

Case No. 20151017-CA

IN THE
UTAH COURT OF APPEALS

STATE OF UTAH,
Plaintiff/Appellee,

v.

JOHNNY BRICKMAN WALL,
Defendant/Appellant.

Brief of Appellee

Appeal from conviction for murder, a first degree felony, in the
Third Judicial District, Salt Lake County, the Honorable James
T. Blanch presiding

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- Utah Code Ann. § 76-5-203(2) (West 2018) (homicide)
- Utah R. Crim. P. 23 (arrest of judgment)
- Utah R. Evid. 702 (expert testimony)

Addendum B: Order Denying Motion for Arrest of Judgment (Evidence Not Constitute Offense)

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INTRODUCTION

Uta was not alone the night she died. Someone entered her bedroom, drugged her, cut her with a knife, and held her under bathwater until she drowned. That person then cleaned his bloody footprints from the bedroom and bathroom floor and staged the scene to look like a suicide by scattering antihistamine pills around the bedroom and throwing Uta's daughter's scrapbook into the tub with her.

The State charged—and the jury convicted—Uta's ex-husband, Defendant Johnny Wall, of being that person. Defendant now raises two claims on appeal. First, he argues that the evidence was insufficient to support his murder conviction. He is mistaken. Defendant left clues behind

that, viewed together, indisputably show that Uta was murdered and point to him as Uta's killer.

Second, Defendant argues that the trial court erroneously admitted DNA evidence, and that his trial counsel was ineffective when he did not object to the State's presentation and summation of the DNA evidence. Again, he is mistaken. The trial court did not abuse its discretion in admitting the DNA evidence because Defendant's objections went to the weight, not the admissibility of the evidence.

And the State's presentation and summation of the DNA evidence was not so clearly out of bounds that all competent counsel would have objected. To the contrary, the testimony did not exceed the boundaries drawn by the trial court and the prosecutor's argument merely drew a proper inference from the evidence.

But in any event, Defendant can show no prejudice where the DNA evidence was but one piece in the evidentiary puzzle. Defendant would have been convicted without it.

STATEMENT OF THE ISSUES

1a. After the jury found him guilty, Defendant moved to arrest judgment on the grounds that the evidence was insufficient. The trial court denied Defendant's motion. Should this Court review Defendant's

sufficiency-of-the-evidence challenge when he does not address the reasons the trial court denied it below?

Standard of Review. None applies.

1b. Regardless, did the trial court abuse its discretion when it denied Defendant's motion to arrest judgment, concluding that "ample evidence was submitted to the jury to support its verdict of guilty"?

Standard of Review. Appellate courts apply the same standard used in deciding sufficiency-of-the-evidence claims. *State v. Bolson*, 2007 UT App 268, ¶10, 167 P.3d 539. "In considering an insufficiency-of-the-evidence claim," courts "review the evidence and all reasonable inferences drawn therefrom in a light most favorable to the verdict" and "will reverse 'only when the evidence, so viewed, is sufficiently inconclusive or inherently improbable that reasonable minds must have entertained a reasonable doubt that the defendant committed the crime of which he or she was convicted.'" *State v. Jones*, 2015 UT 19, ¶15, 345 P.3d 1195 (citation omitted).

2a. Before trial, Defendant moved to exclude expert testimony about the DNA testing of Uta's white pillowcase, which concluded that Defendant was a possible contributor to the sample. Defendant argued that the forensic analyst should have disregarded some data, which he claimed if ignored, would have excluded Defendant as being a source of the DNA. The State's

expert, however, disagreed. After a full-day evidentiary hearing and extensive briefing and argument, the trial court ruled that Defendant's objections went to the evidence's weight, not its admissibility. The trial court ruled that both parties could present their interpretations of the DNA evidence to the jury through expert witnesses, cross-examination, and closing argument.

Did the trial court abuse its discretion under rule 702(b), Utah Rules of Evidence, by allowing the State's DNA expert to testify?

Standard of Review. Appellate courts review a trial court's decision to admit expert testimony for an abuse of discretion and will find error "only if no reasonable person would take the view the trial court adopted." *State v. Maestas*, 2012 UT 46, ¶122, 299 P.3d 892.

2b. Has Defendant proved that all competent counsel would have objected to how the State presented and argued the DNA testimony at trial?

Standard of Review. An ineffective assistance claim raised for the first time on appeal is a question of law. *State v. Ott*, 2010 UT 1, ¶16, 247 P.3d 344.

STATEMENT OF THE CASE

A. Summary of relevant facts.

Someone murdered Uta Von Schwedler in her home in the early morning hours of September 27, 2011. After a lengthy investigation, police

concluded that Uta's ex-husband, Defendant Johnny Wall, killed her and staged the scene to look like she killed herself. After a nearly month-long trial, the jury convicted Defendant of first-degree murder.

The murder

Uta's boyfriend, Nils Abramson, found Uta submerged in her bathtub of her home at about 7:45 p.m. on September 27, 2011. R.13288. The cold water was running and Uta's youngest daughter's scrapbook was floating at her feet. R.13288-13289,13294-13296. A newspaper and a Triple A book were in the water. R.13298-13299; State's Exs.45,88,105-107. Uta was wearing only the shorts she normally wore to bed; her bloodied tank top was hanging on the edge of the tub. R.13299; State's Exs.89,160,166,167. Uta had three injuries to her left wrist—a stab wound on the inside of her wrist, a laceration near the stab wound, and another jagged laceration that wrapped around her wrist and left a flap of skin hanging. R.13786,13794,13855-13860; State's Ex.149. Uta's left calf also bore a deep cut. R.13786,6769-6970. Uta's lower lip was bruised and she had an abrasion on her right cheek. R.13786,13790,13792, 13936-13937; State's Ex.149,159.

A kitchen knife lay under Uta's body in the tub. R.14151-14152; State's Ex.102, 105-107. There was dry blood smeared on the bathroom sink basin as well as a bloody palmprint on the tub's tile below the windowsill. R.6757-

6758,6772,6891-6892,6985,14149-14150; State's Ex.85-86,103-104. A blood-stained purple towel lay on the floor. R.13529,14150. There were drops of dry blood on the bathroom floor. R.6984,7500,14149; State's Ex.43 83-84. Nils grabbed Uta's arm to pull her out of the tub, but she was "stiff." R.13289. Uta was already dead.

Across the hallway, in Uta's bedroom, there were signs of a struggle. It was in disarray. R.6879-R6885,6935-6936. A lamp was toppled over on the bed. R.1817,1818,6935,6987,8808,8866; State's Ex.43. A vase was knocked from the nightstand and onto the floor. R.6935,8866; State's Ex.44. Books from the nightstand were also knocked onto the floor. *Id.* A striped rug near Uta's bed was kinked and out of position. R.6935. Red antihistamine pills were strewn on the floor and into the closet. R.6808,6987-6988. Uta's comforter was balled up at the foot of the bed, covered with several dry bloodstains. R.6880-6881. The fitted bedsheet had dry bloodstains as well, one a large pool. R.6881-6883; State's Ex.182-184. Uta's white pillowcase had a small bloodstain on it. R.9092. A green rug at the bottom of her bed had a bloody partial shoeprint, made while the blood was "very fresh." R.13529,13529,13563, State's Ex.91, 94,185. And in the kitchen, there were three dry partial bloody shoeprints. R.8786,13532,13631,13638,14146-14147; State's Ex.45,75,76,79,80. The shoe pattern was the same as the print in her bedroom. R.13531-13532.

An autopsy later revealed that Uta had drowned. R.13833,7313-7314. She had a fatal or near-fatal dose of Xanax in her system. R.13482,13843. But Uta never had a prescription for Xanax. R.1879,7023,7544,7547,7584,7594, 7596,7610, 8002-8003,8818. And no pill bottle for the drug was ever found. R.13669.

"She was full of life"

Friends, family, coworkers, and acquaintances uniformly described Uta as "[up]beat," "energetic," "friendly," "cheerful," "very happy," and "full of life." R.6609,6633,7006,7061,8019,8105,8458,13707. At work at the Huntsman Cancer Center, she was "a lab mother" who brought in homemade pies and garden vegetables from home to share. R.2827,8105,13708. She enjoyed swimming, running, hiking, skiing, and camping, and went with her many friends to events like lectures, concerts, and the theater. R.6610-6611,7069-7070,7625,8078,8098. But "Uta's greatest pleasure in life was the love for her four children": Pelle, age 17, Malkie, 16, L.W., 12, and I.W., 11. R.14255;8086,13721.

Uta had just one unhappiness: her ex-husband. He was the only person with whom she did not get along. R.7816-7817,8160,13315,14472.

Marriage and divorce

Uta and Defendant met while they were both studying for their Ph.Ds. R.7808-7809,7831,9176. They married in 1990. R.7809. After Defendant also obtained a medical degree, the two moved to Utah in 1994 for Defendant's residency. R.7810,7836,14892-14893. But by 2005, the marriage had failed and Uta moved out. R.8080. In 2006, Uta and Defendant divorced. R.8082.

After the divorce, Defendant was "very, very sad." R.9179,14558-14559. But his sadness turned to anger, and then hatred. *Id.* Defendant believed Uta had "ruined his life" and he blamed her for his problems. R.7817. And even though Defendant remarried, and then divorced again, he was still "fixated" on "all the bad things" Uta had done. R.7823. He told his children and friends that it was Uta's fault that his second wife, Kate, divorced him. R.7673,7847-7848,14322. And he "regularly" told the children that Uta was a bad mother, and that it was her fault they were unable to have things they wanted or do the activities they wanted to do. R.9180-9182,13251,14324,14380-14385,14559; State's Ex.321:5,7.

Defendant did not want Uta in the children's lives. In fact, when Defendant and Uta divorced, he told a friend that he would "make sure that Uta didn't get the children" or be able to see them. R.14771-14772,14774,14779. He tried; he obtained primary physical custody of the

children in the divorce. R.9178,14301,14373-14374,14411,14558. But Uta still had the children every Thursday evening and every other Thursday through Monday. R.9189-9190,13250,14463.

Uta remained very involved in her children's lives, picking them up from school and soccer practices, and attending their soccer games and music performances. R.13270. She hung their pictures and artwork on her walls. R.13366. And she spent "many, many hours" creating scrapbooks of them. R.9195-9197,13296,14470. But Uta wanted to spend more time with her children. R.13261,13709. In 2008, Uta hired an attorney to modify the divorce decree for more parenting time. R.14306. The litigation, however, stalled after court-ordered mediation. R.14297-14306. Even though they reached an agreement, Defendant refused to sign the order. R.14297. Defendant later agreed to resolve their dispute over parenting time with a "parent coordinator." R.14313. But he canceled appointments and refused to continue after six weeks. R.321:9.

By 2011, the conflict between Uta and Defendant had "ratchet[ed] up." R.7688,13661. Defendant refused to speak with Uta about a parenting schedule and he ignored all of Uta's emails or texts. R.9138,14348. He complained about her to the children "a bunch." R.14469. And when the children were with him, Defendant refused to allow them to communicate

with Uta. R.1885-1886,1888,7693,8243,8250-8251,8255,9186,13261,14319; State's Ex.321:8,33-34. If they texted or talked to Uta, they would get in trouble or Defendant would take their phones away. R.1885,1888,8243,8255, 9186,14469,14555; State's Ex.321:33-34-37. Once, Uta came into Defendant's yard—instead of staying outside the gate on the sidewalk—and Defendant “physically removed her” from his yard. R.14472,14562.

Uta again filed to review custody in 2011. R.7657,7666-7669; State's Ex.321:3-5. Six days before Nils found Uta dead, Uta moved to appoint a custody evaluator. R.7709; State's Ex.351. That same day, Uta's attorney informed Defendant's counsel that Uta would file a motion for contempt if Defendant continued to refuse to negotiate a parenting schedule or discuss Uta's plans to take the two youngest children, L.W. and I.W., to San Diego that coming weekend. R.14356-14357; State's Ex.321:66.

Despite Uta's conflict with Defendant, Uta was the happiest she had ever been. R.1886,1888,7063,6979,8092,8251,8253-8254,8468,9199. She was “excited” about her prospects for gaining custody of the children. R.9168. She and Nils were very much in love. R.6632,9192,14474. She was looking forward to taking L.W. and I.W. to San Diego. R.2835,6790,8254,8797,13433,13718-13719; State's Exs.359-360. And she had just made a “big discovery” at work that could lead to new therapies for childhood leukemia. R.1823,6609,6978.

The day before she died, Uta met with her supervisors. They were thrilled, calling her work a “breakthrough” and “one of the biggest discoveries” ever for the lab. R.2810,2829-2830,2832-2841,2834.

Defendant, however, was not as happy. By this time, his “life centered around ... his hate for Uta.” R.7819. He had a “vengefulness” towards her and asked friends, “Would it be bad if Uta wasn’t here anymore?” R.7820, 7838,7859,7870. His coworkers knew that he “despised her” and he said only “bad” things about her. R.1884,14690. He once “slammed down” some files he was holding and exclaimed, “Wow, that bitch is a cunt.” R.14655-14657. He even asked one coworker if she knew a “hit man” and told her to run over Uta’s car if she saw it. R.7870.

Defendant wrote Uta an email, telling her, “I can guarantee that I am unwilling to continue with this level of conflict and will take all means necessary to stop it.” State’s Ex.321:22. Later, Defendant told an acquaintance that he was “getting his kids back.” R.14613,14623. Four days later, Uta was dead.

Uta was “upbeat” and “happy” before she died

The weekend before she died, Uta and the children camped with friends. R.9198,13251-13252,14475. Nils joined them for a hike on Sunday. R.13252. Uta was “upbeat” and “happy” over the weekend. R.9199,13269,

14475. On Monday at work, Uta was also “in an upbeat, happy mood.” R.13624. Monday evening, Uta attended L.W.’s soccer game, and friends noticed she “was in a great mood.” R.1886,1888,13432-13433. Afterwards, Uta did her regular “deep cleaning” of the house and left the mop outside to dry. R.13257,13260,13340; State’s Ex.14.

Defendant picked up the children at 8:00 p.m. Monday evening. R.9202,14479-14480,14527. Defendant pulled into the driveway and honked the horn, as he always did. R.14480. He never went inside Uta’s house. R.1885, 1888,14460-14461,14562.

Uta came outside to talk with Defendant about her plans to take L.W. and I.W. to San Diego over the coming weekend. R.1886,9203-9205,13261,13272,14480-14482,14527. But Defendant did not respond. He refused to look at Uta, rolled up the window, and drove away. R.1886,9205,14481,14527-14528,14563. This behavior was “typical.” R.9205,14481,14527-14528.

Between 9:00 and 10:00 pm that night, Uta’s next-door neighbor saw Uta sitting at her dining room table talking on the phone. R.13604,13614. Uta was shaking her head and was “animated,” but this was “fairly typical” and Uta did not seem upset. *Id.* Uta also talked to a friend at 10:45 p.m. that night about attending a university lecture the next day. R.13719,13721. Uta’s friend

thought Uta seemed “normal.” R.13719-13720.

This was the last time anyone heard from Uta.

Defendant was not home the morning Uta died

On the day Uta was found dead, Malkie, the couple’s second child, woke up at Defendant’s house around 6:00 a.m. to get ready for school. R.14483. Defendant was normally home, but although she looked “[a]ll over the house,” Defendant and his car were gone. R.14484-14485,14536. Malkie called Defendant twice on his cell phone but he did not answer. R.8176,8226,14486-14487.

Defendant usually drove Malkie to the TRAX station, which she took to school. R.14485-14486. But with Defendant still not home at 6:45 a.m., Malkie left to walk to the station. *Id.* Defendant still had not returned home when Pelle, the couple’s oldest child, left to walk to his school at 7:30 a.m. R.9209.

Defendant was spotted at 7:05 a.m. that morning, however. As Malkie’s schoolmate and her mother were driving to school, they saw Defendant driving the opposite direction on Foothill Boulevard. R.14575-14578. They both thought this odd because Defendant was alone and he was not driving Malkie to the TRAX station like he usually did. R.14577. Defendant also was not home, helping his youngest two children get ready for school. *Id.*

Defendant arrived late to work that morning. R.8346. He had patients scheduled and waiting, so his medical assistant had to “disburse[] them to other doctors or reschedule[]” their appointments. R.1883,7867,7969,14666-14667. Defendant was late because he had taken his car to be detailed at the car wash that morning. R.14593-14594. He asked the attendant to focus on the cargo area of the trunk and a spot on the driver’s side backseat. R.14595-14597,14602-14603. The attendant did not see anything spilled or stained on the front seats. R.14603.

When Defendant arrived at work, he was “disheveled and anxious” and he had not showered or shaved. R.1883,7969,8346,8375. He was wearing the same clothes as the day before. R.1883,7969,8346. His left eye was “severely red” and bloody, caused by a conjunctival tear – most commonly caused by fingernail scratches. R.1883,7945,7948,7969,14637-14639, 14641,14644,15158; State’s Exs.191-192,355. And Defendant was wearing a different pair of glasses than the ones he normally wore. R.9132,9210-9211. His normal pair’s left hinge was broken. *Id.*

Defendant also had scratches above and below his eye on his left cheek that looked like fingernail scratches. R.1883,7948-7949,7969,15126-15127. And he had scratches on his forearms. R.14662-14663,15127,15161. When

Defendant saw that his medical assistant noticed them, he rolled his sleeves down to cover them. R.14663-14664.

But within a couple of weeks of Uta's death, Defendant "looked really good," "like a weight had been lifted off his shoulders." R.14670. He told his son Pelle that Uta committed suicide. R.9220. He told his son L.W., "maybe it's better that she's dead." R.1889,8256.

The investigation

Uta's next-door neighbor told investigators that she heard a sound after 3:00 a.m. the morning of September 27, 2011. R.8010-8015. She thought she heard someone calling out, but she could not "make out what they were saying." R.8026,8029-8030.

