

**State of Utah, Plaintiff and Appellee, v. Raymond L. Butterfield, Defendant and Appellant.**

**No. 990654**

**SUPREME COURT OF UTAH**

**2001 UT 59; 27 P.3d 1133; 425 Utah Adv. Rep. 8**

**July 10, 2001, Filed**

**SUBSEQUENT HISTORY:** The Publication Status of this Document has been Changed by the Court from Unpublished to Published July 31, 2001.

**PRIOR HISTORY:** Third District, Salt Lake. The Honorable Sheila K. McCleve.

**DISPOSITION:** Affirmed the jury's verdict and the trial court's subsequent sentence.

**COUNSEL:** Mark L. Shurtleff, Att'y Gen., Kenneth A. Bronston, Asst. Att'y Gen., C. Dane Nolan, Susan Hunt, Salt Lake City, for plaintiff.

Stephanie Ames, Salt Lake City, for defendant.

**JUDGES:** Chief Justice Howe, Justice Durham, Justice Durrant, and Justice Wilkins concur in Associate Chief Justice Russon's opinion.

**OPINIONBY:** RUSSON

**OPINION:**

RUSSON, Associate Chief Justice:

Defendant Raymond Butterfield ("Butterfield") appeals from convictions of aggravated burglary, rape of a child, sodomy on a child, and three counts of aggravated sexual abuse of a child, all first degree felonies. See Utah Code Ann. § § 76-6-203 & 76-5-402.1, -403.1, -404.1 (1999). Butterfield contends that his convictions should be reversed because the trial court (1) improperly allowed the State to admit DNA evidence without laying a proper foundation to show that the scientific principles and techniques underlying the evidence were inherently reliable; (2) abused its discretion in excluding Butterfield's proposed expert testimony on the inherent deficiencies of eyewitness identification; and (3) erroneously failed to declare a mistrial following an improper remark made by a State witness in the presence of the jury. We affirm.

**BACKGROUND**

**I. FACTS**

On May 17, 1998, two sisters, V.R. and M.R., and their friend B.M.--all under the age of fourteen--decided to sleep outside in a tent in V.R. and M.R.'s backyard. Sometime between 8:00 and 9:00 p.m., the three girls took some blankets, CDs, and a board game into the tent. A short time later, M.R. left the tent and went inside the house to sleep on the couch. After M.R. left the tent, V.R. and B.M. turned off a light that hung inside the tent and went to sleep.

Later that night, V.R. awoke to the barking of her neighbor's dogs. Almost immediately thereafter, a man ripped a hole in the side of the tent. V.R. and B.M. screamed and hid under the blankets. The man then entered the tent and jumped on top of V.R. stating, "Shut up or I'll slice your throat." The man then proceeded to remove V.R.'s clothes and, while doing so, demanded that B.M. remove her clothes as well. When the man had removed V.R.'s sweat pants and underwear, he forced "his finger inside of [her] vagina," "licked" her chest, kissed her "on the mouth," and forced his "tongue into [her] mouth." The man also forced his penis inside V.R.'s "mouth" and "vagina." During the assault, B.M.--lying only inches from V.R.--could hear V.R. pleading and crying, "Please don't, please don't."

After raping and sexually assaulting V.R., the man then proceeded to sexually assault B.M., forcing his finger into her vagina, fondling her chest, and ordering her to take his penis and "move it up and down." The attacker then proceeded to move from one girl to the next with his groping and molestation. Throughout the assault, the man repeatedly ordered the girls to keep quiet or he would "slice [their] throats."

At some point in the ordeal, which lasted nearly an hour and a half, the girls' attacker turned on the light that hung inside the tent and rummaged through the girls' belongings. The light was on for nearly ten minutes. Although the attacker demanded that the girls close their eyes, V.R. peeked from the blankets and could see different portions of the man's face. As he searched through the girls' belongings, the man commented on their CDs, talked to B.M., and remarked how "cute" her braids were.

Thereafter, the man asked V.R. and B.M. to tell him who was inside the house, threatening that if they did not tell him he would "slit [their] throats." Both V.R. and B.M. responded that they "didn't know." The attacker then stated, "I'm going inside right now, and if I catch you guys out of the tent or if somebody is out here with you, I'll kill you and then I'll kill whoever is with you. After leaving the tent, the attacker broke into the house and proceeded to sexually assault and molest M.R., who was sleeping on a couch in the living room. When M.R. yelled for her father, the man told her that he would "stab [her]" if she was not quiet. The man then lifted her shirt and bra and "licked [her] chest." After warning her not to peek, he lowered her shorts and underwear and forced his "finger in[to her vagina]." The man then threw a pillow over M.R.'s face and left through the back door. M.R. estimated that the sexual assault lasted for nearly ten minutes.

After the attacker left the house, M.R. went downstairs and told her parents what had happened. M.R.'s parents immediately called the police. When the police arrived, they found B.M. screaming and M.R. in shock. B.M. told the police that the attacker was a man who lived in an apartment down the street from V.R. and M.R.'s house, and who had spoken with the girls earlier in the day while they were riding their bikes around their neighborhood. The three girls were then transported to the South Salt Lake Police Department where V.R. and M.R. were interviewed by Detective William Hogan. Consistent with B.M.'s statements at the house, V.R. told Detective Hogan that the attacker was a man who lived near her neighborhood, and who had spoken with the girls earlier in the day. Specifically, V.R. explained that prior to the attack, a man on a bike approached the girls, stated that he was a "cop," and then rode to an apartment down the street from V.R. and M.R.'s house. A short while later, the man returned, again asserting that he was a policeman and that, therefore, they could not call the police on him. V.R. thought this behavior "weird." V.R. told Detective Hogan that the next time she saw the man was in her tent that night. From their various conversations, and after further investigation, Detective Hogan identified the attacker as defendant Raymond Butterfield.

After the interviews at the South Salt Lake Police Department, V.R., M.R., and B.M. were each separately examined and interviewed by a pediatrician at Primary Children's Hospital. The pediatrician found fresh bruises on V.R.'s right breast, abrasions on the inside wall of her vagina, and tears in the hymen, one of which was still bleeding. The doctor concluded that V.R.'s injuries were consistent with her story that she had been raped. The doctor found similar injuries when she examined B.M. and M.R., concluding that their injuries were consistent with their story that the attacker had sexually assaulted and molested them.

The day after the incident, Detective Hogan, accompanied by another police officer, went to Butterfield's apartment. Butterfield answered the door wearing a white undershirt and blue jeans. After identifying himself as a policeman, Detective Hogan asked Butterfield if he would come to the South Salt Lake Police Department for questioning regarding the sexual assault of V.R., M.R., and B.M. Butterfield agreed. Upon their arrival at the police station, Butterfield waived his Miranda rights, and therefore Detective Hogan conducted a formal interview. Butterfield was then transported to the Salt Lake County Jail where his clothes were retained after a policeman noticed blood on his undershirt.

