the analysts who actually performed the testing. 2011 WL 4483937, at *1. The DNA profile referenced by the court is derived from an electropherogram, that is, a "graph that displays a series of different-colored peaks of different heights," documenting "the allele values at each chromosomal location or loci." *Id.* at *5. According to the court, "the DNA profile is a statement of the analyst that essentially says: 'This is the DNA profile for this person.'" *Id.* at *12. Based on the court's explanation, we perceive that the "DNA profile" it held to be a testimonial statement closely corresponds to what we have called in this case the "numerical identifiers of the DNA allele."

To the extent that *Derr* ascribes testimonial significance to machine-generated results — a conclusion that cannot be squared with our own circuit precedent — we find its reasoning unpersuasive. *Melendez-Diaz* and *Bullcoming* each involved one or more absent expert's "certification" with respect to the meaning of the underlying raw data, and no such certification is at issue here. The only evidence interpreting the raw data was provided by Shea via his report and live testimony, and he was strenuously cross-examined by the defense.

We are cognizant of the concerns attendant to excusing analysts and technicians from trials under such circumstances, such concerns being best expressed, perhaps, by our late colleague Judge Michael in dissent in *United States v. Washington*:

Finally, it is not for the majority to say that "there would be no value in cross-examining the lab techni-

cians." A defendant's right to confront witnesses against him does not depend on whether a court believes that cross-examination would be useful. The strategic decision of whether to cross-examine a laboratory technician is one for the defendant to make. . . . Forensic test reports are not always accurate. Testing errors are sometimes caused by technician inexperience, sample contamination, failure to follow laboratory protocols, or breaks in the chain of custody. . . . The best way to expose errors or falsification in testing is through cross-examination of the laboratory technician.

498 F.3d at 235 (Michael, J., dissenting). We heartily agree with Judge Michael that the handling of evidence, calibration of equipment, and the like can be fertile ground for cross-examination, but we must temper our agreement with the practical observation that a serious challenge to processing defects is likely to arise only infrequently. When the issue is palpable, it is up to the defense to advise the prosecution in good faith such that the attendance of appropriate witnesses may be secured. *See Moon*, 512 F.3d at 361 ("A defendant who sincerely wants live testimony should make the demand, so that the declarant can be produced. The lack of a demand for testimony by an available declarant leads to the conclusion that the appellate argument is strategic rather than sincere."); *cf. Washington*, 498 F.3d at 220 ("The value of cross-examination might relate to authentication or to a description of the machines or to the chain of custody, but none of these were issues at trial."). Of course, the duty to produce necessary witnesses and, it necessarily follows, the consequences of their absence, is always assumed by the prosecution. *See Melendez-Diaz*, 129 S. Ct. at 2540 (declaring that "the Confrontation Clause imposes a burden on the prosecution to present its witnesses, not on the defendant to bring those adverse witnesses into court").

2.

Even were we not persuaded that our *Washington* precedent controls the result in this case, effectively rebutting Summers's contention that he was entitled to confront the lab analysts at trial, his conviction need not be disturbed if the purported error was harmless beyond a reasonable doubt. *See Chapman v. California*, 386 U.S. 18, 24 (1967). We have previously mentioned that admission of Shea's report was almost wholly cumulative of Shea's live testimony, a circumstance that casts substantial doubt upon the importance of the report in establishing Summers's guilt.

More fundamentally, however, we cannot help but note that the government's decision to introduce DNA evidence derived from the jacket had the unintended collateral effect of rendering a straightforward case significantly more complex. With respect to proving ownership of the jacket, the evidence introduced through Shea was scarcely more than the thin glaze on a dense cake baked to doneness by the officers' largely unshakable testimony that: (1) Summers was wearing the jacket before he ran; (2) he was not wearing the jacket when he was caught; and (3) the jacket was found in the immediate vicinity of his flight path. Although we suppose that the jury could have been impressed that Quantico weighed in on the issue, we hardly think that the government needed to rely on the FBI's star power to prevail in its open-and-shut case. Even had the district court's admission of Shea's report constituted error, it would surely be harmless beyond a reasonable doubt.

IV.

Pursuant to the foregoing, we affirm the district court's entry of judgment on the jury's verdict.

AFFIRMED

FLOYD, Circuit Judge, concurring in the judgment:

Although I concur in the judgment, I respectfully disagree with the majority's decision to reach the Confrontation Clause issue.

As we recognized in *Norfolk Southern Railway Co. v. City Of Alexandria*, 608 F.3d 150 (4th Cir. 2010), "the principle of constitutional avoidance . . . requires the federal courts to strive to avoid rendering constitutional rulings unless absolutely necessary." *Id.* at 156-57. "It is not the habit of the Court to decide questions of a constitutional nature unless absolutely necessary to a decision of the case." *Ashwander v. Tenn. Valley Auth.*, 297 U.S. 288, 347 (1936) (Brandeis, J., concurring) (internal quotation marks omitted).

Here, the majority states that any error in regards to a Confrontation Clause violation is harmless beyond a reasonable doubt. I agree with this determination. Hence, because I am of the opinion that it is unnecessary to resolve a thorny issue such as this in what is an evolving area of constitutional law, I would decline to address the alleged Confrontation Clause violation.