No one had broken into Uta's house. R.6648,8787. When Nils arrived, the door was unlocked even though Uta locked the doors at night. R.6649,9225. Just days after Uta's death, Pelle discovered that the spare key Uta left outside for the children was gone. R.8824-8825. It was never found. *Id.*

Police compared the bloody shoeprints in Uta's kitchen to the shoes of the first responders, Nils, and Uta's ex-boyfriend, Jack Skalicky. R.14705-14711,14714-14715. None matched. R.14716,14721. They also found no shoes in Uta's bathroom or kitchen. R.8893-8894. The shoes police did find

elsewhere in the house did not have blood on them. *Id.* In fact, Uta did not allow shoes to be worn in the house. R.8095,13285.

Forensic testing revealed that there were also bloody prints – similar to the prints in the kitchen – on Uta’s bedroom and bathroom floors, and one bloody spot on Uta’s wall above her headboard. R.14727-14736; State’s Exs.142-143. None of these prints, however, were visible to Nils and the first responders because they had been cleaned up before anyone arrived. *Id.* When Nils arrived, the blinds were down in Uta’s bedroom although she had “never” put them down before. R.8020-8021,8895,13303. Putting the blinds down would have allowed Uta’s killer to turn on the light and clean up the bloody prints without being seen. But the kitchen – where three bloody shoeprints were not cleaned up – had no blinds. R.8895.

A crime scene reconstructionist concluded that Uta had been murdered and that her killer staged the scene to look like she had killed herself. R.13574. He explained that the blood patterns on Uta’s comforter and sheet showed that a “violent struggle” occurred as Uta struggled “under a restraint.” R.13518,13522-13524,13518. He also pointed out a swipe – possibly made by a glove – through a bloody handprint on the comforter. R.13515-13516,13559. He also explained that Uta’s tank top front, but not the back, had a “saturation stain,” which he believed showed that Uta’s bleeding wrist had

been held tight to her chest while it was bleeding, as if it had been pinned to her. R.13555-13556. He did not believe that Uta had taken off her tank top because it had no bloody handprints or blood around the hem or straps. R.13510,13558.

The crime scene reconstructionist further determined that the bloody palmprint under the bathtub's windowsill and the swipe on the sink basin were from Uta being "push[ed]" as she "struggle[d]." R.13534-13535,13539,13573-13575. He further concluded that the blood patterns at the scene were inconsistent with Uta being intoxicated and stumbling about. He explained that there were no blood swipes on the walls or light switches, dripping blood patterns where Uta walked, or blood pools where she fell, as ones sees in intoxication cases. R.8894,13540. Indeed, there was no blood on any light switches or the bathroom faucets at all. R.6897,6936,7512,8802,13293,14161; State's Exs. 111-112. And when Nils arrived, only the bathroom light was on. R.13284.

The crime scene reconstructionist finally explained that blood begins to dry instantly and dries completely in three to six minutes. R.13498,13523. Once dry, blood does not return to its original form if rewetted. R.13531-13533. So if someone steps into dried blood with wet shoes, the blood will not make a new bloody shoeprint, but instead "flake" off. *Id.*

Uta's autopsy revealed that besides the injuries to Uta's face, leg, and wrist, Uta also had two internal hemorrhages in her neck, which were consistent with strangulation or pressure being applied to her neck. R.13803-13804; State's Exs.150-151. The medical examiner's investigator further noted "petechia" in Uta's right eye – small hemorrhages in the eye that also indicate strangulation. R.13900-13902.

The autopsy showed that Uta did not have remnants of Xanax pills in her stomach, which is usually found in overdoses. R.13811,7196,7302-7303. Rather, Uta had high levels of Xanax in her blood and liver. R.7261,13950-13951. The medical examiner believed this could possibly show that Uta had been injected with Xanax or forced to swallow a "slurry." R.13812,13853. If injected, the injection site was not visible, which is not unusual, or it could have been covered up by the stab wound to her wrist. R.9993,13812,13845-13846,13851,13893-13894. Xanax is a sedative used for anxiety and nervous disorders and because it is fast acting, with a high dose, the onset of symptoms—which include sleepiness and losing consciousness—would have been within minutes. R.1876,13807,13840,13854-13855,13892-13896,13919.

The medical examiner concluded that the injuries to Uta's wrist and leg were not self-inflicted, but were "defensive." R.13792,13798-13799, 13801-

13802,13896-13899. And although he believed that the manner of death was “more consistent” with homicide, because of the presence of Xanax, he decided that he was unable “to form an opinion within a reasonable degree of medical certainty” and selected Uta’s manner of death as undetermined. R.13819-13820,13833-13836.

Two forensic pathologists reviewed the autopsy findings. They both concluded that Uta’s manner of death was homicide. R.10029-10030,13962. They agreed that Uta’s wrist and leg wounds were not self-inflicted, but were defensive wounds. R.9993-9994,13938,13941-13943,13969-13971. And because the levels of Xanax in Uta’s stomach were very low while the levels in her blood were high, they believed that Uta did not swallow Xanax pills but was injected or given a slurry. R.10003-10004,13940-13941,13951,13957,13974.

Investigators found that Uta was never prescribed Xanax. R.1879,8002-8003,14193,14196,14233,14243,14259. And no one saw her take Xanax, heard her say that she had taken it, or saw a prescription bottle. R.1882,8005,8092-8093,9201-9202,13314,13656. Uta never noted Xanax on her “medicine calendar,” where she dutifully documented medications she took. R.13311-13312,13375,13663; State’s Ex.334-335. In it, she noted her medication for asthma, occasional anti-inflammatory medicine for elbow and back pain, and

over-the-counter allergy and cold medications. R.13311,13350,13664,13671-13672,14194-14195,14243.

While Uta had never been prescribed Xanax, Defendant wrote a prescription for Xanax for his mother—who lives in California—in the highest possible dosage just four months before Uta died. R.1875,1879,7271-7272,7975,7982-7984,7991-7992, 8003; State's Ex.356. Defendant picked up the prescription the following day at a pharmacy he had never used before—or since. R.1880,7978-7979,8817.

Investigators also learned that Uta did not take baths. R.9189,13377,14465. She had Raynaud's disease, a condition where she could not control the temperature in her fingers and it made taking a bath of cold water painful. R.14209-14210,14231-14232.

Investigators did not collect or test the residue from the bathtub. R.14169. But they did submit several items from the crime scene to Sorensen Forensics for DNA analysis. Sorensen Forensics analyzed blood stains on the fitted sheet; Uta's tank top; the purple towel; blood from one of the bloody footprints in the kitchen; the knife; scrapings from Uta's right fingernails; Uta's bed comforter; the white pillowcase; and a piece of fabric from the backseat of Defendant's Subaru, where Defendant has asked the carwash attendant to focus his cleaning. R.8815,8985,8990,8991,9008,9014,9020-9021.

This analysis determined that Defendant was a possible contributor to the DNA on the white pillowcase and on the comforter, and he could not be excluded or included as a possible contributor to the male DNA under Uta's right fingernails. R.4515. But nine others could be excluded as a source of the male DNA under Uta's fingernails, all of whom either had contact with Uta's body around her time of death or were possible suspects: Nils and Uta's ex-boyfriend Jack Salicky. *Id.*

Investigators finally noted that Uta did not leave a suicide note. R.1822, 6978. No one who knew Uta had seen her depressed. R.2840,8091-8092,9179-9180,9228,13433,13707,13722,14185-14186,14242,14461-14462,14774-14775. And of all 111 witnesses that police interviewed, only one person claimed Uta had been depressed or suicidal — Defendant. R.8896.

Defendant tells police he does not know where he was the night Uta died

Police interviewed Defendant the night Uta was found dead. R.14843. Even though they did not tell Defendant why they wanted to talk with him, Defendant did not ask any questions and accompanied them to the police station. R.14845-14846. There, he told the police that the last time he had seen Uta was the night before when he picked up the children from her house. R.14872-14873. Although he initially said that he stayed in the car, he later said "I think I got out of the car for a moment," but he was not sure. R.14950-

14951. He also could not remember if he had touched Uta anytime that week. R.14930,14947-14948. He said that he had been in Uta's house before, but he could not say when that had been. R.14926. And when asked if there was any reason his DNA would be under Uta's fingernails, Defendant responded, "I don't know." R.14931.

Defendant told police that he left his house that morning at about 6:45 or 7:00 a.m. to pick up eggs at the 7-11. R.14875-14877. He took his car to the carwash that morning because he "had extra time" and there were "burritos spilled all over" the front passenger seat. R.14917-14919,14996. He also told police that his dog, Molly, had scratched his eye during the night when he was sleeping outside. R.14878-14881. But Defendant told the police that he could not say if he had been home all night or if he had gone back to Uta's house. R.14956-14957,14969. Instead, he told them, "I don't know where the fuck I was!" R.14962.

Later, Pelle told police that he sat in the front passenger seat when Defendant picked them up from Uta's house the night before she was found dead, and there was nothing spilled on the front passenger seat. R.9204.

Defendant makes inconsistent statements in a deposition

Before the DNA results were returned, but while Defendant knew the tests were pending, Defendant was deposed in a civil case. His story changed

to potentially account for the return of the DNA results. For example, Defendant now claimed that when he picked up the children from Uta's house, Uta came out, opened the driver's side rear passenger door and hugged I.W. — the very spot where police had taken a swatch of fabric to test for DNA. State's Ex.332:15:20. To account for his DNA potentially being under Uta's fingernails, Defendant said that after Molly had scratched him during the night, he got up and noticed that the lights were on in his basement. State's Ex.329:9:20. As he walked into the basement to turn off the lights, he claimed to see Uta leaving through the garage door. *Id.* He said that he chased her, but Uta turned around and hit him in the face with her hand. *Id.* Uta then ran off. *Id.* Defendant claimed that Uta had broken into his basement "multiple times in previous months," but that he never reported her to the police. *Id.* at 9:27-28,10:34.

To account for his DNA being in Uta's bedroom, Defendant said that he had been in Uta's bedroom several times. State's Ex.331:14:10. He claimed that Uta had invited him over to talk and look at the children's scrapbooks. *Id.* Once, he declared, Uta tried to seduce him, but he declined. *Id.* Defendant said that the last time he had been in Uta's bedroom was a month before she died. State's Ex.381:154.

Finally, Defendant accounted for his whereabouts the morning Uta was killed but did not repeat his story that he went to get eggs at the 7-11. This time, he said that after Uta hit him, he went to his bedroom to sleep, but woke around 5:00 a.m. State's Ex.329:9:48. He decided to go to Primary Children's Hospital to work on his charts, but when he realized that he forgot his identification, he went for a hike in Emigration Canyon before the sun rose. *Id.*

A Primary Children's Hospital's medical records liaison later explained that the office is not open before 8:00 a.m. and doctors cannot access it outside of office hours. R.8038-8043.

B. Summary of proceedings and disposition of the court.

Defendant was charged with first degree murder. R.3-7. Defendant's theory at trial was that Uta either committed suicide or it was an accident. He contended that the knife wounds were self-inflicted and that she had taken Xanax voluntarily. And he claimed that the disturbed items in her bedroom were not signs of a struggle, but that she was under the influence of Xanax and was having difficulty with her balance and coordination as she made her way into the bathroom.

Defendant also pointed to Nils as the likely killer: his DNA was detected on several items in the bedroom and his whereabouts were unknown from 10:00 a.m. to 11:00 a.m. the day Uta was found murdered.

The jury returned a guilty verdict. R.1944,1969,10291. Post-trial, Defendant moved to arrest judgment on the grounds that, as relevant here, the evidence was insufficient, R.2022-2045,2561-2568; and that the State had presented some of the DNA evidence in a misleading manner, R.2049-2059, 2572-2575. The trial court denied both motions. R.3471-3480. Defendant timely appealed. R.3503-3504.

SUMMARY OF ARGUMENT

Point I. Defendant argues that the trial court abused its discretion when it denied his motion to arrest judgment because, according to him, it was more likely that Uta committed suicide than she was murdered. As a threshold matter, this Court should not consider this claim because he has not challenged the trial court's reasons for rejecting it below. But regardless, the trial court acted within its discretion to deny the motion because the evidence was not so inconclusive or improbable that it should not have submitted the case to the jury. Indeed, the evidence amply supported the jury's verdict where it showed that (1) it was unlikely that Uta would have attempted suicide when she was happy and excited for the future; (2) it was

unlikely that Uta would have attempted to strangle herself, inject herself with Xanax, dispose of the Xanax pill bottle, and clean bloody footprints from her bedroom and bathroom before she died; (3) the blood spatter and Uta's physical injuries showed a struggle occurred in Uta's bedroom and bathroom; (4) Defendant was the only one with the means, motive, and opportunity to kill Uta; (5) Defendant had injuries to his left eye and face consistent with a struggle and Uta had male DNA underneath her right fingernail; and (6) Defendant gave inconsistent versions of his whereabouts the night Uta was killed.

Point IIA. Defendant argues that the trial court abused its discretion when it denied his motion to exclude the State's expert testimony about the DNA on Uta's white pillowcase. He contends that the trial court should have excluded the testimony because it fell below the reliability requirement in rule 702(b), Utah Rule of Evidence. But the trial court properly exercised its discretion to admit the State's DNA expert's testimony, because Defendant's objections went to the evidence's weight, not its admissibility. Rule 702 allows the jury to do its traditional job—determine which of two qualified, but competing expert opinions was more convincing.

Defendant was not prejudiced in any event because the DNA was just a piece of the evidentiary puzzle and Defendant would have been convicted without it.

Point IIB. Defendant finally argues that his counsel should have objected to (1) the State's eliciting expert DNA testimony that, according to him, went beyond what the trial court permitted; and (2) the prosecutor overstating the DNA evidence in closing argument. But Defendant has not proved that all competent counsel would have objected to how the State presented and argued the DNA evidence at trial. In fact, there was no reason for counsel to object because the State's experts did not exceed the boundaries drawn by the trial court. And the prosecutor's summation was not so improper that counsel's only defensible choice was to interrupt those comments with an objection. But again, Defendant suffered no prejudice in any event, because even without the DNA evidence, Defendant would have been found guilty.

ARGUMENT

I.

THE TRIAL COURT ACTED WITHIN ITS DISCRETION WHEN IT RULED THAT AMPLE EVIDENCE SUPPORTED THE JURY'S GUILTY VERDICT

Defendant asks this Court to “vacate the verdict” because, according to him, “it was based upon speculation.” Br.Aplt.58. He contends that because “the evidence does not make homicide more likely” than suicide, the evidence was speculative and did not “extinguish reasonable doubt.” Br.Aplt.27.

As a threshold matter, this Court should not consider this claim because Defendant has not challenged the trial court’s reasons for rejecting it below. But regardless, the trial court did not abuse its discretion in denying Defendant’s motion to arrest judgment because the evidence was not so inconclusive or improbable that it should not have submitted the case to the jury.

A. This Court should not consider Defendant’s insufficiency- of- the-evidence claim because he has not challenged the trial court’s reasons for rejecting it below.

Post-verdict, Defendant moved to arrest judgment, arguing that the evidence at trial was insufficient to support his conviction. R.2022-2044. Specifically, he contended that the State had not proved “the manner of death was homicide” because the inferences from the trial evidence were

speculative where they supported “multiple possible inferences,” R.2027, — both homicide and suicide — and “‘none [were] more likely than the other.’” R.2026 (quoting *State v. Cristobal*, 2010 UT App 228, ¶16, 238 P.3d 1096, and citing *State v. Workman*, 852 P.2d 981 (Utah 1993)).

The trial court denied this claim. It distinguished *Cristobal* and *Workman* because, unlike in those cases, here there was “a very large quantum of evidence” that “support[ed] the conclusion that a homicide occurred,” including the crime scene reconstructionist’s testimony about blood spatter showing that “there was a violent struggle”; the medical examiner’s and the forensic pathologists’ testimony about Uta’s defensive wounds and neck hemorrhages showing that she had been attacked; and expert testimony about how Defendant may have administered Xanax to Uta. R.10334-10335, 3472-3473. The trial court further noted that evidence of Defendant’s motive, opportunity, the “inexplicable injuries” to Defendant’s eye, “the strange behavior that took place after the incident, the changing of his story between what he told the police versus what he said in his deposition,” all supported the conclusion not only that Uta was murdered, but that Defendant was the one who did it. R.10336, 3472.

Defendant notes this ruling only in a brief two-sentence statement in his statement of the case. *See* Br.Aplt.21. But Defendant never addresses the

trial court's ruling or challenges its reasoning. Instead, he argues anew, again citing *Workman* and *Cristobal*, that the evidence is insufficient to support his conviction because there are multiple inferences from the evidence and none "make[s] homicide more likely." Br.Aplt.27, 23-40.

This is insufficient to meet his burden on appeal. Where, as here, the trial court has already ruled on the defendant's claim, the defendant must challenge the bases for the trial court's ruling. "Since an appeal is a resort to a superior court to review the decision of a lower court, Utah appellate rules require the appellant to address [the] reasons why the district court's [decision] should be overturned." *Allen v. Friel*, 2008 UT 56, ¶14, 194 P.3d 903; *Ellis v. State*, 2014 UT App 50, ¶5, 321 P.3d 1174 (per curiam) (same). When he fails to do so, this Court must reject the claim. *See Gollaher v. State*, 2017 UT App 168, ¶13, 405 P.3d 831, 834-35, *cert. denied*, 409 P.3d 1048 (Utah 2017) (explaining that "[t]o carry his burden of persuasion on appeal, an appellant must address 'the actual basis for the district court's ruling.'"); *State v. Newton*, 2018 UT App 194, ¶20, P.3d (dismissing claim without review because Newton made same arguments on appeal that he made in motion for new trial, but did not challenge the trial court's ruling). Because Defendant has not addressed the reasons the trial court denied his motion to arrest judgment based on insufficient evidence, this Court should reject his claim

that it should reverse on insufficient evidence. *Needham*, 2016 UT App 235, ¶2, 391 P.3d 295 (rejecting Needham’s challenge on appeal where he failed to address “the basis of the trial court’s ruling”).

B. The trial court did not abuse its discretion in denying Defendant’s motion to arrest judgment because the evidence was not so inconclusive or improbable that it should not have submitted the case to the jury.