After interviewing Butterfield, Detective Hogan assembled a six-photo array, including a photograph of Butterfield that he obtained from the Salt Lake County Jail. All the photographs were black and white and depicted similarly looking individuals. Detective Hogan then separately presented V.R., M.R., and B.M. with the photo array. V.R. and M.R. each identified Butterfield as the attacker, although B.M. did not.

Meanwhile, DNA analysis was performed on a sample of blood taken from Butterfield's undershirt. The DNA testing was performed by Ms. Pilar Shortsleeve, supervising criminalist of the Utah State Crime Lab's serology DNA division. The sample was compared with DNA testing that was done on a sample of V.R.'s blood. The particular type of DNA testing employed--polymerase chain reaction ("PCR") n1 using short tandem repeats ("STR"), n2 to wit: "PCR STR" DNA testing--was relatively new. The Utah State Crime Lab concluded that the DNA results of the undershirt

sample matched the DNA results of V.R.'s blood. Dr. Lynn Jorde, Chairman of the Department of Human Genetics at the University of Utah School of Medicine, who later examined the results, testified that the probability of a random individual other than V.R. matching the blood on Butterfield's undershirt was 215 billion to 1.

n1 PCR-based DNA testing is primarily used when, as in this case, the quantity or quality of genetic material recovered from a crime scene is too small or degraded to be tested by the Restriction Fragment Length Polymorphism ("RFLP") method. The PCR method has been described as follows:

The PCR process copies DNA fragments similar to the way DNA replicates itself during mitosis. Through heating the DNA sample in a thermal cycler, the process separates the helix into separate strands. Primers composed of short DNA segments are added to define the target sequence of DNA. Then, a basic solution containing the enzyme DNA polymerase and four basic nucleotides are added to the primed DNA sample. The added nucleotides pair with the exposed nucleotides on the separated target-strands in accordance with the G-C, A-T pairing rule. From the original DNA segment, two identical segments result. The thermal cycler runs through its cycle approximately thirty-two times, amplifying the original sample by a factor of two billion.

State v. Harvey, 151 N.J. 117, 699 A.2d 596, 616 (N.J. 1997).

n2 STR testing is a particular method of PCR testing, and has been described as follows:

STR is an acronym for short tandem repeat. A tandem repeat involves multiple copies of identical DNA sequence arranged in direct succession in a particular region of a chromosome. A short tandem repeat is a tandem repeat in which the repeat units are three, four, or five base pairs (a base pair has two complementary nucleotides). Loci containing STRs are scattered throughout the chromosomes in enormous numbers. Such loci have a fairly large number of alleles and are usually capable of unique identification.

Commonwealth v. Rosier, 425 Mass. 807, 685 N.E.2d 739, 742 (Mass. 1997). Accordingly, like PCR testing, STR testing uses PCR methods to greatly amplify a short segment of DNA, but involves amplification of loci containing STRs.

Based upon the eyewitness identifications and the DNA evidence, Butterfield was charged with aggravated burglary, rape of a child, sodomy on a child, and three counts of aggravated sexual abuse of a child, all first degree felonies. After a jury trial, Butterfield was convicted on all counts and sentenced to statutory five-to-life terms for aggravated burglary and aggravated sexual abuse of a child, and fifteen-to-life terms for rape of a child and sodomy on a child--all terms to run consecutively and with a recommendation that no parole be granted.

## II. PROCEDURAL HISTORY

### A. Evidentiary Hearing

Prior to trial, the State gave notice that it intended to introduce DNA evidence at trial. Butterfield filed a motion in opposition, arguing that under this court's standard for the admission of scientific evidence set forth in *State v. Rimasch*, 775 P.2d 388 (Utah 1989), the PCR STR DNA testing employed in this case should not be admitted. Specifically, Butterfield argued that the underlying principles and techniques of PCR STR DNA testing were too new to be considered inherently reliable; that the particular material and instrumentation used to effectuate the test--the Perkin-Elmer automated capillary electrophoresis machine ("ABI CE310") and the Perkin-Elmer Profiler Plus Amplification Kit, which contains the tagged fluorescent primers that are attached to the STRs and identified by the ABI. CE310's laser--were also unreliable; and that the State's proposed expert witness, Ms. Pilar Shortsleeve, was not qualified to testify to the validity of the PCR STR methodology, or to establish that the DNA testing was performed properly in this case.

In response, the State filed a memorandum in support of the introduction of the DNA evidence. In its memorandum, the State argued that DNA test results involving PCR amplification have been held to be scientifically valid and reliable by numerous appellate courts in other jurisdictions; that the process of obtaining DNA sequences obtained from PCR amplification of loci containing STRs has been approved by each court to consider the reliability of the evidence; and that the validity of PCR STR DNA testing has been accepted in the scientific community. Moreover, the State ar-

gued that the instrumentation used to effectuate the PCR STR test--the Perkin-Elmer Profiler Plus Amplification Kit and the ABI CE310 electrophoresis machine--had undergone rigorous internal and external validation processes and were also inherently reliable. Finally, the State argued that Ms. Pilar Shortsleeve, due to her vast experience and training in PCR and STR DNA analysis, was qualified to testify concerning the inherent reliability of PCR STR testing as well as to establish that the test was properly applied to the samples tested in this case.

After a six-day evidentiary hearing on the matter, in which the State and Butterfield each presented expert testimony, the trial court concluded that (1) "STR based evaluation has been shown to yield valid, reliable results"; (2) "the scientific principles and methods used in STR DNA testing are sufficiently similar to those used in other PCR-based DNA testing and restriction fragment length polymorphism . . . DNA testing to be considered inherently reliable"; (3) "the DNA testing in this case was performed properly by qualified experts who are highly experienced and are well-trained, work in an accredited lab which is subject to internal and external audits, use procedures and protocols that comply with generally accepted guidelines and employ instrumentation which has undergone a rigorous validation process"; and (4) "the DNA evidence offered in this case [was] more probative than prejudicial." Accordingly, the trial court granted the State's motion to introduce evidence that DNA from a blood stain on an undergarment that Butterfield was wearing at the time of his arrest matched the DNA of V.R. The ruling also allowed the State to introduce expert testimony regarding the statistical probabilities of such a match.

