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SJC-13312

COMMONWEALTH vs. TIMOTHY DUGUAY.

Plymouth. April 3, 2023. - July 28, 2023.

Present: Budd, C.J., Lowy, Cypher, Kafker, Wendlandt,
& Georges, JJ.

Homicide. Deoxyribonucleic Acid. Evidence, Scientific test. Practice, Criminal, Postconviction relief, New trial, Discovery.

Indictment found and returned in the Superior Court Department on November 7, 1995.

Following review by this court, 430 Mass. 397 (1999), a motion for a new trial, filed on September 22, 2020, was heard by William F. Sullivan, J., and a motion for postconviction discovery, filed on February 25, 2021, was considered by him.

A request for leave to appeal was allowed by Lowy, J., in the Supreme Judicial Court for the county of Suffolk.

Michael A. Nam-Krane for the defendant.

Arne Hantson, Assistant District Attorney, for the Commonwealth.

Lisa M. Kavanaugh, Committee for Public Counsel Services, Michael A. Albert, Emma L. Frank, Anne Weeks, Stephanie Roberts Hartung, & Claudia Leis Bolgen, for New England Innocence Project & others, amici curiae, submitted a brief.

CYPHER, J. Following a jury trial, the defendant, Timothy Duguay, was convicted of murder in the first degree on the theory of extreme atrocity or cruelty. This court affirmed the defendant's conviction on direct appeal. Commonwealth v. Duguay, 430 Mass. 397 (1999). Years later, the defendant filed a motion for postconviction forensic and deoxyribonucleic acid (DNA) analysis pursuant to G. L. c. 278A, § 2, which was allowed. Following the postconviction forensic analysis, the defendant filed a motion for a new trial. The motion was denied after a nonevidentiary hearing.¹

The defendant filed with this court a timely notice of appeal and a petition, pursuant to G. L. c. 278, § 33E, for leave to appeal from the denial of the motion for a new trial. A single justice granted the defendant's petition.² On appeal, the defendant argues that the new forensic analysis demonstrates that the Commonwealth's blood and DNA trial evidence was unreliable and that a confluence of factors demonstrates that justice was not done in this case, thus requiring a new trial.

¹ The defendant also filed a motion for postconviction discovery. The motion judge did not rule on the motion; thus, it implicitly was denied. See Commonwealth v. Dubois, 451 Mass. 20, 29 (2008), citing Commonwealth v. Rosado, 450 Mass. 657, 659 (2008) ("The failure of a judge to rule on a motion is treated as an implicit denial").

² The single justice also allowed the defendant leave to appeal from the denial of his motion for postconviction discovery.

For the reasons set forth infra, we affirm the denial of the defendant's motion for a new trial.³

Background. The facts surrounding the murder are set forth in detail in Duguay, 430 Mass. at 398-400. "We summarize those facts here and supplement them with other relevant facts from the trial record and the facts found by the motion judge to be significant with respect to the defendant's motion for a new trial, all of which are supported by the record." Commonwealth v. Sullivan, 469 Mass. 340, 341 (2014).

The victim, Robert Madera, lived with his mother in Wareham. The defendant lived a short walking distance away. When the defendant was seventeen years old and the victim was twelve years old, they became involved in an on-and-off intimate relationship, which would continue for the next five years until the victim's death at the age of seventeen.⁴ Duguay, 430 Mass. at 398.

The defendant and victim's relationship included many disagreements and growing animosity prior to the victim's death. When the victim was twelve, the defendant "constantly came

³ We acknowledge the amicus brief submitted by the New England Innocence Project, Committee for Public Counsel Services, and Massachusetts Association of Criminal Defense Lawyers.

⁴ The defendant was twenty-three years old at the time of the murder. Commonwealth v. Duguay, 430 Mass. 397, 398 (1999).

around looking for [him], asking where he was and what he was doing." The victim would sneak out of his own home to go to the defendant's home, and during this time, the defendant told the victim's stepfather that he and the victim were in a sexual relationship and that he loved the victim.