When considering an insufficiency-of-the-evidence claim, appellate courts “review the evidence and all reasonable inferences drawn therefrom in a light most favorable to the verdict” and “will reverse ‘only when the evidence, so viewed, is sufficiently inconclusive or inherently improbable that reasonable minds must have entertained a reasonable doubt that the defendant committed the crime of which he or she was convicted.’” *State v. Jones*, 2015 UT 19, ¶15, 345 P.3d 1195; *accord State v. Montoya*, 2004 UT 5, ¶33, 84 P.3d 1183 (explaining that so long as there is “some evidence” supporting each element, the verdict stands). This standard of review is “‘highly deferential,’” *Jones*, 2015 UT 19, ¶68 (quoting *State v. Nielsen*, 2014 UT 10, ¶30, 326 P.3d 645), and reviewing courts “do not consider possible alternatives.” *Id.* at ¶73. Rather, they “*must* view the evidence in the light most favorable to the verdict.” *Id.* (emphasis added).

Defendant’s argument on appeal does not show that the jury relied on speculation, but only that it chose the State’s theory of the evidence over his.

But as the constitutionally designated factfinder, a jury can and must decide where the truth lies by sifting and evaluating the evidence and choosing whom to believe. As long as there is “*any evidence, however slight or circumstantial*, which tends to show the guilt of the crime charged,” courts are duty-bound to submit the case to the jury. *Montoya*, 2004 UT 5, ¶33 (emphasis added).

Indeed, the inference of suicide is not more likely than homicide; suicide cannot account for all of the evidence here. Someone left bloody shoeprints in the bedroom, bathroom, and kitchen and then cleaned them from the bedroom and bathroom before Nils and first responders arrived. But a person committing suicide does not clean up the scene before they die.

Someone injected Uta with a near-lethal dose of Xanax and then took the pill bottle with him; the pill bottle was never found in Uta’s home. But a person committing suicide does not dispose of their pill bottle so that it cannot be found.

Someone strangled Uta causing hemorrhages in her neck and petechia in her eye. But a person committing suicide does not strangle themselves. Uta had further injuries consistent with a struggle and the blood spatter evidence showed that a “violent struggle” occurred on her bed.

The evidence pointed to Defendant as the most likely someone. He was the only person with the opportunity, means, and motive to kill Uta. He had the medical knowledge necessary to select the drug that would incapacitate her, and he knew how to inject her. He had recently obtained a prescription for the strongest possible dosage of Xanax, purportedly for his mother who lived out of State. Defendant was not home at the time Uta was killed and he gave inconsistent accounts of his whereabouts. That morning, he arrived late to work and took his car to be washed even though patients were waiting for him. Defendant had not changed his clothes from the day before, he had a scratch on his left eye and cheek consistent with a human nail, and his eyeglasses were broken on the left side. When police questioned Defendant that evening, he did not ask why they wanted to talk to him. And he told them that he could not remember almost everything he had done the night before. Then months later, he gave a detailed account of that night in an unbelievable story that was not only inconsistent with what he had previously told the police, but that would potentially account for the pending DNA tests. Defendant was the only person who hated Uta, the woman whom he believed had ruined his life and had recently filed to modify custody. He had expressed to others his wish that Uta were dead and after Uta died, he told his son that it was better that she was gone. And the purported

explanation for the suicide—depression—came only from Defendant. Everyone else described her as happy, upbeat, in love, and excited for the future.

The evidence amply supported the jury's verdict where it showed that it was unlikely that Uta would have attempted suicide when she was happy and excited for the future; (2) it was unlikely that Uta would have attempted to strangle herself, inject herself with Xanax, dispose of the Xanax pill bottle, and clean bloody footprints from her bedroom and bathroom before she died; (3) the blood spatter and Uta's physical injuries showed a struggle occurred in Uta's bedroom and bathroom; (4) Defendant was the only one with the means, motive, and opportunity to kill Uta; (5) Defendant had injuries to his left eye and face consistent with a struggle and Uta had male DNA underneath her right fingernail; and (6) Defendant gave inconsistent versions of his whereabouts the night Uta was killed.

The evidence was clear: Uta was murdered. And Defendant was the one who murdered her.

II.

THE TRIAL COURT PROPERLY EXERCISED ITS DISCRETION TO ADMIT THE STATE'S DNA EXPERT'S TESTIMONY, AND DEFENDANT HAS NOT PROVED THAT ALL COMPETENT COUNSEL WOULD HAVE

OBJECTED TO HOW THE STATE PRESENTED AND ARGUED THE DNA EVIDENCE AT TRIAL

Defendant also attacks the DNA evidence. He contends that the trial court abused its discretion under rule 702(b), Utah Rules of Evidence, when it allowed the State's experts to testify about the DNA analysis of Uta's white pillowcase (Item 25.1). Br.Aplt.45-46. Defendant also argues that his counsel was ineffective for not objecting to (1) the State's eliciting expert DNA testimony that, according to him, went beyond what the trial court permitted, and (2) the prosecutor overstating the DNA evidence in closing argument.

Defendant's claims fail. First, his rule 702 challenge goes to the weight of the evidence, not its admissibility. And second, Defendant has not proved, as he must, that all competent counsel would have objected to how the State presented and argued the DNA evidence. Regardless, the DNA evidence was not the linchpin of the State's case, but one piece in the evidentiary puzzle. Defendant would have been convicted without it.

A. Background of DNA testing and proceedings below.

In order to understand Defendant's claims on appeal, the State provides a detailed background of DNA testing generally, the DNA evidence in this case, and Defendant's challenges to the DNA evidence below.

1. DNA analysis.

DNA defines who we are. It is a genetic blueprint made up of 23 pairs of chromosomes and is found in the nuclei of most cells in the human body. R.4467,8970. Twenty-two of the chromosomal pairs are called “autosomal” and control non-sex traits. R.4467-4468,5255,5278,8970-8971. The twenty-third chromosomal pair is sex determining, made up of an X and X chromosome for women, and an X and Y chromosome for men. *Id.* Apart from identical twins, no one’s DNA is the same as someone else’s. R.4467,8970. Yet only one percent of our DNA differs from person to person and distinguishes individuals. R.4467,4499,8969. It is this one percent of DNA that forensics targets to identify who left their DNA behind at crime scenes. R.8971,9032.

In this one percent of individualized DNA, patterns repeat themselves at certain locations along the genome. R.8973-8974. Called short tandem repeats, or STRs, the number of times a pattern repeats itself lets us place distinguishing labels on the STR pattern at that location—called an allele. For example, if the pattern repeats 11 times, the allele at that location is an 11. R.4489,8974. At each location, or locus, an individual has a pair of alleles—one from each chromosome and inherited from each biological parent. R.4489,5254,5257. So if someone inherited an 11 allele from their mother and

a 15 allele from their father, they will be 11, 15 at that locus with an STR pattern repeating 11 times at one allele and 15 times at the other.

Autosomal STR analysis targets 16 of these individualized STR locations, or alleles, along the 22 autosomal chromosomes. R.4499. There are five steps.¹ First is extraction. In this step, the analyst extracts DNA from the cells and isolates it from other cellular materials. R.4495,5412,8972,9028-9029. Next, in the quantification step, the analyst quantifies the extracted DNA to determine how much DNA was isolated at those 16 loci. R.4501,5412,8972,9029. The third step is called amplification. Similar to a “DNA photocopier” or “Xerox machine,” the analyst copies the DNA. Using polymerase chain reaction, the DNA “ladder” is split down the middle. R.4502,5260,5410,8972,9030; State’s Ex.382, p.7. The DNA then re-bonds with chemicals to produce a ladder identical to the original so that there are twice the number of complete ladders. R.9030-9031. This process is repeated for several cycles until millions of copies have been made. State’s Ex.382, p.7.

In the fourth step, the analyst injects the DNA with a fluorescent dye and runs it through an electrophoresis machine. R.5410-5411,9031-9032. This machine measures the alleles’ fluorescence in relative fluorescent units

¹ Forensic DNA analysts use commercial kits for the first four steps. R.5260, 5331-5332.

(RFUs). R.4502,9032,9034. A software program then puts this information into a graph, called an electropherogram. R.4502,5257. Alleles are expressed as peaks on the electropherogram at the 16 tested loci. R.5257,8974,9033. Two peaks will appear at each locus—one for each allele, unless someone inherited the same allele from both parents, and then only one peak will be “visible” at that locus.² R.8975. The peaks appear taller or shorter depending on how much DNA is present at that allele. R.5284.

In the final step of autosomal STR DNA analysis, a forensic DNA analyst interprets the data from the electropherogram and compares it to other DNA profiles. R.4464,8980,8988. By assessing the number of peaks, peak heights, the allele numbers, and other relevant information, the analyst can often determine if a person’s DNA profile “matches” the DNA left at a crime scene. R.8988-8989. A person is “included” as a possible contributor to the DNA left at the crime scene if all the person’s alleles are the same as the crime scene DNA’s at every locus. In contrast, if a person’s alleles are different at least one locus—for example, the person has 11 and 15 alleles at one locus, but the crime scene DNA has an 11 and 23 at that same locus—the profiles do not match and the individual is excluded. R.8989,9069.

² Where two alleles appear, the locus is called a heterozygote locus. Where one appears, it is a homozygote locus.

Exclusion is “absolute” because the forensic analyst can “say for certainty” that the person’s DNA and the crime scene DNA are not the same. R.4482, R.5338. Inclusion, on the other hand, is not absolute. It requires a statistical weight to show the probability that the match is not random. R.4492. Using what is called the product rule method, the forensic analyst determines the frequency statistic at each locus and then multiplies those frequencies together to get a final probability statistic. R.4492,8978. The higher the statistic, the lower the probability that it is not a coincidental match. For example, if the statistic is one in 1.55 billion Caucasians, it means that it is 1.55 billion times more probable that the person’s DNA and the crime scene’s DNA are the same than a coincidental match.

When every allele matches at all 16 loci, the probability of a random match becomes a statistical impossibility. But when the sample contains more than one person’s DNA or the DNA profile does not contain all 16 alleles, the statistic is lower and the probability of a random match is greater.

Y-STR analysis is the same as autosomal STR DNA analysis except that this testing examines only loci on the male Y-chromosome. R.5273,8976. Unlike an STR profile that is unique to each individual, the Y-STR profile is inherited in whole and all men in their paternal line have an identical Y-STR

profile, barring a mutation. R.4468,8977-8978. That means a son will have the same Y-STR profile as his brother, father, grandfather, and on up the line.

The statistical analysis for Y-STR DNA testing is also different. Because only the single Y-chromosome is analyzed and there are no sister alleles, forensic analysts use the “counting method” to “count” the number of times that the same Y-profile is found in a national population database.³ R.4470, 4513,8978-8979. This statistic is “much, much lower” than autosomal STR’s product rule statistic. R.4487,8979. In other words, the probability of a random match is higher for a Y-STR profile.

When interpreting and comparing DNA profiles, forensic analysts also watch for any “stochastic effects.” Stochastic effects are imperfections—random additions to or subtractions from the DNA sample that may appear on the electropherogram. R.5267. There are five common stochastic effects. One, “drop-in” is the appearance of an allele that is not actually part of the DNA sample. Drop-in can occur from contamination of the sample.

Two, “drop-out” is the failure of an allele from the sample to register at one or more loci. R.5264-5267. When a sample is degraded or there are very low levels of DNA, the alleles can dimly fluoresce, making them difficult

³ One of the 16 loci tested in Y-STR DNA analysis, however, does have two alleles. R.5291-5292.

to detect. *Id.* An allele can also fail to amplify. Drop-out can make a heterozygote locus—a locus where there are two different alleles—appear like a homozygote one—a locus where only one peak is visible because the person inherited the same allele from both parents. Or drop-out can make a locus disappear with no allele appearing at all.

Three, “stutter” is an echo effect where a DNA strand slips during amplification and “leaks” back to the previous locus. R.5262. Stutter appears on the electropherogram as a much smaller peak immediately preceding the neighbor allele it echoes.

Four, “peak imbalance” occurs when one allele is amplified to a greater extent than the other allele at that locus, creating more copies of one allele in comparison to the other. *See U.S. v. Morgan*, 53 F.Supp.3d 732, 737 (S.D.N.Y. 2014). As a result, one peak will be higher than the other allele at that locus, making it appear that one allele is present to a much greater extent than the other allele. *Id.*

Finally, an electropherogram can also show “instrument noise” which is background signals from the electrophoresis machine. R.5263. Instrument noise appears as very low peaks on the electropherogram and is not DNA. R.5263.

Analysts can typically identify stochastic effects and disregard them. For example, true DNA peaks are all relatively close in height. R.5257. True DNA also has a rounder peak than non-DNA and shows up at specific places, called bins, on the electropherogram. R.9955. Drop-in alleles, stutter, and instrument noise also have only a fraction of the peak height of true DNA and can appear outside the proper bins.

Forensic laboratories can also minimize the occurrence of stochastic effects by following forensic DNA analysis guidelines, like those from the Scientific Working Group on DNA Analysis Methods (SWGDAM), and establishing policies at their labs. For example, forensic DNA testing laboratories may establish standard operating procedures, which are “step by step instructions ... on how each process is done.” R.4502,5405,8965. Forensic analysts may also run “validation tests” for each test to see how the DNA test kit “behaves” on the lab’s instruments and how “sensitive” it is. R.5267,5331. When testing the DNA, analysts may run positive and negative controls alongside the tested DNA sample. A positive control is another sample whose results are known so that the analyst can confirm that there was no error in any of the DNA analysis steps. R.4502. Negative controls test for contamination and “should be blank” to show that “there was no contamination.” R.4502-4503,8966.

Finally, forensic analysts should also establish two thresholds—the stochastic threshold and the analytic threshold—every time before they test a DNA sample. The stochastic threshold determines a minimum peak height above which the analyst is “confident” that sister alleles have not dropped out.⁴ R.5268,5270,5392,5408. The analytical threshold is lower than the stochastic threshold and “defines the minimum height requirement at and above which detected peaks can be reliably distinguished from background noise.” R.5406. In other words, if a peak is above the analytical threshold, the analysts can be “confident” that it is DNA and not instrument noise. R.5269,9048,9067.

Implementation of these policies and procedures, however, does not mean that DNA analysis is always straightforward or that analysts will interpret a DNA profile the same way. Indeed, analysis can become more complicated—and is thus more open to interpretation—when a DNA sample is mixed, the sample is degraded, or the sample contains a very small amount of DNA, called low template.

⁴ Y-STR DNA testing, however, does not require a stochastic threshold. R.5291-5292, 5301. Y-STR testing targets alleles only on the Y chromosome so there are only single alleles at each tested loci (except one). There is thus no concern that a sister allele will drop out. *Id.*

A sample is mixed when it contains more than one person's DNA. R.5271. A mixed sample will appear on an electropherogram with more than two peaks at the tested loci. R.5257,8974,9043-9044. Although the sample may appear to be a "genetic soup," analysts can still identify contributors to a mixed-source sample by comparing a person's alleles at each loci to those in the sample. R.15264. If all a person's alleles are present in the crime scene DNA sample, that person is a "possible contributor." An analyst can also determine who are the major and minor contributors to the sample because a minor contributor's peaks are shorter than the major contributor's, who contributed more DNA. R.5284,8994,8997,9045. The probability of a random match is greater in a mixed-source sample because a forensic analyst has to "account" for all the possible contributors. R.4492,4524-4525.

DNA degradation occurs when DNA has been broken into pieces by exposure to moisture, heat, chemicals, bacteria, and the like. R.5271. When this occurs, alleles may be missing at one or more of the tested loci and the resulting DNA profile is called a "partial profile." If enough alleles are present, however, an analyst can still make comparisons between the samples.

Finally, low template samples are more prone to stochastic effects.

2. Sorensen Forensics.

Sorensen Forensics is a private forensic DNA lab that performed the DNA testing in this case. Sorensen follows SWGDAM guidelines. R.5406. As recommended, Sorensen has established standard operating procedures, and they run validation tests and positive and negative controls for every sample they test. R.4502-4503,5267,5331,8966. In addition, every forensic report that a Sorensen analyst prepares undergoes a “technical review” by another analyst before it is released. R.8967.

Sorensen established two policies that are relevant here. First, if they obtain only a partial profile from a crime scene sample, alleles must be present at at least 7 loci for Sorensen to make any inclusionary conclusions. R.4484,4521,5294. This sample is termed “[s]uitable for comparison,” and the analyst can make both inclusionary and exclusionary conclusions. If someone’s alleles match all the crime scene sample’s alleles, he is deemed a possible contributor to the sample. But Sorensen will use only the present loci for its statistical probability calculations, making the probability of a random match higher than in a sample with more alleles present.

If alleles are present at less than 7 loci, the sample may still be used for comparisons, but it will be “suitable for exclusionary purposes only.” If Sorensen cannot exclude someone because there is no direct inconsistency

between his profile and the crime scene sample's partial profile, Sorensen will neither include or exclude him, but report that "no meaningful conclusions could be made to this known sample." This protects against the inference that the individual is included. R.5426. And because no inclusionary conclusions have been made, Sorensen cannot provide an inclusionary statistic; the determination carries no statistical weight. R.5425,5427. If there is not enough data in a sample, Sorensen will deem the sample "inconclusive" and not use it for comparisons at all. R.5424-5425.

Second, in response to SWGDAM's guideline that labs should establish a procedure for including or excluding someone when a person's full profile is not observed in the crime scene DNA sample, and after speaking with other labs, Sorensen established the use of "confirmatory replication amplification." R.5413,9918-9919,9953. In this procedure, if Sorensen observes data below the analytical threshold that could be DNA—based on peak shape, bin position, and allele number—and it gives them pause in categorically excluding someone, they will conduct another "amplification event." R.9954. For example, if a person's DNA profile matches the crime scene sample's profile at all 16 loci, but one allele at one locus is below the analytical threshold, and this allele is in the proper bin, and has the peak shape of true DNA, Sorensen may lack confidence in absolutely excluding

the person as a possible contributor to the sample. To better inform their decision to exclude or not, Sorensen analyzes the DNA sample a second time. It takes part of the original sample that has already been extracted and quantified, and begins anew at step three, amplification. R.5411-5412. If the same data is reproduced in the second event—the new electropherogram exhibits the same peaks in the same positions—Sorensen has more confidence that the below-threshold data is true DNA, although they cannot be “absolutely certain.” R.5431,9948,9953. Likewise, if the data is not reproduced, Sorensen has more confidence that the data is not true DNA, but a stochastic effect. R.5413,5431-5432.