#### B. Butterfield's Eyewitness Identification Expert

Pursuant to section 77-17-13 of the Utah Code, Butterfield gave notice that he intended to call an expert witness at trial to testify concerning memory and various factors that can affect the accuracy of eyewitness identification. In response, the State moved to preclude the proposed expert testimony. The State argued that Butterfield's proffered expert testimony on eyewitness identification should not be allowed because it did not concern the specific facts of the case; because expert testimony regarding the reliability of eyewitness identification would infringe on the jury's responsibility to weigh the credibility of the witnesses; and because the jurors would be presented with an instruction that would adequately and thoroughly explain how to evaluate eyewitness identification presented at trial. The trial court granted the State's motion, excluding the proposed expert testimony.

#### C. Motion for Mistrial

Finally, Butterfield filed a second pretrial motion to exclude evidence of his prior bad acts and crimes in accordance with rule 404 of the Utah Rules of Evidence. The State stipulated to the motion, and the trial court granted it. However, during direct examination by the prosecutor, a witness for the State--Detective Hogan--testified that he obtained the photograph of Butterfield that was used in the photo array from the "Salt Lake County Jail." Butterfield's defense counsel did not object when the above statement was made. Nevertheless, based on the statement, Butterfield's defense counsel moved the trial court for a mistrial, arguing that Detective Hogan's remark implied that Butterfield had a prior criminal record and that, therefore, Detective Hogan's remark deprived Butterfield of a fair trial. The trial court denied the motion, however, ruling that Detective Hogan's remark was not elicited by the prosecutor, was "unnoticeable to the jury," and therefore did not prejudice Butterfield.

Shortly thereafter, juror No. 7 informed the bailiff that he had overheard comments by court staff regarding the case. During questioning by the trial court to ascertain what the juror had heard, juror No. 7 stated that during his lunch break he heard a court employee state, presumably speaking of Butterfield, "Did you get a look at that guy? Something happened on 24th South and 2nd East. The guy is a sexual predator." Juror No. 7 also commented that "in combination with what [he] heard [from the court employee]," Detective Hogan's remark that he had obtained the photograph of Butterfield used in the police photo array from the Salt Lake County Jail did suggest that the photograph was related to a prior conviction, although he did not know whether the prior conviction was for a similar offense. In view of the damaging conversation, the trial court dismissed juror No. 7, despite the fact that the juror emphatically stated he could decide the case without drawing unfavorable inferences. The trial court also questioned the bailiff and the remaining jurors, determining that no other jurors overheard the damaging conversation. Nevertheless, Butterfield renewed his motion for a mistrial, which the trial court again denied.

## ANALYSIS

### I. DNA EVIDENCE

Butterfield's first argument on appeal is that the trial court erred in allowing the State to introduce DNA evidence at trial, which identified the blood on Butterfield's undershirt as that of V.R. Specifically, Butterfield challenges the trial court's pretrial ruling that the DNA evidence was admissible, arguing that the State failed to lay an adequate foundation

to show that the scientific principles and techniques underlying the evidence were inherently reliable as required by *State v. Rimmasch*, 775 P.2d 388 (Utah 1989). In doing so, Butterfield challenges the qualifications of the State's expert witness, the PCR STR methodology in general, and the instrumentation used to effectuate the PCR STR testing--the ABI CE310 automated capillary electrophoresis machine and the Profiler Plus Amplification Kit, which contains the tagged fluorescent primers that are attached to the STRs and identified by the ABI CE310's laser.

#### A. Witness Qualifications

We first address Butterfield's argument that the State's expert witness, Ms. Pilar Shortsleeve, did not have the "educational background" to qualify as an expert in DNA analysis, particularly DNA analysis involving the PCR STR methodology. n3

n3 Apparently, Butterfield also argues that Ms. Shortsleeve was not qualified to testify as an expert because she worked at the Utah State Crime Lab and was therefore "biased." However, Butterfield's brief wholly fails to adequately set forth an argument as required by rule 24(a)(9) of the Utah Rules of Appellate Procedure with regard to this issue. Indeed, Butterfield's brief merely contains one sentence stating that "as a criminalist at the Utah state crime lab, [Ms. Shortsleeve] was biased, in that she had a vested interest in seeing that the results were found to be reliable." Despite this conclusory statement, Butterfield provides this court with no meaningful legal analysis or any citation to pertinent legal authority. Therefore, because Butterfield has inadequately briefed this issue, we do not address it. See *MacKay v. Hardy*, 973 P.2d 941, 948 n.9 (Utah 1998) (and cases cited therein); *State v. Thomas*, 961 P.2d 299, 305 (Utah 1998). This court "'is not simply a depository in which the appealing party may dump the burden of argument and research.'" *State v. Bishop*, 753 P.2d 439, 450 (Utah 1988) (quoting *Williamson v. Opsahl*, 92 Ill. App. 3d 1087, 416 N.E.2d 783, 784, 48 Ill. Dec. 510 (Ill. App. Ct. 1981)).

The general rule for admissibility of expert testimony is set out in rule 702 of the Utah Rules of Evidence, which 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.

In determining whether a particular witness qualifies as an expert, "we have repeatedly held that trial courts 'are to be given a wide measure of discretion . . .'" *State v. Crosby*, 927 P.2d 638, 645 (Utah 1996) (quoting *Butler, Crockett & Walsh Dev. Corp. v. Pinecrest Pipeline Operating Co.*, 909 P.2d 225, 233 (Utah 1995)); see also *State v. Espinoza*, 723 P.2d 420, 421 (Utah 1986).

Butterfield contends that Ms. Shortsleeve did not have the "educational background" to qualify as an expert because she had only a bachelor of science degree in medical technology. In support of this argument, Butterfield relies on *Phillips ex rel. Utah State Department of Social Services v. Jackson*, 615 P.2d 1228 (Utah 1980), where this court held that a lab technician with a bachelor of science degree in bacteriology, who worked at the lab that conducted the paternity test at issue, was not qualified to testify to the validity of the paternity test. *Id.* at 1236. Butterfield's reliance on *Phillips* is misplaced. In *Phillips*, this court did hold that the lab technician was "clearly not qualified to testify with respect to the basic validity of the [paternity] test." *Id.* However, the *Phillips* court did not disqualify the testimony because the lab technician did not have an advanced degree. Rather, the *Phillips* court disqualified the technician as an expert because the technician's "work with HLA tissue typing was used in connection with organ transplantation," not paternity identification, and "it [was] not possible to discern from the record whether the reliability claimed for HLA tests in determining tissue compatibility in organ transplants is transferable to paternity identification." *Id.*