When the victim was about fourteen, the victim's mother asked the defendant to stay away from her son. The defendant became angry, telephoned the victim's mother's house, called her uncomplimentary names, and told her to mind her own business. These harassing telephone calls, in which the defendant used vulgar language toward the victim's mother, continued for some time. The victim's mother would change her telephone number, but the defendant always found a way to obtain her new telephone number.

The defendant's harassment of those close to the victim went beyond the victim's immediate family. When the victim was in tenth grade, the defendant told the victim's then girlfriend that he loved the victim. The defendant repeatedly would ask the victim's girlfriend to persuade the victim to perform oral sex on him. After the victim revealed to his girlfriend that the defendant had performed oral sex on him, the defendant began to telephone her house and harass her, bragging that he had had sex with the victim.

During the summer of 1995, the defendant talked often to his girlfriend about the victim. He told her that the victim played games, lied, and "fucked with his mind." The defendant told his girlfriend that he was going to blackmail the victim by threatening to tell those close to the victim about their intimate relationship. The defendant also said that if the victim threatened to tell anyone that the defendant had molested him, the defendant would just say "that [the victim] had enjoyed it." The defendant also telephoned his girlfriend's cousin during this time and told her that he was arguing with the victim and that he would like to kill him. That summer, when the victim and his girlfriend drove by the defendant, the defendant called her a "bitch" and yelled at her that he was "going to fuck her up."

In the weeks before the victim's death, he acted fearful and nervous, slept in his clothes, and kept the lights on at night. The victim believed that police were watching him before his upcoming Juvenile Court date.⁵ During this time, the victim's uncle, Robert Gomes, had moved from Rhode Island to the victim's family home. The victim believed that his uncle was staying with them because "people" were after his uncle, who had been forced to leave Rhode Island. The victim told his then

⁵ The victim told a prior girlfriend that he had "committed a breaking and entering a long time ago."

girlfriend that someone was going to kill him and that he was afraid of "getting caught in the middle" of the uncle's alleged dispute. The victim's uncle did not leave Rhode Island, however, because someone was after him, and he had not told the victim so. Instead, the victim's uncle had left Rhode Island to seek help for his substance disorder. Nonetheless, the victim continued to be fidgety and nervous.

The growing animosity between the defendant and the victim continued in the days leading up to the victim's death. See Duguay, 430 Mass. at 398. "Four days before the victim's death, the defendant received a judgment against the victim." Id. The judgment stemmed from money the victim had borrowed from the defendant. See id. The victim offered to repay the defendant. However, the defendant stated that he would rather have the victim spend the night with him than be repaid the money owed under the judgment. Id. "That evening, . . . a Thursday, the defendant and the victim spent the night together and were intimate." Id. The defendant and victim had planned to spend Sunday night together, the night before the murder, but the victim had gone out with a female friend and spent the night at his own home. See id.

On the day of the murder, the victim was agitated and wanted to visit his mother at her place of work, telling her that he needed to talk to her. The victim had spent some time

that day with his girlfriend and told her "that if he told her what was going on, she would not love him and would leave him." The victim indicated that something happened when he was twelve years old and that he had been warned never to tell anyone.

That same day, after the victim did not spend Sunday night at the defendant's home, the defendant telephoned the victim and demanded to know where the victim had been the night before. Duguay, 430 Mass. at 398. The victim's mother's cousin, who lived next door, was listening to a police scanner on the evening of the murder and heard the defendant loudly and angrily accuse the victim of standing him up. The cousin also heard the defendant tell the victim that he was coming over to tell the victim's mother "everything" and was going to "fuck up" the victim. The defendant drove to the victim's house twice on the day of the murder, but each time, the victim refused to talk to the defendant and told him to leave.⁶ Id. at 398-399.

Approximately one to two hours before the murder, the defendant told a friend that the victim was supposed to spend the night with him but did not. Duguay, 430 Mass. at 399. He told her that he was tired of being hurt by the victim and said

⁶ After the defendant had driven to the victim's home to speak with the victim, and the victim told the defendant to "leave [him] alone," the victim told his uncle, Joseph Vasconcelos, "Timmy Duguay is a pain in the ass. He just keeps bugging me, he won't leave me alone."

that he was going to kill the victim. Approximately twenty minutes before the murder, the defendant telephoned the victim's home and left a voice message for the victim's mother. Id. In the message, the defendant told the victim's mother that he had been having a sexual relationship with the victim, that the victim was "going to answer for the head games he's played with [the defendant]," and that the victim was not going to threaten the defendant "because [the defendant was] just going to turn [him]self in and [he has] already started that." Id. The defendant also warned the victim's mother that she ought to "get ready for a fun ride at the courthouse." Id.