Sorensen picks one of the two “amplification events” to report, but uses the information from the other amplification event to inform its decision whether to exclude the individual or not. R.5409,5413. If Sorensen chooses not to exclude the individual based on this information, it will not include the below-threshold allele in its report, but will place an asterisk at that locus, which means the test was “inconclusive for the presence of additional alleles.” R.5420-5421. Sorensen also will not use asterisked loci in its probability calculations, making the inclusionary statistic lower. R.9955-9956. Both of these policies and procedures were scrutinized and “blessed” by outside accreditation bodies. R.5453,9919-9920. Sorensen has been

accredited by two separate accrediting bodies, including FBI Quality Assurance Standards, since 2007. R.5400-5403,8964,9908-9909. Accreditation confirms that Sorensen complies “with quality standards that are specific to forensic DNA testing” and that they have passed a “small-scale” audit every year and a “full-scale” audit every five years. R.5403-5405,8964,9908-9909. To pass an audit, auditors examine Sorensen’s standard operating procedures, their lab manual, their validation tests, their operations, and their policies and procedures for compliance. R.5403,8964.

3. The DNA evidence.

Emily Jeskie, Sorensen Forensics’ lead DNA analyst, performed the DNA testing in this case. She has a bachelor’s degree in molecular biology and, at the time of trial, had worked as a forensic DNA analyst for over twelve years. R.8961-8962; State’s Ex.467. She received specialized forensic DNA education, passed a certifying exam, attended yearly continuing education courses, and was proficiency tested every 6 months. R.8963.

Ms. Jeskie analyzed several items from the crime scene: blood stains on the fitted sheet, Uta’s tank top, the purple towel, blood from one of the bloody footprints in the kitchen, the knife, scrapings from Uta’s right fingernails, Uta’s bed comforter, the white pillowcase, and a piece of fabric from the back seat of Defendant’s Subaru. R.8985,8990,8991,9008,9014,9020-9021. The tests

revealed that Defendant was a possible contributor to the DNA on the white pillowcase and on the comforter, and that Defendant could not be included or excluded as a possible contributor to the DNA under Uta's right fingernails. R.4515.

a. Defendant could not be included or excluded as a possible contributor to the Y-STR DNA under Uta's righthand fingernails (item 2.0).

Uta had a small amount of male DNA under her righthand fingernails, an "unusual" and "rare" finding. R.4481,9008-9011,9926. Because the sample was so degraded—likely because Uta had been under running water for so long—Ms. Jeskie was able to obtain only a partial profile using Y-STR analysis. R.4484,4521-4522,5294. Five loci were present, and Defendant's alleles were the same as the sample on all 5 loci. R.4483-4484.

Table 1. Comparison of Y-STR Profile from Scraping of Utah's Right-Hand Fingernails (Item 2.0) to Defendant's Y-STR Profile

<i>Allele Locus</i>	<i>Fingernail Sample Y-STR Alleles</i>	<i>Defendant's Y-STR Alleles</i>
DYS389I	14	14
DYS458	16	16
DYS19	14	14
DYS393	13	13
DYS391	11	11

Source: The data in this table is taken from State's Exhibit 3 from the November 10, 2014 hearing, located in a manila envelope in Box 1 of the record.

Because there were not at least 7 loci present in the sample, however, Ms. Jeskie could not include Defendant as a possible contributor; the sample was suitable for exclusionary purposes only. R.4483-4484,4521,5294,5426, 9010. Yet because there was also no direct inconsistency – Defendant’s alleles were the same as the sample’s – Defendant could not be excluded either. According to Sorensen Forensics’ policy, Ms. Jeskie thus determined that she could draw no conclusions as to Defendant. R.9011. She reported that she could make “no meaningful comparison[s]” between the profiles. *Id.*

Ms. Jeskie, however, was able to exclude nine other males, including Nils, Jack Skalicky, the first responders, and the crime scene technicians because their alleles did not match the sample at at least one of the five present loci. R.5428,9013-9014.

b. Defendant was a possible contributor to the autosomal STR DNA on Uta’s comforter (item 13.4).

Ms. Jeskie tested five areas of Uta’s comforter. R.9016-9021. Four of the tests either excluded Defendant or were inconclusive for male DNA. *Id.* The fifth autosomal STR test, however, included Defendant as a possible contributor. R.9020; State’s Ex.173. In this test, Ms. Jeskie used the M-Vac process – “a DNA wet vac” that soaks an area with liquid, sucks it up, and then filters out the DNA – to test the bloodstain labeled 3D. R.5435,9020,9055-9056; State’s Ex.173. Bloodstain 3D was a bloody left handprint with a cloth

transfer swipe through it, possibly made by a glove. R.9020,13515-13516,13559; State's Ex.173.

The sample was mixed and had at least four contributors. R.9020; State's Ex.173. Uta was the major contributor and Defendant and Nils were included as possible minor contributors with a probability statistic of 1 in *Id.* All of Defendant's autosomal STR alleles—making up his complete and unique STR profile—were accounted for in the sample. R.9020-9021,9063,9065,9099.

c. Defendant was a possible contributor to the Y-STR DNA on the bloodstain on Uta's white pillowcase, but he was excluded on an autosomal STR test of the same stain (item 5.3).

Ms. Jeskie performed three tests on Uta's white pillowcase. R.9021. The first two tests analyzed the bloodstain on the pillowcase (item 5.3). Ms. Jeskie first swabbed the bloodstain and submitted it for Y-STR testing. R.9022, 9073-9074. Y-STR testing is helpful where, like here, there is a large amount of female DNA that can overwhelm and mask the presence of male DNA. R.4471, 8979-8980. Because a large amount of DNA appears as large peaks on the electropherogram, if the amount of male DNA is very low in comparison, its peaks may not be visible, although it is there. R.5284, 9924, 9938. Much like a window, the electropherogram captures only the landscape in front of it—in the case of overpowering female DNA, very high peaks. *Id.* Y-STR testing

can unmask this male DNA, however, by isolating it from the larger female contribution. R.4471, 8979-8980.

Ms. Jeskie detected at least two Y-STR contributors, with Nils included as a possible major contributor with a probability of 1 in 2,841 and Defendant included as a possible minor contributor with a probability of 1 in 2,381. R.9023, 9073-9074.

Ms. Jeskie later ran an autosomal STR test on the same bloodstain. R.9023. The STR test detected that at least three people contributed DNA to the sample and included Uta and Nils as possible contributors. R.9024, 9074-9075. Defendant, however, was excluded. *Id.* But because Uta's blood would have overwhelmed the small amount of other DNA in the sample, it was not surprising that Defendant's DNA did not appear on the electropherogram. R.4471, 5284, 8979-8980, 9938.

d. Defendant was a possible contributor to the M-Vac collection of autosomal STR DNA on Uta's white pillowcase (item 25.1).

For the third and final test of the white pillowcase, Ms. Jeskie used the M-Vac process on a larger area of the white pillowcase and avoided the bloodstain. R.9023, 9025. The resulting electropherogram showed that all of Defendant's autosomal STR alleles were present at every loci in the sample, although three of his alleles were below the analytical threshold. R.1509,

1513-1514, 5421-5422, 9093-9096. To obtain further information, Ms. Jeskie used Sorensen's "confirmatory replication amplification" process and ran another amplification event. R.5422. She obtained the same results on the second event, except that one of Defendant's alleles dropped out at locus FGA. R.9093-9096.

Table 2. Comparison of M-Vac STR Profile from Second Amplification Event of Uta's White Pillowcase (item 25.1) to Defendant's STR Profile.

<i>Allele Locus</i>	<i>White Pillowcase's STR Alleles (25.1)</i>	<i>Defendant's STR Alleles</i>
D8	10, 11, 12, 13, *(17 detected below the analytical threshold)	13, 17
D21	27, 29, 30, 31, 31.2	29
D7	9, 11, 12, 13, *(10 detected below the analytical threshold)	10, 11
CSF1	10, 11, 13	11, 13
D3	15, 16, 17, 18	15, 17
TH01	6, 7, 9, 9.3	6, 7
D13	8, 9, 12, 14	12, 14
D16	9, 11, 12, 13	9, 12
D2	19, 20, 22, *(25 detected below the analytical threshold)	20, 25
D19	13, 13.2, 14, 15, 15.2	14, 15
vWA	17, 18, 19	17, 19
TPOX	8, 10	8
D18	12, 13, 15	12, 13
AMEL	X, Y	X, Y
D5	11, 12	11, 12
FGA	21, 22, 25 (26 detected above the analytical threshold on the first amplification event)	22, 26

Source: State's Ex.387, Daniel Hellwig's PowerPoint presentation, p.3-4.

Based on the information from both amplification events, Ms. Jeskie concluded that Defendant was a “possible” contributor to the sample. R.9025-9026, 9066. There were two other possible contributors to the sample – Uta and Nils – and all three contributors had a probability statistic of 1 in 197,000. R.9025-9026. Their combined alleles accounted for all the alleles in the sample. R.9913-9914.

Ms. Jeskie used the second amplification in her report. R.5422; State’s Ex.387, attached at Add. __. As required by Sorensen’s policy, Ms. Jeskie did not report Defendant’s three alleles that were under the analytical threshold, nor did she report the allele that dropped out at locus FGA. R.5420-5421; State’s Ex.387. Ms. Jeskie instead put an asterisk at the three below-threshold loci and included the statement that those loci were “inconclusive for the presence of additional alleles.” R.5420-5421. Finally, Ms. Jeskie did not use those loci in her statistical calculations. R.9955-9956.

4. Defendant moved in limine to exclude the State’s DNA evidence.

Before trial, Defendant moved to exclude the DNA evidence from Uta’s righthand fingernails, Uta’s comforter, and Uta’s white pillowcase R.766-767, 968, 1411-1445. He first argued that the results from the DNA analysis under Uta’s righthand fingernails (item 2.0) lacked “scientific reliability” under rule 702, Utah Rules of Evidence, because Ms. Jeskie could make “no meaningful

comparisons’” between Defendant’s profile and the sample, a conclusion that “really mean[s] nothing.” R.770-776, 5603, 1348-13451. He further argued that the evidence was unfairly prejudicial under rule 403, Utah Rules of Evidence, because where other individuals had been excluded from contributing to the sample, but Defendant had not, it created the unjustified inference that Defendant was actually included as a possible contributor to the DNA sample. R.775-776, 1350-1352, 5603, 5606.

As for the DNA evidence from the bloody handprint and glove swipe on Uta’s comforter (item 13.4), Defendant argued that its minimal probative value was substantially outweighed by unfair prejudice under rule 403 because Defendant’s autosomal STR profile was likely really his children’s DNA. R.972-973. If all four of his children’s DNA were present, Defendant contended, it would account for all of Defendant’s alleles and his autosomal STR profile would appear even if he never contributed any DNA to the sample. *Id.* Defendant, however, abandoned this challenge before the trial court ruled. R.5610.

Defendant also argued that the results of the Y-STR analysis of the bloodstain on Uta’s white pillowcase (item 5.3) were unfairly prejudicial under rule 403, Utah Rules of Evidence, because he was excluded on the autosomal STR test of the same stain. R.970-971, 1353-1354. He contended that

if both tests were considered together, the DNA must be his son Pelle's, not Defendant's. R.5609, 3153-1354.

Defendant finally argued that Ms. Jeskie's use of confirmatory replication amplification in her analysis of the M-Vac of the white pillowcase (item 25.1) was unreliable under rule 702, Utah Rules of Evidence. He asserted that Ms. Jeskie should have excluded him as a possible contributor to the sample because data below the analytical threshold is not reliable and should always be disregarded. R.1355-1358. He further argued that Ms. Jeskie should have excluded Defendant because Defendant's allele dropped out at locus FGA on the second amplification event – the event that Ms. Jeskie relied upon. *Id.*

The trial court held an all-day evidentiary hearing and then heard oral argument on Defendant's DNA motions. R.5601-5618. At the hearing, Defendant's expert witness, Dr. Elizabeth Johnson testified, and Daniel Hellwig, Sorensen Forensics' lab director, testified as an expert for the State. Ms. Jeskie had previously testified at Defendant's preliminary hearing.

Dr. Johnson first criticized Ms. Jeskie's conclusion that she could not make any meaningful comparisons between Defendant's profile and the DNA found under Uta's right fingernails (item 2.0). Although she agreed that Ms. Jeskie correctly excluded the nine other individuals, Dr. Johnson asserted

that by not excluding Defendant, it was the “same thing as saying he’s included.” R.5299, 5388, 5398. And this, she said, violated SWGDAM’s guideline that all inclusionary comparisons contain a probability statistic. R.5280-5281, 5300, 5341-5345, 5388, 5405.

Mr. Hellwig, the State’s expert and director of Sorensen Forensics, disagreed with Dr. Johnson’s conclusions. Although he agreed that not including or excluding Defendant as a possible contributor to the DNA under Uta’s fingernails (item 2.0) was a “paradox,” he explained that they could not conclude that the sample was inconclusive and not suitable for any comparisons because they *could* exclude the nine other individuals. R.5428. Mr. Hellwig explained that many forensic labs were confronting the same “paradox” where they could not exclude or include an individual and had come to the same conclusion as Sorensen Forensics: they would state that they could not exclude or include someone and also use a statement that indicates “there is no meaning in this comparison.” R.5432-5433, 5468.

Dr. Johnson also testified that because Defendant was excluded on the autosomal STR test of the bloodstain on Uta’s white pillowcase, the Y-STR profile must belong to one of Defendant’s sons (item 5.3). R.5385. As a result, she claimed, Defendant should have been excluded from contributing to the Y-STR profile as well. *Id.*

Mr. Hellwig likewise disagreed that because Defendant was excluded from the autosomal STR test on the bloodstain on Uta's white pillowcase (item 5.3), the Y-STR profile must be one of his sons', and Defendant therefore must be excluded from the Y-STR test. R.5463,9922. Mr. Hellwig explained that when there is an overpowering amount of DNA from a major female contributor, a small amount of DNA from a minor male contributor will not show on an autosomal STR test. R.5463. But it will appear on the Y-STR test, he said, because the male DNA was isolated from the female. *Id.* Dr. Hellwig thus testified that it was "impossible" to conclude that Defendant should be excluded from both tests on the bloodstained pillowcase. R.5463.

Dr. Johnson finally testified that Defendant should have been excluded as a contributor to the DNA collected by M-Vac on the white pillowcase (item 25.1). R.5314. Although she agreed that all of Defendant's alleles were accounted for in the sample, she stated that Ms. Jeskie should have disregarded the dropped allele at the FGA locus and any data below the analytical threshold. R.5315-5319, 5334-5335. Instrument noise below the analytical level, she said, was "too easy to confuse" with DNA. R.5269, 5391.

Mr. Hellwig did not agree that Defendant should be excluded from the DNA collected by M-Vac on the white pillowcase (item 25.1) because Ms. Jeskie considered data below the analytical threshold. R.5418. He said that

Dr. Johnson was applying the analytical threshold as a floor where “nothing exists” below it. R.5418. SWGDAM, he stated, did not require — or endorse — this interpretation. For Sorensen Forensics, the analytical threshold “is not a floor but a ceiling.” R.5406. Above the threshold, he explained, they can “rely” on the peaks to “be really truly DNA,” while below the threshold, they simply “lose confidence” that the data is DNA because it “is not *as* reliable.” R.5406-5407, 5418 (emphasis added). He confirmed that SWGDAM does not prohibit considering data below the analytical threshold and that several labs, including the Utah Crime Lab, use an asterisk or a star to designate data they detected below threshold. R.5406-5407, 5424. Indeed, to ignore relevant information, Mr. Hellwig testified, could make “an exclusion inaccurate.” R.5418, 5423.

Mr. Hellwig further stated that although he was not aware of scholarly articles assessing the use of confirmatory replication amplifications, he learned the technique from the director of a forensic DNA lab and scientist at SWGDAM. R.5466. It was “basic science” he explained; “if you are able to reproduce an event, your confidence” in that event is “escalated.” R.5413, 5431-5432. In fact, Mr. Hellwig said, SWGDAM approved the use of “composite profiles,” where data from more than one amplification event is not only considered, but is compiled into one profile. R.5408-5409.

5. **The trial court denied Defendant's motions to exclude the State's DNA evidence and ruled that the parties could present their different interpretations of the evidence through expert testimony, cross-examination, and closing argument.**

The trial court denied Defendant's motions to exclude the State's introduction of the DNA evidence. *See* R.1702-1719, attached at Addendum C. In its rule 702 analysis, the court found that Ms. Jeskie's and Mr. Hellwig's education and experience qualified them as experts; and Sorensen Forensics, a nationally accredited lab that follows SWDAM guidelines, used methodologies for autosomal STR and Y-STR DNA analysis that are generally accepted and have been previously upheld by the Utah Supreme Court. R.1705-1706 (citing *State v. Maestas*, 2012 UT 46, ¶132, 299 P.3d 892 and *State v. Jones*, 2015 UT 19, ¶27, 345 P.3d 1195).

In its rule 403 analysis, the trial court noted that the DNA evidence under Uta's fingernails was probative to (1) show that Uta had contact with a male close to the time of her death; (2) "help the jury determine whether a male individual played a role in the alleged victim's death, as opposed to the death being a suicide or accident, as posited by Defendant"; (3) "show the police conducted a thorough investigation of the crime scene and were able to exclude nine potential contributors to the sample"; and (4) that on the day Uta died, "Defendant had a scratch on his face consistent with a human nail

and [he] made inconsistent statements regarding the scratch.” R.1705-1706, 1708-1709.

The trial court “agree[d] the State’s witness should not be allowed to indicate Defendant’s DNA profile was ‘not excluded’ from the sample *without further explanation*” because it could mislead the jury to believe that Defendant was actually included.” But the trial court ruled that “Ms. Jeskie *may* testify [that] ‘no meaningful comparison’ could be made to the Defendant’s sample or his lineage” provided that she also explain that “Defendant could not be excluded *or* included as a possible contributor to the sample.” R.1707 (emphasis added). The trial court “caution[ed] the State to ensure its expert provides neutral testimony on this subject so as not to encourage the jury to draw an improper inference from the evidence.” R.1707.