In this case, unlike *Phillips*, the State presented affirmative, uncontradicted evidence that Ms. Shortsleeve was a qualified expert in the area in which she was testifying--DNA analysis and serology, including PCR STR analysis. Indeed, the record indicates that Ms. Shortsleeve is the supervising criminalist of the Utah State Crime Lab's serology DNA division; is a registered medical technologist with the American Society of Clinical Pathologists; was employed as a serologist at a Utah hospital where she performed thousands of serologic tests; has worked on over five hundred cases involving serologic and DNA tests and has testified in felony cases as to serologic DNA results in district courts throughout Utah; completed a one-month course from the FBI on DNA typing, which covered molecular biology, popu-

lation statistics, and lab methods in both RFLP and PCR DNA analysis; completed two one-week STR analysis, evaluation, and interpretation courses, one through the California Criminalist Institute and the other with the Perkin-Elmer Corporation, in which the setup, use, care of, and data analysis from the ABI CE310 instrument was taught; completed a one-week course from the Northwest Forensic Science Association in the areas of population statistics, advanced DNA analysis and methods, particularly STR analysis; completed a one-week course from Perkin-Elmer on forensic DNA typing and amplification; and received training from the University of California-Berkeley in the PCR methodology.

Moreover, we note that courts in other jurisdictions have held that lab personnel trained in the subject to which they are to testify are qualified to lay a foundation for the admissibility of expert testimony, despite the absence of advanced degrees. See, e.g., *Patterson v. State*, 729 N.E.2d 1035, 1040 (Ind. Ct. App. 2000) (holding that state witness was qualified to provide expert testimony on PCR DNA analysis, based on witness's undergraduate degree in biochemistry, employment in state's forensic serology department and DNA unit, completion of state police course in DNA analysis, additional training from FBI in PCR DNA analysis, and prior experience testifying in court regarding PCR DNA analysis); *State v. Blair*, 70 Ohio App. 3d 774, 592 N.E.2d 854, 863 (Ohio Ct. App. 1990) (holding that State's witness with bachelor of science degree in medical technology was sufficiently qualified to testify as an expert on DNA test results, even though lab employed more qualified experts, where witness had worked for lab as supervisor, and had worked on thirty to forty forensic cases and over 1000 paternity cases involving same or similar tests).

Accordingly, we conclude that the trial court had an adequate factual basis for concluding that Ms. Shortsleeve was a qualified expert in DNA analysis and serology by reason of experience, skill, knowledge, and education. See Utah R. Evid. 702.

#### B. The PCR STR Method of DNA Testing and the Instrumentation Used to Effectuate the Test

We next address Butterfield's argument that the State failed to lay an adequate foundation to show that the scientific principles and techniques underlying PCR STR DNA testing and the instrumentation used to effectuate the testing are inherently reliable as required by *State v. Rimmasch*, 775 P.2d 388 (Utah 1989).

Trial courts have considerable discretion in determining the admissibility of expert testimony, "and such decisions are reviewed under an abuse of discretion standard." *State v. Brown*, 948 P.2d 337, 340 (Utah 1997) (quoting *State v. Larsen*, 865 P.2d 1355, 1361 (Utah 1993)). "The exercise of discretion . . . necessarily reflects the personal judgment of the court and the appellate court can properly find abuse only if . . . no reasonable [person] would take the view adopted by the trial court." *Id.* (quoting *State v. Gerrard*, 584 P.2d 885, 887 (Utah 1978)).

*Rimmasch* sets forth a three-part standard for admitting scientific or technical evidence under Utah Rule of Evidence 702. First, *Rimmasch* requires a threshold showing that the scientific principles and techniques are "inherently reliable." 775 P.2d at 398. The court may take judicial notice of the inherent reliability of the scientific principles and techniques at issue if they have been generally accepted by the "relevant scientific community." *Brown*, 948 P.2d at 340 (citing *Rimmasch*, 775 P.2d at 400). However, if judicial notice is inappropriate, "the court must determine whether the party seeking to have the evidence admitted has sufficiently demonstrated the inherent reliability of the underlying principles and techniques." *State v. Crosby*, 927 P.2d 638, 641 (Utah 1996) (citing *Rimmasch*, 775 P.2d at 400). This foundational showing must explore such questions as the correctness of the scientific principles underlying the testimony, the accuracy and reliability of the techniques utilized in applying the principles to the subject matter before the court and in reaching the conclusion expressed in the opinion, and the qualifications of those actually gathering the data and analyzing it.

. . . In the absence of such a showing by the proponent of the evidence and a determination by the [trial] court as to its threshold reliability, the evidence is inadmissible.

*Rimmasch*, 775 P.2d at 403 (citation omitted).

If the proponent of the scientific evidence can demonstrate inherent reliability--by judicial notice or through a foundational showing--the trial court must then consider *Rimmasch*'s second and third requirements. *Brown*, 948 P.2d at 341; *Crosby*, 927 P.2d at 641. "*Rimmasch*'s second requirement is a 'determination that there is an adequate foundation for the proposed testimony, i.e., that the scientific principles or techniques have been properly applied to the facts of the particular case by qualified persons and that the testimony is founded on that work.'" *Brown*, 948 P.2d at 341 (quoting *Rimmasch*, 775 P.2d at 398 n.7). Finally, *Rimmasch*'s third requirement is a determination that the scientific evidence will be more probative than prejudicial as required by rule 403 of the Utah Rules of Evidence. See *Rimmasch*, 775 P.2d at 398 n.8.

In this case, Butterfield's sole argument in regard to the State's proffered DNA evidence is that the State did not establish the first Rimmasch requirement, i.e., failed to demonstrate that PCR STR DNA testing and the instrumentation used to effectuate the testing are inherently reliable. To paraphrase this court in Rimmasch, consideration of this issue is best broken down into two separate questions: first, whether a court may take judicial notice that the scientific principles and techniques underlying PCR STR DNA analysis and the instrumentation used to effectuate the test are inherently reliable; and second, if not, whether the prosecution laid a sufficient foundation for the admission of such expert testimony. See 775 P.2d at 400. On appeal, we deal with the question of judicial notice first because an appellate court may sustain "a trial court's evidentiary ruling on any available ground, even though it may be one not advanced below." *Id.* (citing *State v. Gray*, 717 P.2d 1313, 1316 (Utah 1986); *State v. Gallegos*, 712 P.2d 207, 209 (Utah 1985); *State v. Bryan*, 709 P.2d 257, 260 (Utah 1985)).