Around 7:15 P.M. on the night of the murder, a friend of the victim telephoned him, but the victim said he could not talk because "someone was coming," and the victim hung up. When the friend telephoned again, the victim sounded scared, said that someone was coming, and then said that someone was there with him at the house. The victim told her "to never call back and hung up." When the friend drove to the victim's home at approximately 7:40 P.M., she knocked on the front door and honked her car horn but received no response.

At approximately 7:50 P.M., the victim's aunt, who lived in a neighboring house, was walking her dog and saw the victim walk out the front door of the home and fall to the ground face down. The victim's face was smeared with blood, and the aunt rushed

into the home to call for an ambulance. As the ambulance was driven onto the victim's street, the driver saw someone in dark clothes walking in the opposite direction from the victim's home. Duguay, 430 Mass. at 399. Although there were loud screams coming from the direction of the victim's home, the dark-clothed person did not turn around or react in any way and continued to walk away. See id.

The victim could not speak, was struggling to breathe, and had multiple stab wounds to his neck, face, and chest. Duguay, 430 Mass. at 399. He died in the ambulance en route to a hospital. Police were dispatched to the crime scene and learned that the defendant's vehicle was seen being driven from the victim's house earlier that evening.⁷ Id. This prompted police to go to the defendant's house.⁸ Id.

When police arrived at the defendant's house, he told them, "I knew you were coming." The defendant was then read his Miranda warnings and agreed to go to a police station to talk. While in the back seat of the police cruiser, the defendant asked what police wanted to know. When an officer responded that the defendant should just tell them what happened, the

⁷ An officer collected as evidence a steak knife on the staircase by the sliding door. The knife did not appear to have blood on it.

⁸ Police ultimately looked at other suspects after speaking to the victim's uncle, Robert Gomes.

defendant replied, "If I tell you what happened you'll put me away for the rest of my life."

On arriving at the police station, the defendant was read the Miranda warnings again and was interviewed. Duguay, 430 Mass. at 400. The defendant was sweating and appeared nervous. He initially denied his sexual relationship with the victim, but after police told the defendant that they knew of the voice message that he left for the victim's mother, he admitted to his relationship with the victim. Id. The defendant told police that he was tired of the victim playing "head games," as the victim had threatened to send the defendant to jail for life for raping him when the victim was twelve.

The defendant also admitted that he had lent money to the victim and obtained a judgment against him. He also told police that the victim recently had "started hanging around with a bad crowd," and that he had telephoned police to report the victim and his friends for illegal activities. The defendant admitted that he had argued with the victim in the days before the murder and thought that the victim's family might have telephoned police because of their argument.

During the interview, the defendant was wearing the same dark clothes as he had been wearing since the middle of the day. Duguay, 430 Mass. at 400. An officer observed the defendant's hands and arms and did not observe any blood or recent wounds.

With the defendant's consent, the defendant was fingerprinted and had his clothes tested for blood by a State police chemist, Lori Bunnell.

Bunnell performed an ortho-tolidine screening test for the presence of blood on the defendant's hands. Bunnell testified that any type of blood, including human, animal, and insect blood, and blood from meat, would cause a positive reaction. Human blood causes an immediate bright blue reaction, while slower reactions can be caused by vegetation, rust, and detergents.⁹ Other bodily fluids like saliva and feces also would cause a reaction. A positive ortho-tolidine test result is indicative of the presence of blood, but it does not prove that the substance is blood. Thus, the ortho-tolidine testing is presumptive testing only for blood.