Second, the trial court ruled that admitting both the autosomal STR and Y-STR DNA tests of the bloodstain on the white pillowcase, (item 5.3), was not unfairly prejudicial under rule 403. R.1711. The trial court found that the State had provided a “reasonable explanation” for Defendant’s exclusion on the autosomal STR test and inclusion on the Y-STR test, and that the evidence was relevant to show the “extent of the police investigation and the results of the DNA testing.” R.1710-1711. The trial court explained that “both of these tests, if explained and reported accurately to the jury, are not substantially

prejudicial to the Defendant – especially when reported together.” *Id.* And it noted that Defendant had the opportunity to cross-examine the State’s witnesses “to expose any limitations of Y-STR testing” as well as “argue the significance of both test results during his closing argument.” *Id.*

Finally, the trial court admitted the testimony about the M-Vac autosomal STR DNA test of the white pillowcase (item 25.1). The trial court found that it was “unclear” if Ms. Jeskie’s consideration of data below the analytical threshold was a generally accepted practice within the meaning of rule 702(c). But it found that the State made the alternative threshold showing of reliability under section 702(b) to support admitting Ms. Jeskie’s testimony based on consideration of data below the analytical threshold and to support her conclusion that Defendant was not excluded as a possible contributor to the sample. R.1714. The trial court ruled that Defendant’s objections went to the evidence’s weight, not its reliability. R.1714-1715. Although Defendant’s expert, Dr. Johnson, believed that data below the analytical threshold should never be considered, the trial court explained that “[m]ere disagreement among experts does not make the testimony unreliable.” R.1714. Rather, because “[b]oth experts have reasonable interpretations and applications of the data,” it was “not the court’s role to decide which expert is correct,” but the jury’s. R.1714. The trial court thus ruled that both parties could present

their view of this DNA evidence through expert witnesses, cross-examination, and closing argument. R.1714-1715.

B. The trial court properly exercised its discretion to admit the State's expert testimony about the M-Vac-collected DNA from Uta's white pillowcase (item 25.1) where Defendant's objections went to the evidence's weight, not its admissibility.

Defendant argues that the trial court abused its discretion when it denied his motion to exclude the State's expert testimony about the M-Vac-collected DNA on Uta's white pillowcase (item 25.1). Br.Aplt.45-46. Defendant contends that the trial court should have excluded Ms. Jeskie's testimony about the M-Vac pillow-case sample because it fell below rule 702(b)'s reliability requirement. This is so, he says, because she considered data below the analytical threshold. Br.Aplt.45-46. The trial court correctly ruled that Defendant's complaints went to the evidence's weight, not its admissibility.

A witness may testify as an expert if that person "is qualified as an expert by knowledge, skill, experience, training, or education" and "the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue." Utah R. Evid. 702(a). The expert's methods must either be "generally accepted by the relevant expert community," Utah R. Evid. 702(c), or as relevant here, meet "a threshold showing" that they (1) are reliable, (2) are based upon sufficient

facts or data, and (3) have been reliably applied to the facts.” Utah R. Evid. 702(b).

The threshold showing of reliability under section (b) requires “only a basic foundational showing of indicia of reliability.” Utah R. Evid. 702, Advisory Committee Note. It allows experts “latitude to interpret the facts before them.” *State v. Perea*, 2013 UT 68, ¶39, 322 P.3d 624. The evidence’s proponent thus need not show that the expert’s methodology or conclusion “is indisputably correct.” *Id.* Nor does it need to show that the expert’s methods or conclusion “are free of controversy.” Utah R. Evid. 702, Advisory Committee Note. Rather, “contrary and inconsistent opinions may simultaneously meet the threshold,” *id.*, and “[s]o-called ‘dueling experts’” may testify about their “opposite conclusions” drawn from the underlying evidence. *Perea*, 2013 UT 68, ¶77 n.9.

Thus, admitting the evidence requires only a “threshold showing.” Ultimate reliability—which methods, results, and conclusions are more convincing—remains for the jury to decide. *Gunn Hill Dairy Properties, LLC v. Los Angeles Dept. of Water & Power*, 2012 UT App 20, ¶33, 269 P.3d 980 (emphasis in original). It “is for the factfinder to reconcile—or choose between—the different opinions,” Utah R. Evid. 702, Advisory Committee Note, as it “bears the ultimate responsibility for evaluating the accuracy,

reliability, and weight, of the testimony.” *Gunn Hill Dairy Properties*, 2012 UT App 20, ¶47.

The Utah Supreme Court has consequently cautioned that trial courts “must be careful not to displace the province of the factfinder to *weigh* the evidence,” *State v. Jones*, 2015 UT 19, ¶26, 345 P.3d 1195 (emphasis added), or attempt to “reconcile a conflict between experts.” *Gunn Hill Dairy Properties*, 2012 UT App 20, ¶38-42; *see also Perea*, 2013 UT 68, ¶77 n.9 (explaining that a “court exceeds its role when it bars expert testimony because it prefers one theory or researcher over another”). Instead, “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means” to test admissible evidence, even when it may be considered “‘shaky.’” *Majors v. Owens*, 2015 UT App 306, ¶13, 365 P.3d 165, 169 (quoting *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 596 (1993)).

Here, Defendant disagrees that Ms. Jeskie should have considered data below the analytical threshold when determining whether Defendant was a possible contributor to the sample on the M-Vac-collected DNA on Uta’s pillowcase. Br.Aplt.45-46. According to Defendant’s expert, below-threshold data is unreliable and should never be considered; it is “too easy to confuse” instrument noise for DNA. R.5269,5391. Had the data been ignored, she said,

Defendant would have been definitively excluded as a source of the DNA. R.5315-5319,5334-5335. This is because in a mixed sample where several alleles are present at each loci, Defendant's profile will appear to be in direct inconsistency with the sample profile if one of the sample's alleles does not appear. *Id.*

But the State explained why Ms. Jeskie – an experienced and specially trained forensic DNA analyst – came to a different conclusion. R.8961-8962; State's Ex.467. Defendant's entire autosomal STR profile was present in the M-Vac-collected sample, although three of his alleles were detected below the analytical threshold. R.1509,1513-1514,5421-5422,9093-9096. According to Sorensen Forensics' policy, if an analyst observes data below the analytical threshold that could be DNA based on peak shape, bin position, and allele number, the analyst may amplify the sample again to see if the results are reproduced. If they are, the analyst has more confidence – although she cannot be sure – that the below-threshold peaks may be true DNA and not stochastic effects. R.9954-9955. This information helps to inform the analyst's decision whether to exclude an individual as a source of the DNA – a determination that is categorical. R.5418,5423. In contrast, the determination that an individual is a possible contributor to a sample does not indicate that

he is an “actual” contributor, just that he is “a *possible* contributor.” R.9066 (emphasis added).

Ms. Jeskie performed a “confirmatory replication amplification” event to see if the results reproduced. R.5422. They did. Defendant’s profile was again present, except that one of Defendant’s above-threshold alleles dropped out. R.9093-9096. Using the information from both amplification events, Ms. Jeskie determined that Defendant should not be definitively excluded, but was a possible contributor to the sample. R.5421, 9025-9026, 9066.

Mr. Hellwig explained to the trial court that ignoring relevant below-threshold information can make “an exclusion inaccurate.” R.5418, 5423. He further explained that SWGDAM does not prohibit consideration of below-threshold data; the analytical threshold simply establishes where analysts can “rely” on peaks to “be really truly DNA.” R.5406-5407, 5418. Below the threshold, it “is not *as* reliable.” *Id.* (emphasis added). And Mr. Hellwig confirmed that Sorensen Forensics’ policy was scrutinized and “blessed” by two outside accreditation bodies. R.5453, 9919-9920.

The disagreement between the State and defense experts over the conclusion to be drawn from the underlying DNA evidence is precisely the type of disagreement that rule 702 entrusts the jury to decide. Utah R. Evid.

702, Advisory Committee Note; *see also State v. Bander*, 208 P.3d 1242, 1252 (Wash 2009) (holding that Bander’s challenge to DNA analyst’s consideration of “below- threshold” allele to not exclude Bander went to the evidence’s weight, not admissibility); *People v. Russell*, 2017 WL 2333983U at *2, 5-6 (Cal. App. 2017) (holding that Sorensen Forensics’ method of using confirmatory replication amplifications was reliable and Russell’s objection went to evidence’s weight not its admissibility). The trial court thus properly exercised its discretion to allow the jury to do its traditional job—determine which of two qualified, but competing expert opinions was more convincing. R.1712-1715. *See Jones*, 2015 UT 19, ¶26.

C. Defendant has not proved that all competent counsel would have objected to how the State presented and argued the DNA evidence at trial.

Defendant finally argues that his trial counsel “was constitutionally ineffective” because he did not object when the State “mischaracterized the DNA evidence” through the State’s experts’ testimony and in the prosecutor’s closing argument. Br.Aplt.47-58. He contends that his counsel should have objected to (1) the State’s eliciting expert DNA testimony that, according to him, went beyond what the trial court permitted, and (2) the prosecutor overstating the DNA evidence in closing argument.

To prove that his trial counsel was ineffective, Defendant must prove both that (1) his counsel performed deficiently, and (2) he was prejudiced as a result. See *Strickland v. Washington*, 466 U.S. 668, 687-89, 694 (1984); *State v. Litherland*, 2000 UT 76, ¶19, 12 P.3d 92. This is a “heavy burden,” *Strickland*, 466 U.S. at 687–89, and “never an easy task,” *Harrington v. Richter*, 562 U.S. 86, 105 (2011).

Deficient performance requires proof that trial counsel’s representation “fell below an objective standard of reasonableness.” *Strickland*, 466 U.S. at 687–88. Counsel is always “strongly presumed to have rendered adequate assistance.” *Id.* at 690. To show otherwise, Defendant must prove that “no competent attorney” would have proceeded as his attorney did. *Premo v. Moore*, 562 U.S. 115, 124 (2011). This difficult burden recognizes that there “are countless ways to provide effective assistance in any given case,” and that “[e]ven the best criminal defense attorneys would not defend a particular client in the same way.” *Strickland*, 466 U.S. at 689.

Defendant has not met his burden. Even a cursory review of the pleadings and transcripts confirms that defense counsel vigorously advocated for Defendant from the moment they were hired and subjected the State’s case to the type of adversarial testing the Sixth Amendment demands. See *Strickland*, 466 U.S. at 686 (“The benchmark for judging any claim of

ineffectiveness must be whether counsel's conduct so undermined the proper functioning of the adversarial process that the trial cannot be relied on as having produced a just result.").

And Defendant's argument is predicated on the assumption that Defendant was, or should have been, excluded as the source of the tested DNA. That may be his view, but the State views the evidence differently. After extensive briefing, argument, and an all-day hearing in which the parties' experts explained their conflicting conclusions drawn from the evidence, the trial court allowed both sides to present their own theories of the DNA evidence to the jury. R.1702-1719. That Defendant still disagrees with the State's conclusions does not mean that it "mischaracterized" the evidence.

- 1. Neither the State's experts nor the prosecutor went beyond the trial court's admonition to provide "neutral testimony" about the partial Y-STR DNA profile found under Uta's righthand fingernails (item 2.0), so trial counsel had no reason to object.**

Defendant first argues that his trial counsel should have objected when, according to him, the "State urged the jury to assume the DNA under Uta's fingers was" Defendant's. Br.Aplt.50. He argues that Ms. Jeskie's testimony that nine individuals were excluded from the DNA test went beyond the trial court's order to provide neutral testimony. Br.Aplt.49-50.

And he contends that the prosecutor's statement in closing that he "'would submit to you it was as if Uta was standing in this courtroom and pointing to the defendant as her killer,'" went beyond the trial court's order as well. Br.Aplt.50 (quoting R.10141-10142).

Defendant has not proved that all competent counsel would have objected to Ms. Jeskie's testimony or the inferences the prosecutor drew from the evidence. To begin with, the trial court did not purport to limit the closing argument, only how the testimony came in. As recited in section II.A.5 above, the trial court ruled that "Ms. Jeskie *may* testify 'no meaningful comparison' could be made to the Defendant's sample or his lineage" and the DNA under Uta's fingernails "as long as she explains . . . [that] means Defendant could not be excluded *or* included as a possible contributor to the sample." R.1707 (emphasis added). The trial court "caution[ed] the State to ensure its expert provides neutral testimony on this subject so as not to encourage the jury to draw an improper inference from the evidence." R.1707. But the trial court also explicitly ruled that testimony about exclusion of the nine other individuals on the DNA test was relevant and admissible. R.1705-1706,1708-1709.

Ms. Jeskie complied with the court's ruling. She did not tell the jury that Defendant's profile was the same as the sample's at the five present loci,

but testified only that Defendant “could not be excluded, could not be included. There were no conclusions that could be drawn.” R.9011. The PowerPoint that accompanied her testimony provided that “[d]ue to the low level/degraded nature of the sample, no meaningful comparison could be made [to Defendant].” State’s Ex.382, attached at Add. __. Because Ms. Jeskie’s testimony did not exceed what the trial court permitted, defense counsel had no reason to object. *State v. Kelley*, 2000 UT 41, ¶26, 1 P.3d 546 (“Failure to raise futile objections does not constitute ineffective assistance of counsel.”).

Once this evidence was in, “[c]ounsel for both sides” had “considerable latitude” in how they argued the evidence. Like Defendant’s counsel, the prosecutor had “the right to fully discuss from [his] perspective[] the evidence and all inferences and deductions it support[ed].” *State v. Houston*, 2015 UT 40, ¶76, 353 P.3d 55 (quotation and citation omitted). When this Court reviews an attorney’s decision not to “object to a prosecutor’s statements during closing argument, the question is ‘not whether the prosecutor’s comments were proper, but *whether they were so improper* that counsel’s only defensible choice was to interrupt those comments with an objection.’” *Houston*, 2015 UT 40, ¶76 (quoting *Bussard v. Lockhart*, 32 F.3d 322, 324 (8th Cir. 1994) (emphasis in original)). So to succeed, Defendant must show that the prosecutor’s argument so far departed from the wide latitude

he had to draw inferences from the evidence that no competent counsel could choose not to object. Defendant has not met that burden. *See Strickland*, 466 U.S. at 689; *Kelley*, 2000 UT 41, ¶26.

Indeed, the improper inference that the trial court proscribed, was not, as Defendant contends, that the male DNA under Uta's righthand fingernails could be Defendant's. Rather, the improper inference was that the DNA analysis *concluded* that the DNA was Defendant's. *Id.* The jury was thus free to infer that the cells under Uta's fingernails were Defendant's from facts other than the results of the DNA testing. In fact, the trial court's in limine decision ruled that the fact that there was male DNA under Uta's righthand fingernails was admissible because it had evidentiary value and significance independent of whether DNA testing could prove it was Defendant's. R.1705-1706, 1708-1709. It was relevant to show that:

- Uta had contact with a male close to the time of her death;
- Uta was involved in a struggle;
- a male played a role in Uta's death, as opposed to her death being a suicide or accident;
- the police conducted a thorough investigation of the crime scene and were able to exclude nine potential contributors to the sample;
- every other person who either had a motive to harm Uta or may have touched Uta near her death were excluded;

- on the day that Uta died, Defendant had a scratch on his left eye and face consistent with a human nail; and
- Defendant changed his story about what occurred the night Uta died to account for the possibility that the then-pending DNA analysis would conclude the DNA was his.

In closing argument, the prosecutor accurately explained that there “wasn’t enough [DNA] to say anything about the defendant.” R.10163-10164. And when he said that “it was as if Uta was standing in this courtroom and pointing to the defendant as her killer,” R.10141-10142, he was not asserting that the DNA testing proved the DNA was Defendant’s. Rather, this statement came twenty-three transcript pages into the prosecutor’s summation of *all* the evidence pointing towards Defendant as Uta’s killer. *See* R.10119-10142.

The statement was proper. The prosecutor had no obligation to accept Defendant’s view of the evidence, but had “the right to fully discuss from [his] perspective[] the evidence and all inferences and deductions it supports.” *Houston*, 2015 UT 40, ¶76. The prosecutor drew the supportable inference that the evidence viewed globally pointed the finger at Defendant. Defendant has consequently also failed to prove that the prosecutor’s statement was “*so improper* that counsel’s only defensible choice was to

interrupt those comments with an objection.” *Id.* (citation omitted) (emphasis in original). His claim thus fails. *Strickland*, 466 U.S. at 689.

2. The State followed the trial court’s direction to “accurately” report the results from the Y-STR and autosomal STR DNA tests from the bloodstain on Uta’s white pillowcase (item 5.3), so trial counsel had no reason to object.

Defendant also argues that his trial counsel should have objected when the State let the jury think that Defendant was a possible contributor to the sample from the pillowcase bloodstain (item 5.3), “even though more comprehensive DNA testing *excluded* him.” Br.Aplt.50 (emphasis in original). According to Defendant, Mr. Hellwig’s testimony that he would not “conclude” the Y-STR and autosomal STR tests were “linked” violated the trial court’s order that the tests be “reported together” as well as *State v. Jones*’s requirement that the Y-STR results “be presented in a fair and accurate manner.” Br.Aplt.50-52 (quoting R.1711).

As a threshold matter, this Court should reject this argument because he has not challenged the trial court’s reasons for rejecting it below. *Needham*, 2016 UT App 235, ¶2 (rejecting Needham’s challenge on appeal where he failed to address “the basis of the trial court’s ruling.”).

Before trial, the trial court ruled that evidence of both the autosomal STR and Y-STR DNA tests of the bloodstain on the white pillowcase, (item

5.3), were admissible. R.1711. The trial court found that the State had provided a “reasonable explanation” that Defendant was excluded on the autosomal STR test, but included on the Y-STR test and that “both of these tests, if explained and reported accurately to the jury, are not substantially prejudicial to the Defendant – especially when reported together.” *Id.* It noted that Defendant had the opportunity to cross-examine the State’s witnesses “to expose any limitations of Y-STR testing” as well as “argue the significance of both test results during his closing argument.” *Id.*

Post-verdict, Defendant moved to arrest judgment on the ground that the State violated both the trial court’s in limine order and *State v. Jones*’s requirement that the State accurately present the limitations of Y-STR DNA testing. R.2049-2059. In support, he argued that Mr. Hellwig and Ms. Jeskie “refused to concede that the two tests on the same unknown sample were linked,” but testified that the two DNA tests were “separate events.” R.2057-2058.