### 1. The PCR STR Technique

As noted above, the reliability of scientific principles and techniques are legitimate subjects of judicial notice if they have been recognized generally by the relevant scientific community. See *Kofford v. Flora*, 744 P.2d 1343, 1348 (Utah 1987) (holding that inherent reliability of HLA paternity testing was subject to judicial notice because it was recognized generally in scientific community). In this case, the State introduced an authoritative scientific study by the National Research Council regarding the reliability of the scientific principles and techniques underlying PCR STR DNA testing. <sup>n4</sup> See National Research Council, *The Evaluation of Forensic DNA Evidence* (1996) [hereinafter 1996 NRC Report]. The 1996 NRC Report states that "one of the most promising of the newer [PCR] techniques involves amplification of loci containing Short Tandem Repeats (STRs)," *id.* at 23, that STR testing "is coming into wide use," *id.* at 71, that "STR loci appear to be particularly appropriate for forensic use," *id.* at 117, and that "STRs can take their place along with VNTRs as forensic tools." *Id.* at 35. Accordingly, the 1996 NRC Report, speaking of PCR-based systems in general, which includes STR testing, stated:

<sup>n4</sup> This court has stated that "published articles and books may . . . be used as evidence supporting" the correctness of the general scientific principles and the accuracy and reliability of the methods utilized. *Phillips ex rel. Utah State Dep't of Soc. Servs. v. Jackson*, 615 P.2d 1228, 1235 n.8 (Utah 1980).

We affirm the statement of the 1992 report that the molecular technology is thoroughly sound and that the results are highly reproducible when appropriate quality-control methods are followed. The uncertainties that we address in this report relate to the effects of possible technical and human errors and the statistical interpretation of population frequencies, not to defects in the methodology itself.

*Id.* at 23 (emphasis added).

The conclusion of the National Research Council that STR testing is particularly appropriate for forensic use is supported by numerous studies published in both scientific and forensic journals, which show widespread acceptance of the STR technique in DNA analysis for human identification, paternity testing, and other basic research. <sup>n5</sup> See, e.g., Lucia Sacchetti et al., *Efficiency of Two Different Nine-Loci Short Tandem Repeat Systems for DNA Typing Purposes*, 45 *Clinical Chemistry* 178, 178, 181 (1999) (finding that "the most widely used methodology for DNA typing is PCR analysis of various short tandem repeat (STR) loci," and asserting that "PCR analysis of highly polymorphic STR loci is the method of choice for human identification, in that it can . . . be used to type old or severely degraded DNA"); D. Miscicka-Sliwka et al., *Population Genetics of the STRs vWA, D3S1358 and FGA in the Pomerania-Kujawy Region of Poland*, 112 *Int'l J. Legal Med.* 391, 391 (1999) (finding STR system to be a valuable tool for forensic identification and paternity testing); Peter Gill et al., *Automated Short Tandem Repeat (STR) Analysis in Forensic Casework--A Strategy for the Future*, 16 *Electrophoresis* 1543, 1543 (1995) ("DNA profiling in forensic sciences in the UK is focused on the analysis of short tandem repeat (STR) loci using PCR. It is the technique of choice for the national strategy to create criminal intelligence databases. Apart from the increased sensitivity inherent with any PCR technique, with STRs there is also the advantage of definitive allelic identification."); R. L. Alford et al., *Rapid and Efficient Resolution of Parentage by Amplification of Short Tandem Repeats*, 55 *Am. J. Human Genetics* 190, 190 (1994) (concluding that STR loci are highly informative polymorphic loci that are gaining popularity for identity testing, and validating method as accurate and highly sensitive). Butterfield introduced no contradictory scientific literature.

n5 Numerous courts in other jurisdictions have held that an appellate court may consider and rely upon legal and scientific commentaries when reviewing the trial court's determinations regarding the admissibility of DNA evidence, even if the commentaries were not originally before the trial court. Indeed, as the California Supreme Court explained in *People v. Brown*, "Because appellate endorsement of a technique ends the need for case-by-case adjudication, this court has sometimes looked beyond the trial record, examining California precedent, cases from other jurisdictions, and the scientific literature itself, to ascertain whether a particular technique is generally accepted." 230 Cal. Rptr. 834, 726 P.2d 516, 523 (Cal. 1985) (emphasis added) (citations omitted), rev'd on other grounds, 479 U.S. 538, 93 L. Ed. 2d 934, 107 S. Ct. 837 (1987); see also *People v. Dalcollo*, 282 Ill. App. 3d 944, 669 N.E.2d 378, 385, 218 Ill. Dec. 435 (Ill. App. Ct.) ("In recognition of the fact that the formulation of the law is a 'quintessentially appellate function,' we will engage in a broad review of the trial court's determination with respect to the general acceptance of forensic DNA analysis. In doing so, we may consider the expert evidence presented in the trial court, judicial opinions from other jurisdictions, and any pertinent legal and scientific commentaries." (quoting *United States v. Porter*, 618 A.2d 629, 635 (D.C. 1992) (citations omitted)); *State v. Harvey*, 151 N.J. 117, 699 A.2d 596, 620 (N.J. 1997) ("When reviewing the admission of scientific evidence, an appellate court should scrutinize the record and independently review the relevant authorities, including judicial opinions and scientific literature. . . . By reviewing post-trial publications, an appellate court can account for the rapid pace of new technology. The continuing review also recognizes that general acceptance may change between the time of trial and the time of appellate review."). We find the reasoning of the above courts to be persuasive and therefore do not confine ourselves to the trial court record in determining whether the particular method of DNA testing employed in this case is generally accepted in the scientific community.