There was no visible blood on his hands, fingernails, or clothes. Bunnell's testing revealed that the defendant's left hand was positive between his fingers and on the palm, but not on the back of his hand. The defendant's right hand tested positive between his fingers, on his palm, and on the back of his hand. Further testing was done on the defendant's sneakers and socks and the soles of his feet. The bottoms of the

⁹ Bunnell did not photograph or videotape the chemical reaction.

defendant's sneakers and the soles of his feet tested positive, but his socks tested negative.

Bunnell then conducted further ortho-tolidine testing in the victim's house. The bottom of the bathroom sink and its handles tested positive. Swabs of the visible blood were taken and were determined to be human blood. Hair also was collected from a knife on the kitchen floor; however, the hair sample was too small for identification.

Bunnell then conducted the same testing at the defendant's house. The light switch near the entrance door tested positive. Red drops on the wall behind the sink tested negative. However, the base of the sink, the tub faucet, the shower head, and the bathtub tested positive.¹⁰ The same testing was done to the defendant's car. The outside and inside of the driver's side door, the trunk, the passenger's seat, and the car keys tested negative, but the steering wheel, the gear shift, the brake and gasoline pedals, and the driver's seat tested positive.

After conducting testing at the defendant's and victim's respective homes, Bunnell returned to the police station to perform more testing on the defendant. Bunnell tested the defendant's sneakers, turtleneck shirt, jeans, and jacket.

¹⁰ Bunnell conceded at trial that blood can fall into a sink when someone is shaving. The defendant's mother also recently had had surgery and had a leg and some toes amputated, unbeknownst to Bunnell.

Parts of the turtleneck shirt tested positive, as well as each leg of the defendant's jeans. The interior of the pockets of the defendant's jeans tested negative. The front and back of the defendant's jacket tested positive, but not the collar or the interior pockets. The jacket had an approximately three-eighths inch cut on the right sleeve.

Rectal swabs taken from the victim also were examined by Bunnell. The swabs contained a relatively small amount of sperm cells. The semen was type B blood, even though the defendant has type A blood. Bunnell also examined hair evidence found on the defendant's sneakers. The human hair was not similar to samples of hair of either the defendant or victim.

A State police crime laboratory (crime lab) serologist also was called on to examine blood and saliva samples from the defendant, blood samples from the crime scene, and blood samples and rectal swabs from the victim. The serologist determined that the blood from the crime scene was consistent with the victim's blood, and that none of the blood at the crime scene was consistent with that of the defendant. The serologist also examined the rectal swabs taken from the victim and detected type B blood from the sample but could not opine on whether the type B blood came from sperm cells or mucus.¹¹

¹¹ The defendant has type A blood, and is a secretor, such that he secretes his blood type into any bodily fluids. The

After analysis of photographs and video recordings of the crime scene by a State police trooper trained in bloodstain analysis, the trooper testified that it was his opinion that the victim was attacked from behind on the couch, stumbled across the room, grabbed onto various items of furniture for support, stumbled toward and out of the front door, and fell onto the front lawn. In closing, the Commonwealth emphasized the soured relationship between the defendant and the victim, and the incriminating statements made by the defendant to his girlfriend shortly before the murder, as well as to the victim's mother and police. The Commonwealth also emphasized that the ortho-tolidine tests that came back positive were indicative of the presence of blood. The Commonwealth, however, did not mention the unidentified hairs found on the kitchen floor or on the knife.

Defense counsel emphasized the lack of physical evidence, i.e., fingerprints, blood, or hair, conclusively tying the defendant to the victim's murder. Defense counsel emphasized that, although the murder scene was a "blood bath," there was no conclusive proof of blood on the defendant's hands, clothes, or car. Defense counsel attacked the presumptive ortho-tolidine testing as too sensitive to too many different substances.

victim had type B blood, but the serologist could not determine whether he also was a secretor.

Defense counsel also emphasized that the hair found on the knife at the crime scene did not match that of either the defendant or the victim. Defense counsel then emphasized the victim's alleged fear of anonymous drug dealers who, the victim claimed, were after his uncle.

The jury convicted the defendant of murder in the first degree on a theory of extreme cruelty or atrocity. This court affirmed the conviction on direct appeal. See Duguay, 430 Mass. at 398. In his direct appeal, we concluded that the orthotolidine screening tests were not unfairly prejudicial without confirmatory testing, particularly where the defendant "freely and repeatedly pointed out the limitations of the test." Id. at 402.