The trial court denied Defendant’s motion, ruling that the State had neither violated its in limine order nor *State v. Jones*’s requirements. R.3477-3480. It found that the State “properly explained” and “spoke accurately about the test conclusions,” the “limitations of Y-STR DNA analysis,” and “the differences in generating statistics” between Y-STR and STR testing.

R.3478. The trial court also found that the State “repeatedly clarified that the Y-STR ‘match’ . . . meant a match to anyone in Defendant’s paternal line, and not a match to the unique STR profile of Defendant.” R.3478-3479. In addition, the trial court found that the State’s experts were qualified to testify and “nothing in this court’s pretrial order prevented the State’s expert from holding and testifying to a different expert opinion concerning item 5.3 than defendant’s expert.” R.3479. The trial court thus concluded that the State had “satisfied any requirements of *State v. Jones* [and] this court’s pretrial ruling.” R.3479.

Because Defendant has not challenged these factual findings or legal conclusions on appeal, this Court should not address his claim. *See State v. Hurt*, 2010 UT App 33, ¶16, 227 P.3d 271 (explaining that because Hurt failed “to factually or legally challenge the district court’s ruling,” it would not disturb the district court’s ruling).

But in any event, trial counsel had no reason to object because by the time Mr. Hellwig gave this testimony at trial, the trial court had rejected pre-trial the objections Defendant says his counsel should have re-raised at trial. *See* R.3478-3479. As the trial court noted, the State’s expert did not exceed what the trial court permitted, but “properly explained” and “spoke accurately about the test conclusions,” the “limitations of Y-STR DNA

analysis,” and “the differences in generating statistics” between Y-STR and STR testing. R.3478. Defendant cites no authority for the proposition that all competent counsel are constitutionally obligated to repeated objections that have already been overruled. *See Kelley*, 2000 UT 41, ¶26 (“Failure to raise futile objections does not constitute ineffective assistance of counsel.”). This claim thus fails as well.

- 3. The trial court ruled that both parties could present their interpretation of the M-Vac autosomal STR DNA test of the white pillowcase (item 25.1) through expert testimony, cross-examination, and closing argument; trial counsel thus had no reason to object when the State did what the trial court permitted it to do.**

Defendant next argues that his trial counsel should have objected when the prosecutor elicited testimony that Defendant’s “‘unique’” autosomal STR profile was “‘included as a possible contributor to the mixture’” of the M-Vac-collected DNA on Uta’s white pillowcase (item 25.1). Br.Aplt.53 (quoting R.9099). According to Defendant, this testimony “misrepresented” the evidence because Defendant’s “‘unique’ STR profile was not found in his sample – his alleles were not observed at reliable levels at four loci, meaning he was excluded.” *Id.*

A competent attorney could choose not to object to this testimony because it fell sufficiently into what the trial court ruled was reliable. As discussed, Defendant argued pre-trial that Defendant should have been

excluded as a source of the DNA because three of his alleles were observed below the analytical threshold and one had dropped out on the second amplification event. R.1355-1358. But the State's experts disagreed that Defendant should be categorically excluded as a contributor to the sample. Mr. Hellwig explained that the analytical threshold was not a floor, but a ceiling, and that ignoring relevant information could result in a false exclusion. R.5406-5407, 5418, 5423. Based on all the information before it, Sorensen Forensics determined that Defendant was a "possible" contributor to the sample where his alleles were present at all 16 loci, even though three were observed below threshold. R.9025-9026, 9066.

The trial court declined to exclude this evidence. It determined that because "[b]oth experts have reasonable interpretations and applications of the data," it was "not the court's role to decide which expert is correct," but the jury's. R.1714. The trial court therefore ruled that both parties could present their contrary conclusions drawn from this DNA evidence through expert witnesses, cross-examination, and closing argument. R.1714-1715.

This is what the parties did. The State presented its "reasonable interpretations" of the DNA evidence to the jury, as did Defendant. R.1714. Because the trial court explicitly permitted the State to present this theory to the jury, any objection counsel would have made would have been futile.

Kelley, 2000 UT 41, ¶26, 1 P.3d 546 (“Failure to raise futile objections does not constitute ineffective assistance of counsel.”).

4. The State accurately presented the DNA evidence from the bloody handprint and glove swipe on Uta’s comforter (item 13.4), so trial counsel had no reason to object.

Finally, Defendant argues that his counsel should have objected to the testimony about the M-Vac-collected DNA from the bloody handprint and glove swipe on Uta’s comforter (item 13.4). He contends that the State falsely presented the profile “as being unique” to Defendant, because, according to him, this “DNA is most likely from [Defendant]’s children, not [Defendant].” Br.Aplt.54. He further claims that the prosecutor “false[ly]” stated in closing argument that the DNA was collected from “pinpoint location” because, he claims, the M-Vac process “gathers from deep layers in areas of the fabric, not from a pinpoint location.” Br.Aplt.55.

Ms. Jeskie tested five areas of Uta’s comforter. R.9016-9021. Four of the tests either excluded Defendant or were inconclusive for male DNA. *Id.* The fifth autosomal STR test, however, included Defendant as a possible contributor. R.9020; State’s Ex.173. In this test, Ms. Jeskie used the M-Vac process to test the bloodstain labeled 3D. R.5435, 9020, 9055-9056; State’s Ex.173. Bloodstain 3D was a bloody left handprint with a cloth transfer swipe through it, possibly made by a glove. R.9020, 13515-13516, 13559; State’s

Ex.173. All of Defendant's autosomal STR alleles—making up his complete and unique STR profile—were accounted for in the sample. R.9020-9021, 9063, 9065, 9099.

Defendant moved to exclude this evidence but later withdrew his challenge. R.5610. Instead, he argued at trial through expert testimony and closing argument that the autosomal STR profile was likely really his children's DNA because, according to him, if all four of his children's DNA were present, it would account for all of Defendant's alleles and Defendant's autosomal STR profile would appear even if he never contributed any DNA to the sample. R.10240, 15266-15267, 1521-15282. And this was also the case for the autosomal STR profile on the white pillowcase (item 25.1), he argued. The State disagreed. In order for Defendant's profile to appear, the State argued, all four children would have to donate the same amount of DNA at the same spot. Pelle and Malkie, however, testified that they never lay on Uta's bed. And Defendant's STR profile was located only at the glove-swipe spot on the comforter—a pinpoint location—not on the other four tested locations of the comforter. The simpler explanation, the State argued, was that Defendant touched the pillowcase and his gloved hand swiped through Uta's bloody handprint on the comforter.

Again, Defendant's difference of opinion to the conclusions to be drawn from this DNA test does not make the State's view a "mischaracterization" or a false statement. Br.Aplt.54-55. Indeed, simply because the M-Vac process "gathers deep layers," does not mean that the spot processed was not "pinpoint." Br.Aplt.55. For this test, Ms. Jeskie used the M-Vac only on the spot with the bloodstained handprint and the glove swipe going through it—this is a pinpoint location regardless of how deep the vacuum went. R.5435, 9020, 9055-9056. The prosecutor's statements were proper.

In sum, the prosecutor had "the right to fully discuss from [his] perspective[] the evidence and all inferences and deductions it supports." *Houston*, 2015 UT 40, ¶76 (quotation and citation omitted). Because the prosecutor's statements in closing argument were proper, Defendant cannot show—as he must—that the they were "*so improper* that counsel's only defensible choice was to interrupt those comments with an objection." *Houston*, 2015 UT 40, ¶76 (emphasis in original); *State v. Creviston*, 646 P.2d 750, 754 (Utah 1982) (explaining that prosecutor may fairly respond to arguments made by defense counsel). Defendant's final deficiency claim likewise fails.

C. Defendant cannot show prejudice on his DNA claims because he would have been convicted even without the DNA evidence.

Defendant's DNA claims also fail because he cannot show prejudice. Prejudice requires Defendant to affirmatively prove with nonspeculative evidence that without the alleged error there is a reasonable probability that the outcome of the trial would have been different. *Strickland*, 466 U.S. at 694. A "reasonable probability" is one "sufficient to undermine confidence in the outcome." *Id.* In other words, "[t]he likelihood of a different result must be *substantial*, not just conceivable." *Richter*, 562 U.S. at 112 (emphasis added) (cleaned up).

Defendant has not proved that in light of all the evidence and the jury instructions, excluding the DNA testimony or argument, would have made a more favorable outcome reasonably likely. Indeed, the DNA evidence in this case "played a relatively small probative role in the overall quantum of evidence that was presented to the jury." R.3479. The DNA evidence was not "critical or indispensable evidence in support of the State's case" and did not definitively prove that Defendant was present at the crime scene. *Id.* Rather, the DNA evidence was probative because, as the trial court put it, it "did not undermine the State's theory of the case." *Id.* Undoubtedly, the DNA evidence's greatest import was not the actual test results or their

interpretation. Rather, its importance was that after the DNA analysis was in process, Defendant changed his account of the evening to create improbable explanations why his DNA may have been found at the crime scene and under Uta's fingernails.

Indeed, all the other evidence proved that Defendant was the only person with the opportunity, means, and motive to kill Uta. He had the medical knowledge necessary to select the drug that would incapacitate her, and he knew how to forcefully administer it to her. He had obtained a prescription for the strongest possible dosage of Xanax. He knew where the spare key was hidden to access Uta's home. He knew Uta's schedule and when she would be home alone. Defendant was not home at the time Uta was killed and he lied about his whereabouts. That morning, he arrived late to work and took his car to be washed even though patients were waiting for him. Defendant had not changed his clothes from the day before, he had a scratch on his left eye and cheek consistent with a human nail, and his eyeglasses were broken on the left side. When police questioned Defendant that evening, he did not ask why they wanted to talk to him. And he told them that he could not remember almost everything he had done the night before. Yet months later, he gave a detailed account of that night in an unbelievable story that was not only inconsistent with what he had

previously told the police, but that would potentially account for the pending DNA tests. And finally, Defendant was the only person who hated Uta, the woman whom he believed had ruined his life and had recently filed to modify custody. He had expressed to others his wish that Uta were dead and after Uta died, he told his son that it was better that she was gone.

In addition, trial counsel was able to minimize the impact of the DNA evidence anyway. Counsel vigorously cross-examined Ms. Jeskie and Mr. Hellwig and presented his own expert, Dr. Johnson, to testify. Dr. Johnson not only criticized Sorensen Forensics' methods and conclusions, but she also testified that, in her opinion, Defendant was definitively excluded as a contributor to the M-Vac-collected DNA on the white pillowcase and that the appearance of Defendant's autosomal STR DNA profile on the pillowcase and comforter was likely actually from his children. R.15276-15279, 15281-15282. Through cross-examination, both Ms. Jeskie and Mr. Hellwig admitted that they could not be sure that data below the analytical threshold was true DNA. And Dr. Johnson not only criticized Sorensen Forensics' methods and conclusions in including Defendant as a possible contributor to the sample, but she also testified that, in her opinion, Defendant was definitively excluded as a contributor to the sample. R.15276-15279,15281-15282. Dr. Johnson further testified that if all four of Defendant's children's DNA were

present, it would account for all of Defendant's alleles, and his autosomal STR profile would appear even if his DNA were not actually present. And finally, trial counsel attacked the DNA evidence in his closing argument, arguing that Sorensen Forensics' methods were unreliable, and its conclusions were wrong. The jury was thus well-informed of Defendant's theory of the DNA evidence and knew that this DNA evidence was not conclusive.

And finally, trial counsel attacked the DNA evidence in his closing argument, arguing that Sorensen Forensics' methods were unreliable, and its conclusions were wrong. The jury was thus well-informed of Defendant's theory of the DNA evidence and knew that the DNA evidence was not conclusive in this case.

Defendant, therefore, has failed to meet his burden. There is no likelihood a different result. *Richter*, 562 U.S. at 112. Even without the DNA evidence, the jury would have convicted.

CONCLUSION

For the foregoing reasons, the Court should affirm.

Respectfully submitted on November 14, 2018.

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CERTIFICATE OF COMPLIANCE

I certify that in compliance with rule 24(g), Utah Rules of Appellate Procedure, this brief contains 18, 374 words, excluding the table of contents, table of authorities, addenda, and certificate of counsel. I also certify that in compliance with rule 21(g), Utah Rules of Appellate Procedure, this brief, including the addenda:

☒ does not contain private, controlled, protected, safeguarded, sealed, juvenile court legal, juvenile court social, or any other information to which the right of public access is restricted by statute, rule, order, or case law (non-public information).

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/s/ Tera J. Peterson

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CERTIFICATE OF SERVICE

I certify that on January 28, 2019, the Brief of Appellee was served upon appellant's counsel of record by ☒ mail ☐ email ☐ hand-delivery at:

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/s/ Melanie Kendrick

Addenda

Addenda

Addendum A

Utah Code Annotated § 76-5-203 (West 2018)

(1) As used in this section, "predicate offense" means:

- (a) a clandestine drug lab violation under Section 58-37d-4 or 58-37d-5;
- (b) child abuse, under Subsection 76-5-109(2)(a), when the victim is younger than 18 years of age;
- (c) kidnapping under Section 76-5-301;
- (d) child kidnapping under Section 76-5-301.1;
- (e) aggravated kidnapping under Section 76-5-302;
- (f) rape of a child under Section 76-5-402.1;
- (g) object rape of a child under Section 76-5-402.3;
- (h) sodomy upon a child under Section 76-5-403.1;
- (i) forcible sexual abuse under Section 76-5-404;
- (j) sexual abuse of a child or aggravated sexual abuse of a child under Section 76-5-404.1;
- (k) rape under Section 76-5-402;
- (l) object rape under Section 76-5-402.2;
- (m) forcible sodomy under Section 76-5-403;
- (n) aggravated sexual assault under Section 76-5-405;
- (o) arson under Section 76-6-102;
- (p) aggravated arson under Section 76-6-103;
- (q) burglary under Section 76-6-202;
- (r) aggravated burglary under Section 76-6-203;
- (s) robbery under Section 76-6-301;
- (t) aggravated robbery under Section 76-6-302;
- (u) escape or aggravated escape under Section 76-8-309; or
- (v) a felony violation of Section 76-10-508 or 76-10-508.1 regarding discharge of a firearm or dangerous weapon.

(2) Criminal homicide constitutes murder if:

- (a) the actor intentionally or knowingly causes the death of another;
- (b) intending to cause serious bodily injury to another, the actor commits an act clearly dangerous to human life that causes the death of another;
- (c) acting under circumstances evidencing a depraved indifference to human life, the actor knowingly engages in conduct which creates a grave risk of death to another and thereby causes the death of another;

- (d)(i) the actor is engaged in the commission, attempted commission, or immediate flight from the commission or attempted commission of any predicate offense, or is a party to the predicate offense;
- (ii) a person other than a party as defined in Section 76-2-202 is killed in the course of the commission, attempted commission, or immediate flight from the commission or attempted commission of any predicate offense; and
- (iii) the actor acted with the intent required as an element of the predicate offense;
- (e) the actor recklessly causes the death of a peace officer or military service member in uniform while in the commission or attempted commission of:
 - (i) an assault against a peace officer under Section 76-5-102.4;
 - (ii) interference with a peace officer while making a lawful arrest under Section 76-8-305 if the actor uses force against a peace officer; or
 - (iii) an assault against a military service member in uniform under Section 76-5-102.4;
- (f) commits a homicide which would be aggravated murder, but the offense is reduced pursuant to Subsection 76-5-202(4); or
- (g) the actor commits aggravated murder, but special mitigation is established under Section 76-5-205.5.

(3)(a) Murder is a first degree felony.

(b) A person who is convicted of murder shall be sentenced to imprisonment for an indeterminate term of not less than 15 years and which may be for life.

(4)(a) It is an affirmative defense to a charge of murder or attempted murder that the defendant caused the death of another or attempted to cause the death of another under a reasonable belief that the circumstances provided a legal justification or excuse for the conduct although the conduct was not legally justifiable or excusable under the existing circumstances.

(b) The reasonable belief of the actor under Subsection (4)(a) shall be determined from the viewpoint of a reasonable person under the then existing circumstances.

(c) This affirmative defense reduces charges only from:

- (i) murder to manslaughter; and
- (ii) attempted murder to attempted manslaughter.

(5)(a) Any predicate offense described in Subsection (1) that constitutes a separate offense does not merge with the crime of murder.

(b) A person who is convicted of murder, based on a predicate offense described in Subsection (1) that constitutes a separate offense, may also be convicted of, and punished for, the separate offense.

Utah R. Crim. P. 23. Arrest of Judgment

At any time prior to the imposition of sentence, the court upon its own initiative may, or upon motion of a defendant shall, arrest judgment if the facts proved or admitted do not constitute a public offense, or the defendant is mentally ill, or there is other good cause for the arrest of judgment. Upon arresting judgment the court may, unless a judgment of acquittal of the offense charged is entered or jeopardy has attached, order a commitment until the defendant is charged anew or retried, or may enter any other order as may be just and proper under the circumstances.

Utah R. Evid. Rule 702. Testimony by Experts

(a) Subject to the limitations in subsection (b), 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.

(b) Scientific, technical, or other specialized knowledge may serve as the basis for expert testimony if the scientific, technical, or other principles or methods underlying the testimony meet a threshold showing that they (i) are reliable, (ii) are based upon sufficient facts or data, and (iii) have been reliably applied to the facts of the case.

(c) The threshold showing required by subparagraph (b) is satisfied if the principles or methods on which such knowledge is based, including the sufficiency of facts or data and the manner of their application to the facts of the case, are generally accepted by the relevant expert community.

Addendum B

The Order of the Court is stated below:

Dated: November 25, 2015
03:01:04 PM

/s/ James Blanch
District Court Judge



SIM GILL, Bar No. 6389
District Attorney for Salt Lake County
MATTHEW B. JANZEN, Bar No. 8219
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IN THE THIRD DISTRICT COURT, SALT LAKE DEPARTMENT
IN AND FOR THE COUNTY OF SALT LAKE, STATE OF UTAH

STATE OF UTAH,
Plaintiff,

vs.