Finally, in regard to the legal community, we note that PCR-based testing, which encompasses STR testing, has been held to be a scientifically correct and reliable technique by a vast majority of courts in other jurisdictions. Indeed, a non-exhaustive list of appellate courts in other jurisdictions finding PCR-based testing to be scientifically valid and reliable includes *United States v. Hicks*, 103 F.3d 837, 845-47 (9th Cir. 1996); *United States v. Beasley*, 102 F.3d 1440, 1446-47 & n.4 (8th Cir. 1996) (listing fifteen state appellate courts admitting DNA evidence derived from the PCR methodology); *People v. Morganti*, 43 Cal. App. 4th 643, 50 Cal. Rptr. 2d 837, 855 (Ct. App. 1996); *People v. Pope*, 284 Ill. App. 3d 695, 672 N.E.2d 1321, 1327, 220 Ill. Dec. 309 (Ill. App. Ct. 1996); *Ingram v. State*, 699 N.E.2d 261, 263 (Ind. 1998); *State v. Hill*, 257 Kan. 774, 895 P.2d 1238, 1247 (Kan. 1995); *State v. Spencer*, 663 So. 2d 271, 275 (La. Ct. App. 1995); *Commonwealth v. Vao Sok*, 425 Mass. 787, 683 N.E.2d 671, 680 (Mass. 1997); *People v. Lee*, 212 Mich. App. 228, 537 N.W.2d 233, 257-58 (Mich. Ct. App. 1995); *State v. Hoff*, 904 S.W.2d 56, 58-59 (Mo. Ct. App. 1995); *State v. Moore*, 268 Mont. 20, 885 P.2d 457, 474-75 (Mont. 1994); *State v. Williams*, 252 N.J. Super. 369, 599 A.2d 960, 966-67 (N.J. Super. Ct. App. Div. 1991); *State v. Burke*, 2000 ND 25, 606 N.W.2d 108, 112-13 (N.D. 2000); *State v. Lyons*, 324 Ore. 256, 924 P.2d 802, 812 (Or. 1996); *State v. Moeller*, 1996 SD 60, 548 N.W.2d 465, 482 (S.D. 1996); *State v. Begley*, 956 S.W.2d 471, 477-78 (Tenn. 1997); *Clarke v. State*, 813 S.W.2d 654, 655 (Tex. App. 1991); *Spencer v. Commonwealth*, 240 Va. 78, 393 S.E.2d 609, 620-21 (Va. 1990); *State v. Russell*, 125 Wn.2d 24, 882 P.2d 747, 768 (Wash. 1994). Moreover, although only three courts have addressed the issue of whether PCR-based analysis of STR loci--STR testing--is scientifically valid, all three courts that have addressed the issue have found STR testing to be a scientifically valid and reliable forensic technique. See *People v. Allen*, 72 Cal. App. 4th 1093, 85 Cal. Rptr. 2d 655, 659-60 (Ct. App. 1999) (finding STR DNA testing generally accepted in scientific community); *Commonwealth v. Rosier*, 425 Mass. 807, 685 N.E.2d 739, 742-43 (Mass. 1997) (finding STR DNA testing a scientifically valid, reliable technique); *State v. Jackson*, 255 Neb. 68, 582 N.W.2d 317, 325 (Neb. 1998) (holding STR testing generally accepted in the scientific community, where State expert witness testified that STR testing has "been around several years now, and there is nothing unique about PCR STR versus any PCR").

In view of the decisional law from other jurisdictions and the overwhelming endorsement by the relevant scientific and forensic literature, we conclude that judicial notice of the inherent reliability of the PCR STR method of DNA testing is appropriate. Because judicial notice is appropriate, we do not address the question of whether the State made an adequate foundational showing under *Rimmasch* of the inherent reliability of the PCR STR DNA methodology.

## 2. The Perkin-Elmer Profiler Plus Amplification Kit and the ABI CE310 Automated Capillary Electrophoresis Machine



Not only does Butterfield challenge the basic PCR STR technique, he also attacks as unreliable under Rimmasch the particular instrumentation used to effectuate the technique--the ABI CE310 automated capillary electrophoresis machine and the ProfilerPlus Amplification Kit, which contains the tagged fluorescent primers that are attached to the STRs and identified by the ABI CE310's laser.

At the pretrial hearing, the State's expert, Ms. Shortsleeve, testified that the forensic community generally accepts the instrumentation used in this case to effectuate PCR STR DNA testing. Specifically, the prosecutor had the following dialogue with Ms. Shortsleeve:

MS. SHORTSLEEVE: I have spoken with the crime lab in Oregon State, in Washington, in Nevada, in Colorado, in New Mexico, in Texas. My other colleagues have spoken to people in the State of --

MR. O'CONNELL: I will object to that. That is hearsay.

MR. NOLAN: She can rely on that.

THE COURT: She can. Go ahead.

MR. NOLAN: Go ahead.

MS. SHORTSLEEVE: They have spoken to people in New York, in Maine, in Florida, in Georgia, in Virginia and in the state of Illinois.

....

MR. NOLAN: In each of those states, the crime labs that you mentioned, are they using the [ABI] CE310?

MS. SHORTSLEEVE: Yes, they are.

MR. NOLAN: And have you talked to them about their results?

MS. SHORTSLEEVE: Yes, I have.

MR. NOLAN: In your opinion, is there a general acceptance of this program in the relevant forensic community?

MS. SHORTSLEEVE: Yes.

Moreover, even defense expert Dr. Christie T. Davis, although stating that she did not know whether the amplification process relating to the ABI CE310 was generally accepted in the forensic community, acknowledged that many labs across the United States use the ABI CE310, including the Forensic Science Association, SERI, Reliagene, the California Department of Justice, and Intermountain Forensic Science, and that all of the above labs had undergone validation studies, proficiency testing, and internal and external audits with regard to the ABI CE310.

Consistent with Ms. Shortsleeve's testimony, the scientific literature presented on appeal appears to be unanimous in its approval of the general principle of identifying STRs by capillary electrophoresis. See, e.g., Eric Buel et al., Capillary Electrophoresis STR Analysis: Comparison to Gel-Based Systems, 43 J. Forensic Sci. 164, 169 (1998) (reporting that identification of STR alleles by capillary electrophoresis yielded same results as those from gel-based technologies); Huong Le et al., Capillary Electrophoresis: New Technology for DNA Diagnosis, 30 Pathology 304, 306 (1998) (finding that "in contrast to slab-gel electrophoresis, which can give a maximum resolution of 1-2 bp for fragments shorter than 250 bp, capillary electrophoresis is capable of delivering the same resolution consistently for fragments up to 600 bp in size"); John A. Luckey et al., High Speed DNA Sequencing by Capillary Electrophoresis, 18 Nucleic Acids Res. 4417, 4417 (1990) (University of Wisconsin Department of Chemistry applauding capillary electrophoresis in DNA analysis using fluorescent primers supplied by Applied Biosystems). Additionally, the forensic community and those quarters of the scientific community that have used the Perkin-Elmer Profiler Plus Amplification Kit and the ABI CE310 uniformly assert the system's reliability. See, e.g., Timothy D. Kupferschmid et al., Maine Caucasian Population DNA Database Using Twelve Short Tandem Repeat Loci, 44 J. Forensic Sci. 392, 392, 394 (1999) (conclud-