In 2016, following multiple pro se motions by the defendant, as well as a petition for Federal habeas corpus review, the defendant filed a motion for postconviction DNA analysis pursuant to G. L. c. 278A. The motion was allowed. The defendant then filed a motion for a new trial and, in support, presented forensic retesting of the evidence examined by Bunnell.

The forensic retesting of the evidence included serology and short tandem repeat (STR) analysis DNA testing on the knife, and the defendant's jeans, jacket, turtleneck shirt, and sneakers. STR testing also was conducted on the broken knife

handle, the hair from the knife, and a hair sample from the victim's uncle.¹²

STR analysis on the left exterior pocket of the defendant's jeans, although inconclusive, contained a mixed profile with one male contributor. The front knee areas of the jeans had on them DNA consistent with that of the defendant, and the victim was excluded as the source of that DNA profile. The same was true about the back of the right knee of the defendant's jeans. The testing on the exterior front right pocket, back right pocket, back of the left knee, and back left pocket also was inconclusive.

STR analysis on the jacket resulted in a mixture of two profiles on the exterior front left chest; both the defendant and victim were excluded as contributors of those profiles. The remainder of the testing on the jacket either was inconclusive or produced no DNA profile. The same is true of the defendant's turtleneck shirt, as no conclusions could be made about a partial DNA profile that was discovered on the turtleneck shirt. Analysis of the defendant's sneakers also resulted in the

¹² The defendant submitted an affidavit of a private forensic DNA consultant who averred that the new short tandem repeat (STR) analysis testing kits were more sensitive than methods used at the time of the victim's murder. The test used was the extremely sensitive PowerPlex Fusion 6C DNA test, which was one of the latest generations of STR tests.

detection of a partial mixed profile, but again, no conclusion could be drawn from it.

Finally, a DNA profile on the knife blade and handle matched the victim and excluded the defendant. The same applies to a DNA profile from blood spatter on the wall behind the couch. DNA on a cigarette from the crime scene matched that of the victim and excluded the defendant, which also was the result of sperm fractions taken from the victim's rectum with a rectal swab.

The defendant also obtained mitochondrial DNA (mtDNA) testing on hair samples taken from the knife at the crime scene, as well as from the victim's maternal uncle. The testing excluded Gomes and his maternal relatives as contributors to the hairs on the knife, and also excluded the defendant.

In addition to DNA analysis, phenolphthalein presumptive blood testing was performed on many of the areas that tested positive during Bunnell's ortho-tolidine testing, including the defendant's sneakers, turtleneck shirt, jeans, and jacket. The defendant's jeans tested negative. His jacket tested inconclusive yet contained a component that reacted with phenolphthalein. The turtleneck shirt and sneakers tested negative; however, the knife and knife handle tested positive.

The defendant also presented an affidavit from William Best, a certified forensic examiner who reviewed the defendant's

case file, including police and forensic reports, as well as trial testimony of Bunnell and the State serologist. Best averred that presumptive tests like ortho-tolidine tests do not prove the presence of blood with certainty and may give false positive and negative results.¹³ Best raised doubts as to the validity of the ortho-tolidine results. For example, based on Bunnell's laboratory notes, Best averred that several test results she reported as positive were only "weak positive" results and therefore should have been reported as negative results.¹⁴

In response to the forensic and DNA evidence submitted by the defendant, the Commonwealth submitted an affidavit of its own expert, Diane Biagiotti, a forensic scientist in the DNA unit of the State police crime lab. She averred that environmental factors, such as heat, humidity, and sunlight, as well as the passage of time, can degrade DNA samples, thus affecting any DNA profile obtained. Biagiotti averred that DNA

¹³ The defendant submitted a 1991 article from the Journal of Forensic Sciences that phenolphthalein is the best presumptive test for blood because it is the most specific and does not react to plant peroxidases like the ortho-tolidine testing. Cox, A Study of the Sensitivity and Specificity of Four Presumptive Tests for Blood, 36 J. Forensic Sci. 1503, 1503-1511 (Sept. 1991).