JOHNNY BRICKMAN WALL,
Defendant.

**ORDER DENYING MOTION FOR
ARREST OF JUDGMENT (EVIDENCE
NOT CONSTITUTE OFFENSE)**

Case No. 131903972

Honorable James T. Blanch

WHEREAS, on March 12, 2015, Defendant was found guilty of Murder by a jury of his peers; and
WHEREAS, on May 26, 2015, Defendant filed a Motion and Memorandum for Arrest of Judgment
(Evidence not Constitute Offense); on June 24, 2015, the State file its Memorandum in Opposition;
and on July 6, 2015, Defendant filed his Reply; and

WHEREAS, on July 8, 2015 oral argument was held were this Court carefully analyzed and
articulated findings of fact and conclusions of law orally;

NOW THEREFORE, this Court hereby incorporates those oral findings of fact and

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conclusions of law as part of this ruling and further expresses the following written rulings:

1. Defendant's Motion for Arrest of Judgment (Evidence not Constitute Offense) is denied.
2. There was a large quantum of evidence, including expert testimony, that the jury considered over this 4 week trial (13 days in total). When the totality of the evidence is viewed in the light most favorable to the jury verdict, the evidence is not inconclusive or inherently improbable such that reasonable minds must have entertained a reasonable doubt. The evidence entitled the jury to reach a reasonable conclusion beyond a reasonable doubt that a homicide occurred and this Defendant committed it.
3. The court need not disregard evidence implicating Defendant as the perpetrator of the offense charged when assessing whether there was sufficient evidence to support the jury's conclusion that the victim was murdered, rather than committed suicide. There is not a hermetic division between the question of whether or not this was a homicide and the question of whether or not Defendant was the individual who committed the homicide. The jury was permitted to consider evidence that the Defendant was the perpetrator of the crime charged in deciding whether the death at issue in this case was a murder or a suicide. The court rejects Defendant's contention that the court must ignore evidence implicating Defendant as the guilty party when initially assessing whether there was sufficient evidence to establish that the victim was murdered rather than committed suicide.
4. Strong circumstantial evidence was presented at trial of motive, opportunity, inexplicable injuries to Defendant, Defendant's behaviors before and after the incident, and the changing of his story between what he told the police versus what he said in his deposition.
5. There were several expert witnesses who testified about the manner in which the Alprazolam

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was introduced into the victim that the jury was entitled to find credible and believe. There was also expert and fact testimony concerning blood evidence at the scene of the crime, the nature of the victim's injuries, and other aspects of the facts and circumstances of the victim's death to permit the jury to conclude that she was murdered and that Defendant was the one who committed the murder. In light of the all of the above, and in light of the entirety of the record in this case, ample evidence was submitted to jury to support its verdict of guilty.

Approved as to form:

/s/ G. Fred Metos USB#2250

Attorney for Defendant

Signed by Matthew B. Janzen with permission of G. Fred Metos

—ELECTRONIC SIGNATURE AT TOP OF THE DOCUMENT—

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Addendum C

A

**IN THE THIRD JUDICIAL DISTRICT COURT
IN AND FOR SALT LAKE COUNTY, STATE OF UTAH**

FILED DISTRICT COURT
Third Judicial District

FEB - 9 2015
SALT LAKE COUNTY

Deputy Clerk

STATE OF UTAH,

Plaintiff,

vs.

JOHNNY BRICKMAN WALL,

Defendant.

**MEMORANDUM DECISION AND
ORDER ON DEFENDANT'S MOTIONS
IN LIMINE RE: DNA EVIDENCE**

Case Number 131903972

Judge James T. Blanch

THE MATTER IS BEFORE THE COURT on several motions in limine regarding DNA evidence filed by Defendant: Motion in Limine (Lack of Statistical Evidence for DNA Test Results), which was filed on May 14, 2014; Motion in Limine (Analysis of the DNA Sample from the Pillowcase), which was filed on September 17, 2014; Motion in Limine: Inconclusive DNA Test Results, which was filed on September 17, 2014; and Motion in Limine: Low Template DNA Testing, which was filed on September 19, 2014.

The court held an evidentiary hearing on November 10, 2014, during which Dr. Elizabeth Johnson and Mr. Daniel Hellwig testified. Following the hearing, Defendant submitted three more motions, clarifying the outstanding issues in dispute: Motion in Limine (Sorenson Item 5.3), which was filed November 12, 2014; Motion in Limine (Sorenson Item 13.4), which was filed on November 12, 2014; and Motion in Limine (Inaccurate Statistical Evidence for DNA Mixtures), which was filed on November 12, 2014. The State filed a combined opposition to the motions on December 1, 2014, and Defendant filed a combined reply on December 29, 2014.

The court held oral arguments on January 6, 2015, during which the parties made clear they had narrowed the matters in dispute down to four issues: the admissibility of Sorenson Item

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2.0, the admissibility of Sorenson Item 5.3, the admissibility of Sorenson Item 25.1, and the effect of Sorenson's failure to take into account kinship relations during the testing of the DNA.

At the hearing, the court orally ruled on the admissibility of Sorenson Items 2.0 and 5.3. In addition, the court orally ruled on the issues regarding kinship relations. The court indicated it would take the issue of the admissibility of Item 25.1 under advisement. The court also indicated it would issue a written ruling and order at a later time.

Following the oral argument, Defendant filed a supplemental memorandum on January 12, 2015, regarding the admissibility of Item 25.1. The State filed a supplemental memorandum in opposition on January 14, 2015. On January 23, 2015, the parties met for an evidentiary hearing on other matters, during which the court orally informed the parties of its ruling on Sorenson Item 25.1. The court again indicated it would issue a written decision at a later date.

The Court now enters its written Memorandum Decision and Order on the DNA issues.

1. Sorenson Item 2.0: Right Fingernail Clippings

At the preliminary hearing, the State's DNA expert, Ms. Jeskie, testified she performed a Y-STR test on .01 nanograms of DNA obtained from 3 male human cells found under the right fingernail of the alleged victim in the case. Because of the small sample of DNA available, Ms. Jeskie was only able to analyze the alleles on 5 loci in the sample, all of which matched the alleles in Defendant's sample. However, in order to make a reliable conclusion regarding whether a person is a possible contributor to a DNA sample, a DNA analyst must be able to extract and match data from at least 7 loci. Due to the low number of alleles in the sample, Ms. Jeskie concluded "no meaningful comparison" could be made to the Defendant's DNA or his lineage. Even so, Ms. Jeskie was able to exclude 9 individual males as possible contributors to

the sample. At the evidentiary hearing, the State's witness, Mr. Daniel Hellwig, explained and confirmed Ms. Jeskie's conclusions regarding Sorenson Item 2.0.

Defendant makes three challenges to this evidence: First, the evidence should be excluded under rule 702 because the test sample was too small to analyze properly. Second, the evidence should be excluded under rules 702 and 403 because Ms. Jeskie's conclusion regarding the evidence is inaccurate. Third, the evidence should be excluded under rules 401 and 403 because it is not relevant and the prejudicial effect substantially outweighs its probative value.

a. Sample Size

Defendant first moves to exclude the DNA results obtained from the alleged victim's right fingernail clippings under rule 702 because the sample used was too small to obtain a reliable inclusionary result. Specifically, Defendant challenges the evidence because there is too little data to create a statistical probability that the DNA belongs to Defendant. In addition, Defendant contends some of the alleles may have dropped out of the sample, which he argues makes it more difficult to exclude individuals as possible contributors and makes any conclusion about the evidence unreliable.

Under Rule 702, "the trial court performs an important gatekeeping function, intended to ensure that only reliable expert testimony will be presented to the jury." *Gunn Hill Dairy Properties, LLC v. Los Angeles Dept. of Water & Power*, 2012 UT App 20, ¶ 31. In order to perform this gatekeeping function, the court must make several determinations: First, the court must determine whether the proposed witness is qualified to testify as an expert due to his or her "knowledge, skill, experience, training, or education" and whether the testimony being offered will "assist the trier of fact to understand the evidence or to determine a fact in issue." Second, the court must determine whether the testimony meets a "threshold showing" of reliability. Utah

R. Evid. 702. A party may make a threshold showing that expert testimony is reliable in one of two ways: First, a party may show that the “principles or methods underlying the testimony . . . (i) are reliable, (ii) are based upon sufficient facts or data, and (iii) have been reliably applied to the facts of the case.” Utah R. Evid. 702(b). Second, a party may show that the underlying principles or methods “are generally accepted by the relevant expert community.” *Id.* Importantly, this threshold showing “marks only the *beginning* of a reliability determination. It is up to the trier of fact to determine the ultimate reliability of the evidence.” *Gunn Hill*, 2012 UT App 20, ¶ 33; *see also State v. Jones*, 2015 UT 19, ¶ 26 (“[Courts] must be careful not to displace the province of the factfinder to weigh the evidence.”).

First, no challenge has been made to Ms. Jeskie’s qualifications as an expert in this case, and the court finds that based upon her experience and training, Ms. Jeskie is qualified under rule 702(a) to testify as an expert regarding DNA analysis. Ms. Jeskie has a bachelor’s of science degree in molecular biology and has worked as a forensic DNA analyst for over twelve years. She is currently a lead forensic DNA analyst at Sorenson Forensics.

In addition, no challenge has been made to Mr. Hellwig’s qualifications to testify as an expert on DNA analysis. Mr. Hellwig has a bachelor’s degree in biology and chemistry and a master’s degree in forensic science. He has been either teaching forensic science or working as a DNA forensic analyst since 2002 and is currently the lab director of Sorenson Forensics Laboratory. Based upon Mr. Hellwig’s training and experience, the court concludes he is qualified under rule 702(a) to testify as an expert regarding DNA analysis.

Second, the court finds the testimony will help the jury determine a fact at issue in this case. The evidence shows low-level male DNA was found under the alleged victim’s fingernails, indicating the alleged victim had contact with a male at a time close to her death. Although the

sample size was too small to produce any inclusionary data, the State was able to use the DNA to exclude nine individual males as possible contributors who may have had contact with the alleged victim's body before or after her death. This evidence may help the jury determine whether a male individual played a role in the alleged victim's death, as opposed to the death being a suicide or accident, as posited by Defendant. Further, the evidence may also help the jury decide whether various male individuals who had relevant contact with the alleged victim or her body can be excluded as having played a role in her death.

Finally, the evidence meets the requirements of rule 702(c) because the methodology used to analyze the DNA, including the sufficiency of facts or data and their manner of application to the facts of the case, are generally accepted by the relevant expert community. Importantly, Defendant has not challenged the underlying scientific methodology by which Sorenson performed the Y-STR testing and analyzed the DNA, and the court concludes Sorensen's methodology meets the requirements of rule 702. Sorenson has been accredited by at least two accrediting institutions and follows the guidelines implemented by the Scientific Working Group on DNA Analysis Methods (SWGDM), a nationally recognized organization and authority on forensic DNA analysis.

In addition, the validity and admissibility of Y-STR test results used for exclusionary purposes has been upheld by our Utah Supreme Court and other courts. *See State v. Maestas*, 2012 UT 46, ¶ 132 ("In this jurisdiction, we have previously stated that analysis serving to exclude particular individuals can be inherently reliable."). Indeed, our Utah Supreme Court has recently reaffirmed that "scientific and forensic journals as well as other courts have recognized Y-STR DNA testing as reliable for excluding individuals as the source of an unknown sample." *State v. Jones*, 2015 UT 19, ¶ 27.

Moreover, Defendant's own expert, Dr. Johnson, testified at the evidentiary hearing on the DNA motions that each of the alleles in the sample was above the analytic threshold for Y-STR testing¹ and that this amount of DNA, although small, is suitable to test for exclusionary purposes—the purposes for which the State intends to introduce the evidence.

b. Inaccurate Conclusion

Second, Defendant moves to exclude Ms. Jeskie's conclusion that Defendant's DNA profile was "not excluded" from the sample. Defendant's motion is made pursuant to both rule 702 and rule 403 of the Utah Rules of Evidence.

The court agrees the State's witness should not be allowed to indicate Defendant's DNA profile was "not excluded" from the sample without further explanation. Both the State's and Defendant's witnesses testified at the evidentiary hearing that the phrase "not excluded" necessarily implies a DNA sample is included, which does not accurately reflect the test results. Therefore, the testimony, without further explanation, is unreliable under rule 702 and significantly prejudicial under rule 403 because it may be misleading and confusing to the jury.

However, the court concludes that Ms. Jeskie may testify "no meaningful comparison" could be made to the Defendant's sample or his lineage as long as she explains the meaning of "no meaningful comparison." According to both parties' experts who testified at the evidentiary hearing on the DNA motions, "no meaningful comparison" means Defendant could not be excluded or included as a possible contributor to the sample. The court cautions the State to ensure its expert provides neutral testimony on this subject so as not to encourage the jury to draw an improper inference from the evidence. If the questioning of the witness and her answers raise concerns for the court or the parties, in order to cure the prejudicial effect of the testimony, the court may consider offering an instruction to the jury that the DNA test results for Item 2.0

¹ No stochastic threshold exists for Y-STR testing.

may only be used for exclusionary purposes and the jury is not to use the test results as evidence of Defendant's guilt.

Finally, the State's witness may explain the process of degradation of a DNA sample and the possible contributing factors that may have affected this particular sample of DNA. This testimony is admissible pursuant to rule 702(c) because it is generally accepted in the relevant expert community.

c. Relevance

Third, Defendant challenges the admissibility of the evidence under rules 401 and 403 because the conclusion "no meaningful comparison" is a meaningless conclusion and is not probative of Defendant's guilt. In addition, Defendant contends unless there is some other evidence any of the nine excluded individuals had contact with the alleged victim's fingernails, then the conclusion they were excluded from the sample is not relevant. Finally, Defendant contends the jury is likely to draw a negative inference from the evidence; therefore, the minimal probative value of the evidence is substantially outweighed by the danger of unfair prejudice.

The court concludes the evidence is admissible under rules 401 and 403 because it is relevant and the probative value of the evidence is not substantially outweighed by the danger of unfair prejudice. As explained above, the male DNA under the alleged victim's fingernail shows the alleged victim had contact with a male individual sometime prior to her death. This is particularly relevant in connection with the State's evidence that on the day the alleged victim died, Defendant had a scratch on his face consistent with a human nail and made inconsistent statements regarding the scratch.

In addition, the evidence is relevant to show the police conducted a thorough investigation of the crime scene and were able to exclude nine potential contributors to the

sample. Seven of the nine individuals excluded by the State either had contact with the alleged victim's body after her death or were close enough in proximity to her body after her death that they may have had contact. The remaining two individuals, Nils Abramson and Jack Skalicky, were both potential suspects in the investigation at some point. Mr. Abramson was the alleged victim's boyfriend, and Mr. Skalicky stood to inherit the alleged victim's home as part of her will. In addition, as part of the police investigation, the police compared the DNA sample to Defendant's DNA and his lineage, and the court concludes the State is allowed to present those results to the jury.

Although Defendant's concern that the jury may infer the test results indicate the DNA belongs to the Defendant is well-taken, the court concludes the potential inference is not unfairly prejudicial and does not outweigh the evidence's probative value. As explained by the Utah Supreme Court, "where expert testimony is presented accurately and where the evidence's scientific limitations are properly described to the jury, . . . the testimony is [not] unfairly prejudicial to the defendant or likely to confuse the jury." *Jones*, 2015 UT 19, ¶ 30. However, our Supreme Court has also cautioned prosecutors to "properly and accurately present Y-STR DNA evidence" due to its persuasive value in the eyes of the jury. *Id.* ¶ 34. Therefore, as indicated above, if the State or its witnesses encourage the inference that Defendant is included as a possible contributor to sample 2.0 based upon the test results, the court will consider offering a curative instruction to the jury.

Accordingly, the court DENIES Defendant's motion to exclude evidence of Sorenson Item 2.0.

2. Sorenson Item 5.3: Red Brown Stains on White Pillow

According to the testimony presented at the evidentiary hearing, Sorenson Forensics conducted both a Y-STR and STR test on the red brown stains found on the alleged victim's pillow. Mr. Hellwig testified that because there was "too much female DNA that was – in comparison to the male DNA," his lab performed the Y-STR testing first. *See Evid. Hr'g Trans.* at 193-94, 199, 222. The Y-STR came back with both a major and a minor profile. The major profile matched the victim's boyfriend and his paternal line. The minor profile matched the Defendant's sample and his paternal line. The STR testing came back with a mixture of at least three contributors to the sample, with the victim's sample matching the major profile. The victim's boyfriend matched one of the minor profiles. Both Liam and Pelle Wall, the Defendant's sons, were not excluded as contributors to the sample; however, the Defendant was excluded as a possible contributor to the sample.

Defendant alleges the test results of Item 5.3 are not relevant and are prejudicial to him. He contends that because the STR testing "conclusively" excluded Defendant, *see Dr. Johnson's Testimony, Hr'g. Trans.*, at 144, and because the STR test did *not* exclude Defendant's sons, then the results of the Y-STR must refer only to Defendant's sons and not to Defendant himself. Defendant asserts this information will mislead and confuse the jury if both test results are presented.

In opposition, the State argues Defendant's profile was excluded by the STR testing "because his alleles were not all present at the threshold levels." *State's Memo. Opp.* at 14. Furthermore, the State contends the major sample in the STR "can and did overwhelm the minor male profiles." *State's Memo. in Opp.* at 15. Therefore, according to the State, there is a reasonable explanation for the exclusion of the Defendant by the STR but the inclusion of the

Defendant by the Y-STR. Furthermore, the State argues the evidence is relevant for historical purposes to show the extent of the police investigation and the results of the DNA testing.

The court concludes the test results from both the STR and the Y-STR testing are relevant under rule 401. The results show there were red spots that could be blood found at the crime scene and the investigators tested the sample to determine its source. The testing shows the blood belonged to the alleged victim and at least two other males contributed to the sample – indicating there were at least two other males present at the crime scene. One of those males was the alleged victim’s boyfriend. The other is somebody in the Defendant’s paternal line. The results also show the police did a thorough investigation of the crime scene.