ing that allele frequency estimations can be reliably calculated using Profiler Plus Amplification Kit in conjunction with ABI CE310 capillary electrophoresis machine); Cecelia A. Crouse et al., Analysis and Interpretation of Short Tandem Repeat Microvariants and Three-Banded Allele Patterns Using Multiple Allele Detection Systems, 44 J. Forensic Sci. 87, 87-88 (1999) (Palm Beach County Sheriff's Office Crime Laboratory, Alabama Department of Forensic Sciences, Promega Corporation, and Broward County Sheriff's Office Crime Laboratory analyzing rare anomalies in STR system, and finding that three well-established DNA detection systems, including the ABI CE310 system, gave concordant results in detecting unusual band patterns); Toshimichi Yamamoto et al., Allele Distribution at Nine STR Loci--D3S1358, vWA, FGA, TH01, TPOX, CSF1PO, D5S818, D13S317 and D7S820--in the Japanese Population by Multiplex PCR and Capillary Electrophoresis, 44 J. Forensic Sci. 167, 167 (1999) (Department of Legal Medicine, Nagoya University School of Medicine, analyzing personal identification data generated from multiplex PCR with fluorescent-labeled primers following capillary electrophoresis with ABI CE310, Gene Scan, and Genotyper programs, and finding that "this system makes it possible to determine the size of STR alleles so accurately that the error of sizing is within 0.5 base"); Jeanette M. Wallin et al., TWGDAM Validation of the AmpFISTR Blue PCR Amplification Kit for Forensic Casework Analysis, 43 J. Forensic Sci. 854, 868 (1998) (PE Applied Biosystems and California Department of Justice DNA Laboratory using ABI CE310 in validation studies and finding absence of artifact peaks and characterizing of stutter peaks and peak height ratios); Marcia LaFountain et al., Validation of Capillary Electrophoresis for Analysis of the X-Y Homologous Amelogenin Gene, 43 J. Forensic Sci. 1188, 1188, 1193 (1998) (Vermont Forensic Laboratory finding ABI CE310, used in conjunction with fluorescently tagged Amelogenin primers, "a convenient and reliable methodology for gender determination of forensic samples"). Butterfield has presented this court with no contradictory scientific literature.

n6 See footnote 5 supra.

Finally, in addition to the above, Ms. Shortsleeve testified that control tests are run to assure that the Perkin-Elmer instrument performs properly; that the Utah State Crime Lab performed validation studies over an eight-month period, beginning in January 1998, and ending in September 1998, on the Perkin-Elmer instrument, and that case work was not performed until the validation was complete; that the Utah State Crime Lab's studies were consistent with validation studies and results published by Perkin-Elmer; that Dr. Cecelia Von Beroilgin, a forensic scientist with the Oregon State Patrol Crime Lab, reviewed the Utah State Crime Lab's studies as part of its annual audit and found no problems; and finally, that the Technical Working Group on DNA Analysis Method ("TWGDAM"), a group of forensic DNA analysts from government and private laboratories who are considered authoritative in the field, ran validation studies n7 comparing the results of the ABI CE310 unit with the FMBioslab electrophoresis unit and the ABI 377 slab gel electrophoresis unit, and concluded that the three test instruments yielded the same results on the same samples.

n7 The TWGDAM validation had not been published at the time of the evidentiary hearing in this case. However, Ms. Shortsleeve testified that a TWGDAM auditor with whom Ms. Shortsleeve kept in close contact reported the results to her. Butterfield does not argue on appeal that this evidence was improper.

Based on the overwhelming endorsement by the relevant scientific literature, the numerous validation studies performed, and the testimony of the State's expert, Ms. Shortsleeve, that the instrumentation and materials used in this case are generally accepted in the forensic community, n8 we conclude that, like the basic PCR STR technique itself, judicial notice of the inherent reliability of the instrumentation used to effectuate the PCR STR DNA testing in this case is also appropriate. Therefore, we affirm the trial court's pretrial ruling allowing the State to introduce DNA evidence at trial, which identified the blood on Butterfield's undershirt as that of V.R.

n8 Butterfield argues that because Ms. Shortsleeve is a forensic scientist, she could testify only to the acceptance of PCR STR testing in the forensic community, which Butterfield argues is too limited to establish general acceptance. However, in addition to Ms. Shortsleeve's testimony, the voluminous literature presented to this court by the State--recognizing the reliability of not only the analytical principles, but also the reliability of

the specific materials and instruments employed--issues from both forensic and non-forensic labs. Accordingly, because the State has bolstered Ms. Shortsleeve's testimony with additional evidence from non-forensic fields, Butterfield's argument is without merit.

## II. EXPERT EYEWITNESS IDENTIFICATION TESTIMONY

Butterfield's second argument on appeal is that the trial court erred in excluding his proposed expert testimony on the inherent deficiencies of eyewitness identification. Specifically, Butterfield argues that the cautionary jury instruction given by the trial court in this case, listing criteria for the jury to consider in evaluating the eyewitness identification testimony presented, was insufficient because of the limitations inherent in eyewitness identification.

As Butterfield correctly notes, this court has previously recognized the vagaries of eyewitness identification. Indeed, in *State v. Long*, this court stated:

Research has convincingly demonstrated the weaknesses inherent in eyewitness identification[; however,] jurors are, for the most part, unaware of these problems. People simply do not accurately understand the deleterious effects that certain variables can have on the accuracy of the memory processes of an honest eyewitness. Moreover, the common knowledge that people do possess often runs contrary to documented research findings.

721 P.2d 483, 490 (Utah 1986) (citations omitted). Because of the inherent deficiencies in eyewitness identification recognized in *Long*, trial courts are required to give a cautionary jury instruction when eyewitness identification "is a central issue in a case and such an instruction is requested by the defense." *Id.* at 492. However, as the Utah Court of Appeals correctly noted in *State v. Kinsey*, this court "has not extended the cautionary instruction requirement to include additional expert testimony concerning eyewitness identification." 797 P.2d 424, 427 (Utah Ct. App.), cert. denied, 800 P.2d 1105 (Utah 1990).

Whether expert testimony on the inherent deficiencies of eyewitness identification should be allowed is within the sound discretion of the trial court. *State v. Malmrose*, 649 P.2d 56, 61 (Utah 1982); 31A Am. Jur. 2d Expert and Opinion Evidence § 370 (1989) ("Expert testimony concerning the reliability of eyewitness identification is not automatic but conditional."). Although a defendant has the right to have witnesses, including experts, testify on his or her behalf, the calling of expert witnesses to testify as to matters which would apply to any crime or any trial does not in the true sense offer testimony of a witness who has knowledge of the facts of the case. Rather, it would be in the nature of a lecture to the jury as to how they should judge the evidence.

*State v. Griffin*, 626 P.2d 478, 481 (Utah 1981). Accordingly, a trial court's determination that expert testimony would amount to a lecture to the jury as to how they should judge the evidence, and its subsequent refusal to admit such testimony into evidence "is not an abuse of discretion, particularly where there has been no showing that the excluded evidence would probably have had a substantial influence in bringing about a different verdict." *Malmrose*, 649 P.2d at 61; accord *United States v. Brown*, 540 F.2d 1048, 1054 (10th Cir. 1976) (affirming trial court's exclusion of expert testimony regarding inherent deficiencies of eyewitness identification); *State v. Reed*, 226 Kan. 519, 601 P.2d 1125, 1128 (Kan. 1979) (same); *State v. Helterbride*, 301 N.W.2d 545, 547 (Minn. 1980) (same); *State v. Porraro*, 121 R.I. 882, 404 A.2d 465, 471 (R.I. 1979) (same).