The court also concludes the evidence is not unfairly prejudicial under rule 403. The test results show Defendant was excluded by the STR testing but his paternal lineage was not excluded by the Y-STR testing. Mr. Hellwig concluded “it was not an incorrect statement to exclude from the . . . profile that was developed from the autosomal STRs and not exclude from the profile that was developed from the Y-STRs . . . [b]ecause they are different amplifications of the same sample.” Evid. Hr’g Trans. at 222. The results of both of these tests, if explained and reported accurately to the jury, are not substantially prejudicial to the Defendant—especially when reported together. Defendant will have an opportunity to cross-examine the witnesses and expose any limitations of the Y-STR testing. *See State v. Jones*, 2015 UT 19, ¶ 33 (“[A]ny risk of confusion or unfair prejudice are minimized where . . . the jury hears testimony from the experts of the various limitations of Y-STR DNA.”). In addition, Defendant will also be able to argue the significance of both test results during his closing argument.

Accordingly, the court DENIES Defendant’s motion to exclude evidence of Sorenson Item 5.3.

3. Sorenson Item 25.1: Pillowcase

Using the M-Vac process, Sorenson collected data from the white pillowcase surrounding the red stains analyzed as Item 5.3. Sorenson obtained a mixture of at least three individuals from the sample. After performing two amplifications on the sample, Sorenson determined the alleged victim, her boyfriend, and Defendant were all included as possible contributors with statistical probabilities.

Defendant makes two challenges to the evidence: first, Defendant should be excluded as a possible contributor because, according to Defendant, some of his alleles were missing from the sample; and second, the statistical probability calculated by Sorenson is unreliable because Sorenson used alleles with peaks below the stochastic threshold.

a. Missing Alleles

Exhibit 15, the electropherogram, and exhibit 16, the allele chart, show that at four separate loci, four of Defendant's alleles do not show up in the State's sample; namely, D8 does not contain a 17 allele; D7 does not contain a 10 allele; D2 does not contain a 25 allele, and FGA does not contain a 26 allele. Even though four of Defendant's alleles did not show up in the sample, Sorenson Forensics did not exclude Defendant as a possible contributor. Defendant contends that because the data indicates the sample is missing four of Defendant's alleles, Sorenson's conclusion is unreliable and does not meet the requirements of rule 702.

Sorenson performed two amplifications on sample 25.1. Each amplification included a 10-second injection. According to Sorenson's policy, the analytic threshold for the 10-second injection is 50 RFUs. Mr. Hellwig explained that in both amplifications of the sample, locus D8, locus D7, and locus D2 each had "questionable activity" below the analytic threshold at the points where Defendant's alleles should have been if he were a possible contributor. At locus

D8, a 17 allele appears at 26 RFU in the first amplification and at 43 RFU in the second amplification. At locus D7, a 10 allele appears at 43 RFU in the first amplification and at 41 RFU in the second amplification. At locus D2, a 25 allele appears at 32 RFU in the second amplification.

According to Mr. Hellwig, this questionable activity is indicated by an asterisk on the allele chart. The asterisk indicates that the results at these loci are “inconclusive for the presence of additional alleles.” Although Mr. Hellwig’s confidence is low that the activity below the analytic threshold indicates actual DNA, Sorenson’s policy is not to disregard it.² Rather, because it is possible these loci could contain a 17 allele, a 10 allele, and a 25 allele, Sorenson did not use the loci to exclude the Defendant as a possible contributor to the sample. Mr. Hellwig also explained that many labs that he has visited and the Utah State Crime Lab similarly use an asterisk to indicate inconclusive data. Therefore, according to Mr. Hellwig, it was appropriate to include Defendant as a possible contributor to the DNA sample despite the fact that these three alleles are missing on the allele chart.

With regard to the FGA locus, Mr. Hellwig testified that item 25.1 was subjected to two amplifications. The first amplification was deemed inconclusive, and Sorenson used the second amplification for its report. The second amplification process did not show a 26 allele on the FGA locus. However, the first amplification *did* contain a 26 allele above the analytic threshold at 62 RFU. Mr. Hellwig explained that the presence of a 26 allele in the first amplification and its absence in the second amplification is a classic example of allelic dropout. Although the data was not used for statistical purposes, Mr. Hellwig explained his lab still used the data to determine whether Defendant is a possible contributor to the sample.

² Because of the low confidence in the data’s reliability, Sorenson did not use this data for statistical purposes.

Dr. Johnson, Defendant's expert, contends any one of these missing alleles means Defendant must be excluded as a possible contributor to the sample. She explained that any data below the analytic threshold is unreliable and must be completely disregarded. She also explained that because Sorenson labeled the first amplification as "inconclusive," it was inappropriate for Sorenson to use the data collected at the FGA locus from the first amplification to include Defendant as a possible contributor to the sample.

The testimony from the hearing is unclear whether relying on data below the analytic threshold and in inconclusive reports is generally accepted within the relevant expert community. Mr. Hellwig referenced other labs, including the Utah State Crime Lab, and indicated other labs use asterisks to indicate inconclusive data; however, he did not indicate whether other labs use this data for inclusionary purposes. Therefore, the court will analyze this practice under rule 702(b) rather than rule 702(c).

Rule 702(b) requires a threshold showing that the "principles or methods underlying the testimony . . . (i) are reliable, (ii) are based upon sufficient facts or data, and (iii) have been reliably applied to the facts of the case." Utah R. Evid. 702(b). Importantly, this threshold showing "marks only the *beginning* of a reliability determination. It is up to the trier of fact to determine the ultimate reliability of the evidence." *Gunn Hill*, 2012 UT App 20, ¶ 33.

After reviewing the testimony and evidence presented at the evidentiary hearing, the court concludes the State has made a threshold showing of reliability with regard to this data and Ms. Jeskie's conclusion that Defendant is not excluded as a possible contributor to the sample. Mr. Hellwig and Dr. Johnson disagree regarding the effect of the analytic threshold and the value of using data from two amplification processes. Both experts have reasonable interpretations and applications of the data, and it is not the court's role to decide which expert is correct. Mere

disagreement among experts does not make the testimony unreliable. *See Eskelson ex rel. Eskelson v. Davis Hosp. & Med. Ctr.*, 2010 UT 59, ¶ 12 (“[T]he degree of scrutiny [that should be applied to expert testimony by trial judges] is not so rigorous as to be satisfied only by scientific or other specialized principles or methods that are free of controversy or that meet any fixed set of criteria fashioned to test reliability.” (quoting Utah R. Evid. 702 advisory committee notes, ¶ 3)). Defendant’s objection to this evidence is a matter of weight rather than reliability, and Defendant will be able to thoroughly cross-examine Ms. Jeskie and/or Mr. Hellwig regarding the use of the data in the determination.

b. Peaks Below the Stochastic Threshold

As referenced above, Sorenson performed a 10-second injection amplification on Item 25.1. By policy, Sorenson’s stochastic threshold for a 10-second injection is 150 RFU. Because Sorenson received several results below the 150 RFU, it performed a second amplification on the item, which it calls “a confirmatory amplification.” Mr. Hellwig explained that Sorenson’s policy is if it sees the same data repeated in a confirmatory amplification—even if the data is below the stochastic threshold—then it considers the data sufficiently reliable to use for statistical purposes.

Exhibit 15 shows that Sorenson used data below the stochastic threshold for four separate loci: CSF, TH01, D13, and D19. Locus CSF exhibits a 13 allele at 17 RFU in the first amplification and at 59 RFU in the second amplification. Locus TH01 exhibits a 7 allele at 47 RFU and at 63 RFU. Locus D13 exhibits a 14 allele at 57 RFU and at 64 RFU. Locus D19 exhibits a 15 allele at 78 RFU and at 53 RFU.

Using each of these alleles, Dr. Jeskie calculated a statistical probability the DNA belongs to Defendant at 1 in 8,340 Caucasians. After Defendant challenged Sorenson’s

calculation, Sorenson re-calculated the statistical probability two more times using two more sets of data. First, Sorenson disregarded each of the four disputed alleles and calculated the statistical probability at 1 in 453 Caucasians.

Second, Sorenson disregarded the 13 allele at locus CSF and the 7 allele at locus TH01 because the confirmatory amplifications resulted in data below the analytic threshold, not just below the stochastic threshold. Sorenson included the 14 allele at locus D13 and the 15 allele at locus D19 because both amplifications resulted in RFUs above the analytic threshold. Based upon this data, Sorenson calculated a statistical probability of 1 in 2.51 thousand for Caucasians. *See Declaration of Daniel S. Hellwig, filed January 15, 2015.*

Dr. Johnson testified that standard practice is to disregard any data found below the stochastic threshold for purposes of a statistical analysis. This is because the stochastic threshold is the point at which a lab technician can be confident there has been no allelic dropout. According to Dr. Johnson, because of the danger of allelic dropout, using data below the stochastic threshold may make the statistical analysis unreliable. Therefore, according to Defendant, Sorenson miscalculated the statistical probability the DNA belongs to Defendant to the prejudice of Defendant.

In response, Mr. Hellwig testified that with regard to multiple amplifications, SWGDAM merely requires labs to have a policy with regard to how the data will be used. He explained it would be an unreasonable occurrence for the same alleles to drop out at the same loci during two amplification processes. Therefore, he has confidence the appearance of repeated peaks during a confirmatory amplification process makes the data sufficiently reliable for statistical purposes. He explained Sorenson's policy has been subject to assessment by at least two separate auditing companies. In addition, the policy was put in place by his predecessor and has been used by

Sorenson for quite some time. Even so, he is unaware of any scholarly articles, peer review, or third party testing of Sorenson's policy regarding its use of confirmatory amplifications.

Because the State presented no evidence that Sorenson's confirmatory amplification process is generally accepted in the relevant expert community, the evidence must meet the requirements of rule 702(b), which requires the State to make a threshold showing that the "principles or methods underlying the testimony . . . (i) are reliable, (ii) are based upon sufficient facts or data, and (iii) have been reliably applied to the facts of the case." Utah R. Evid. 702(b). Importantly, this threshold showing "marks only the *beginning* of a reliability determination. It is up to the trier of fact to determine the ultimate reliability of the evidence." *Gunn Hill*, 2012 UT App 20, ¶ 33.

The State has made a threshold showing of reliability regarding this testimony. SWGDAM requires labs to have a policy regarding multiple amplification processes, which Sorenson has in place. The lab only uses data for statistical purposes that have been subject to confirmation through a repeat process. The lab's analysts review the data personally. Furthermore, the lab's policy has been subjected to third party assessment and has been approved by auditing companies and at least one previous director of the lab. Although Dr. Johnson disapproves of the practice, the testimony is sufficiently reliable to be presented to the jury under rule 702.

Furthermore, Sorenson re-calculated the data two additional times using two different sets of data in order to account for Dr. Johnson's objections. At trial, the Defendant may present the alternative statistical probabilities to the jury. Any challenge to these statistical calculations and results are matters for the jury to weigh at trial. See *United States v. McCluskey*, 954 F.Supp.2d 1224, 1267 (2013). Defendant may elucidate any problems with the statistics during

cross-examination of the State's witnesses or during its own case-in-chief, and the jury may weigh the relevance of both sides' positions with respect to this evidence.

Accordingly, Defendant's motion to exclude Item 25.1 is DENIED.

4. Kinship: Sorenson Items 25.1, 5.3, and 13.4

Finally, Defendant contends the statistical calculations that were made when Defendant was found to be a possible contributor to Sorenson Items 25.1, 5.3, and 13.4 are inaccurate because Sorenson failed to take into account the kinship relations Defendant has with other possible contributors to the samples—his children. At the hearing, both Mr. Hellwig and Dr. Johnson testified that taking kinship into account would make the statistical results more favorable for Defendant. However, Mr. Hellwig explained Sorenson does not have the capability of taking kinship factors into account in conducting its statistical analysis. In addition, Dr. Johnson testified that although there are programs that take kinship relations into account, they are not standard in the relevant expert community. Hr'g. Trans. at 49.

The court concludes the methods used by Sorenson Forensics and the results of the DNA testing meet the threshold requirements of rule 702 and are sufficiently probative under rules 401 and 403. Sorenson conducted DNA testing using a random sample of possible contributors and created a statistical probability based upon this sample. As explained elsewhere in this ruling, the results of this testing meet the requirements of rule 702(c) and are relevant to show a baseline probability that a specific individual contributed to the sample. Any challenge to these statistical calculations and results are matters of weight and not of admissibility of the evidence. *See United States v. McCluskey*, 954 F.Supp.2d 1224, 1267 (2013); *cf. State v. Jones*, 2015 UT 19, ¶ 28 (“[S]tatistical conclusions . . . go to the weight of the testimony and not to the underlying scientific reliability.”). Defendant may elucidate any problems with the statistics during cross-

examination of the State's witness or during its own case-in-chief, and the jury may weigh the relevance of both sides' positions with respect to this evidence.

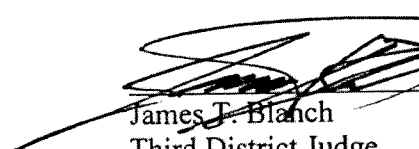
Accordingly, the Court DENIES Defendant's motions to exclude the statistical results of the testing performed on items 5.3, 13.4, and 25.1.

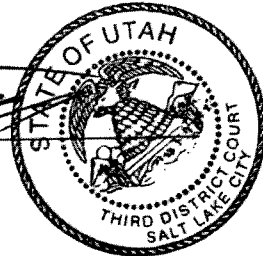
This Memorandum Decision and Order completes the court's disposition of the matters addressed herein. No further order is required from the parties under rule 7(f)(2) of the Utah Rules of Civil Procedure.

IT IS SO ORDERED.

DATED this 9th day of February, 2015.

BY THE COURT:


James T. Blanch
Third District Judge



Addendum D

The Order of the Court is stated below:

Dated: November 25, 2015 /s/ James Blanch
03:23:05 PM District Court Judge



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IN THE THIRD DISTRICT COURT, SALT LAKE DEPARTMENT
IN AND FOR THE COUNTY OF SALT LAKE, STATE OF UTAH

STATE OF UTAH,
Plaintiff,

vs.

JOHNNY BRICKMAN WALL,
Defendant.

**ORDER DENYING MOTION FOR
ARREST OF JUDGMENT (Y-STR DNA
TEST RESULTS**

Case No. 131903972

Honorable James T. Blanch

WHEREAS, on March 12, 2015, Defendant was found guilty of Murder by a jury of his peers; and
WHEREAS, on May 26, 2015, Defendant filed a Motion and Memorandum for Arrest of Judgment
(Y-STR DNA Test Results); on June 24, 2015, the State file its Memorandum in Opposition; and on
July 6, 2015, Defendant filed his Reply; and

WHEREAS, on July 8, 2015 oral argument was held were this court carefully analyzed and
articulated findings of fact and conclusions of law orally;

NOW THEREFORE, this court hereby incorporates those oral findings of fact and

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conclusions of law as part of this ruling and further expresses the following written rulings:

1. Defendant's Motion for Arrest of Judgment (Y-STR DNA Test Results) is denied.
2. It should be first noted that Defendant did file pretrial motions related to Y-STR DNA evidence (in particular to Sorenson Item 5.3) and this court issued written ruling indicating that the evidence would be admitted and that it would be subject to the factors outlined by the Utah Supreme Court in *State v. Jones*, 2015 UT 19, 345 P.3d 1195.
3. However, with respect to the particular question raised in Defendant's Motion to Arrest Judgment, the court finds Defendant made no objection during trial to the manner in which the DNA-related testimony in question was introduced. This court was therefore never given the opportunity at trial to make a ruling on whether or not the manner in which the testimony regarding Sorenson Item 5.3 complied with the pretrial ruling. Accordingly, this court finds Defendant has waived this objection and Defendant's motion is hereby denied.
4. But even in the event Defendant's objection was not waived, the court finds that there was no violation of the pretrial rulings. The DNA experts for both the State and Defendant properly explained the testing process to the jury and spoke accurately about the test conclusions. They correctly described the limitations of the Y-STR DNA analysis, including the fact that all men in a paternal line will likely have an identical Y chromosome profile. They explained the differences in generating statistics between STR and Y-STR DNA , and that the statistics yield a much lower degree of confidence in identification for Y-STR testing than for STR testing. They accurately provided the statistical conclusions for each Y-STR evidentiary item admitted during the trial. They repeatedly clarified that the Y-STR profile "match" in Sorenson Item 5.3 question profile meant a match to anyone in Defendant's

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paternal line, and not a match to the unique STR DNA profile of Defendant. For these reasons, the jury was amply informed about potential shortfalls in the usefulness of Y-STR evidence, in a manner that satisfied any requirements of *State v. Jones* or this court's pretrial ruling. Although there were professional differences of opinion between the DNA experts who testified at trial about whether Defendant could or should have been definitively excluded as the source of the DNA in item 5.3, nothing in *State v. Jones* or this court's pretrial order prevented the State's expert from holding and testifying to a different expert opinion concerning item 5.3 than Defendant's expert. The State's expert was qualified to offer the opinions to which he testified, just as Defendant's expert was qualified to offer her opinions to the contrary. The jury was entitled to hear the testimony of both experts to make its decision accordingly. Nothing about this process violated *State v. Jones* or this court's pretrial ruling.

5. Furthermore, the court finds that the DNA testimony in this case, despite how overwhelming DNA evidence can be in cases of this nature, played a relatively small probative role in the overall quantum of evidence that was presented to the jury. The DNA evidence at issue in this case was probative primarily because it merely was consistent with the State's theory of the case and allowed the jury to understand that the available DNA evidence did not undermine, and was instead consistent with, the State's theory. Due to the nature of the DNA evidence and the manner in which it was presented at trial, this is not a case in which the DNA evidence provided critical or indispensable evidence in support of the State's case or implicated Defendant in a manner that would call into question the fairness of the outcome even if there were certain discrepancies with respect to the DNA evidence.

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Therefore, even if there were error in the introduction of this evidence, it would be harmless and could not reasonably be expected to have impacted the outcome of the trial.

Approved as to form:

/s/ G. Fred Metos USB#2250

Attorney for Defendant

Signed by Matthew B. Janzen with permission of G. Fred Metos

—ELECTRONIC SIGNATURE AT TOP OF THE DOCUMENT—