In this case, the trial court found that the proposed testimony of Butterfield's expert witness, Dr. David Dodd, "did not deal with the specific facts from this case but rather would constitute a lecture to the jury about how it should judge the evidence." Moreover, the trial court concluded that "such evidence could cause confusion of the issues and could cause undue delay or waste of time during the trial." The trial court's finding is supported by ample evidence. Indeed, it is undisputed that Dr. Dodd was not familiar with Butterfield, the victims, or the facts of this case. As Butterfield himself stated, Dr. Dodd "would not have offered an opinion concerning whether any witness' identification was accurate. Instead, he would outline for the jury the general principles of psychological knowledge which illuminate the problems of eyewitness performance." (Emphasis added.) Moreover, Butterfield has made no showing that the proffered testimony would have had a substantial influence in bringing about a different verdict, especially considering the fact that the jurors in this case were presented with a cautionary instruction that met the requirements of *Long*, adequately and thoroughly explaining how to evaluate eyewitness identifications presented at trial. n9 Therefore, we conclude that the trial court did not abuse its discretion in excluding Butterfield's proposed expert testimony regarding eyewitness identification.

n9 Butterfield did not argue before the trial court, nor does he argue on appeal, that the jury instruction presented in this case did not meet the requirements of Long.

### III. MOTION FOR MISTRIAL

Butterfield's final argument on appeal relates to the trial court's failure to grant his motion for a mistrial following an improper remark made in the presence of the jury. Specifically, during direct examination by the prosecutor, Detective Hogan stated that he obtained the photograph of Butterfield used in the police photo array from the "Salt Lake County Jail." n10 Butterfield argues that the obvious implication of Detective Hogan's statement was that Butterfield had a prior criminal conviction--evidence excluded by the court prior to trial. In support of this conclusion, Butterfield notes that shortly after the statement was made, juror No. 7, who was dismissed for overhearing an unrelated conversation about the case, stated that Detective Hogan's remark suggested the photograph was related to a previous conviction. Accordingly, Butterfield contends that Detective Hogan's statement was unfairly prejudicial and that the trial court therefore abused its discretion in refusing to grant Butterfield's motion for a mistrial.

n10 Butterfield also argues that he was prejudiced by a statement made by another State witness--an eight-year-old girl--who inadvertently stated during direct examination that Butterfield had previously tried to get her "drunk." However, instead of providing this court with meaningful legal analysis and citation to pertinent authority, Butterfield's brief merely contains one sentence reciting the above witness's statement and concluding that it was improper. As we noted earlier, this court "is not simply a depository in which the appealing party may dump the burden of argument and research." *State v. Bishop*, 753 P.2d 439, 450 (Utah 1988) (quoting *Williamson v. Opsahl*, 92 Ill. App. 3d 1087, 416 N.E.2d 783, 784, 48 Ill. Dec. 510 (Ill. App. Ct. 1981)). Therefore, because Butterfield's brief wholly fails to adequately set forth an argument as required by rule 24(a)(9) of the Utah Rules of Appellate Procedure with regard to this issue, we do not address it. See *MacKay v. Hardy*, 973 P.2d 941, 948 n.9 (Utah 1998).

"A trial court's denial of a motion for mistrial will not be reversed absent an abuse of discretion." *State v. Wach*, 2001 UT 35, P45, 24 P.3d 948. In exercising its discretion, and "in view of the practical necessity of avoiding mistrials and getting litigation finished, the trial court should not grant a mistrial except where the circumstances are such as to reasonably indicate . . . that a fair trial cannot be had" and that a mistrial is necessary to avoid injustice. *Burton v. Zion's Coop. Mercantile Inst.*, 122 Utah 360, 364-65, 249 P.2d 514, 517 (1952). However, after the trial court has exercised its discretion and made its judgment, "the prerogative of a reviewing court is much more limited." *Wach*, 2001 UT 35 at P45. Unless the record clearly shows that the trial court's decision "is plainly wrong in that the incident so likely influenced the jury that the defendant cannot be said to have had a fair trial, we will not find that the court's decision was an abuse of discretion." *State v. Robertson*, 932 P.2d 1219, 1231 (Utah 1997). We give just deference to the trial court ruling "because of the advantaged position of the trial judge to determine the impact of events occurring in the courtroom on the total proceedings." *Id.*

In this case, Butterfield has failed to show the requisite abuse of discretion. Consistent with our review of the record, the trial court determined that Detective Hogan's improper remark about where he obtained Butterfield's photograph was a "vague," "fleeting" remark that was not elicited by the prosecutor. Moreover, although juror No. 7, who was dismissed on unrelated grounds, did indicate Detective Hogan's remark suggested that Butterfield had a prior criminal record, this court has previously stated that while there is little doubt that some prejudice might result from the jury's being informed, however briefly, that a defendant had formerly been in jail, the prejudice must be such that it is unfair. . . Thus, defendant must make some showing that the verdict was substantially influenced by the challenged testimony.

*State v. Velarde*, 734 P.2d 440, 448 (Utah 1986) (emphasis added). Like the defendant in *Velarde*, Butterfield has pointed to no evidence anywhere in the record to suggest that the jury relied on Detective Hogan's statement for its verdict. Moreover, given the totality of the evidence against Butterfield--the DNA evidence and the eyewitness identifications--Butterfield has failed to show that there is a substantial likelihood that the jury would have found him not guilty

had the improper statement not been made. Accordingly, we conclude that the trial court did not abuse its discretion in denying Butterfield's motion for a mistrial. Accord *State v. Harris*, 258 La. 720, 247 So. 2d 847, 849 (La. 1971) (holding that mistrial not warranted following police officer's reference to obtaining defendant's photograph from Bureau of Investigation), overruled in part on other grounds by *State v. Blackwell*, 298 So. 2d 798, 801 (La. 1973).

### **CONCLUSION**

We conclude that the trial court did not abuse its discretion in (1) admitting the State's DNA evidence; (2) excluding Butterfield's proposed expert testimony on the inherent deficiencies of eyewitness identification; or (3) refusing to grant a mistrial following an improper remark made in the presence of the jury. Accordingly, we affirm the jury's verdict and the trial court's subsequent sentence.

Chief Justice Howe, Justice Durham, Justice Durrant, and Justice Wilkins concur in Associate Chief Justice Russon's opinion.