¹⁴ The defendant also introduced an affidavit from Tracey Ray, a forensic chemist and consultant, who echoed the opinion of Best that Bunnell should not have reported certain tests as positive. Ray viewed Bunnell's trial testimony as misleading.

profiles taken so many years later may not be suitable for comparison. Furthermore, she also declared that STR DNA testing, while human specific, cannot determine from which types of cells or biological fluid the DNA profile originated.

Despite the recent DNA and forensic analysis discussed supra, the motion judge denied the defendant's latest motion for a new trial. The judge found that neither the phenolphthalein presumptive blood testing nor the mtDNA testing was newly discovered.¹⁵ While STR DNA testing was available at the time of trial, the specific PowerPlex Fusion 6C DNA test was not. Thus, the motion judge concluded that the evidence was newly discovered. Where the evidence provided only impeachment value, and merely was cumulative of much of the other evidence at trial, the motion judge concluded that the new evidence did not cast real doubt on the justice of the defendant's conviction.

The defendant filed a timely notice of appeal in the Superior Court. In the county court, he then filed a petition for leave to appeal from the denial of his motion for a new trial pursuant to G. L. c. 278, § 33E, which was granted by a single justice.

¹⁵ Although the judge found that this testing did not constitute newly discovered evidence, he determined that the evidence did not create a substantial risk of a miscarriage of justice. The same is true for the defendant's argument in his motion that there was a confluence of factors that warranted the order of a new trial.

Discussion. "Rule 30 (b) of the Massachusetts Rules of Criminal Procedure, as appearing in 435 Mass. 1501 (2001), authorizes a judge to 'grant a new trial at any time if it appears that justice may not have been done.'" Commonwealth v. Watkins (No. 1), 486 Mass. 801, 803-804 (2021). See Commonwealth v. Mazza, 484 Mass. 539, 551 (2020). "A motion for a new trial is addressed to the sound discretion of the judge." Commonwealth v. Sanchez, 485 Mass. 491, 498 (2020). Generally, "[a]n appellate court will examine the motion judge's conclusion only to determine whether there has been a significant error of law or other abuse of discretion." Id., quoting Commonwealth v. DiBenedetto, 458 Mass. 657, 664 (2011). However, where the motion judge neither presided over the trial nor conducted an evidentiary hearing, we are in as good a position as the motion judge to assess the documentary evidence found within the record, thus allowing this court to review the judge's decision de novo. See Mazza, supra at 547.

Where the defendant's motion for a new trial is based on new evidence, the defendant must demonstrate that (1) "the evidence is either 'newly discovered' or 'newly available,'" and that (2) "it 'casts real doubt' on the justice of the defendant's conviction." See Sullivan, 469 Mass. at 350. See also Commonwealth v. Grace, 397 Mass. 303, 305-306 (1986). "New evidence will cast real doubt on the justice of the conviction

if there is a substantial risk that the jury would have reached a different conclusion had the evidence been admitted at trial." Sullivan, supra, citing Grace, supra at 306.

1. STR DNA testing. First, the defendant argues that the STR DNA testing is newly available evidence that would have played a role in the jury's deliberations. More specifically, the defendant alleges that the DNA results obtained from the retesting of the defendant's clothes and sneakers and the murder weapons casts real doubt on the justice of the defendant's conviction.

Before analyzing whether the STR DNA testing casts such real doubt, we must first analyze whether the evidence constitutes "newly discovered," or "newly available," evidence. See Grace, 397 Mass. at 306 (defendant must demonstrate that new evidence was "unknown to the defendant or his counsel and not reasonably discoverable by them at the time of trial"). While the motion judge found that STR DNA testing existed at the time of the defendant's trial, see Commonwealth v. Rosier, 425 Mass. 807, 811-813 (1997), the particular test, i.e., the PowerPlex Fusion 6C DNA test, is an extremely sensitive, new generation of STR DNA testing that was not available in 1997. Therefore, we conclude that the defendant has satisfied his initial burden, i.e., that the STR DNA testing constitutes newly available evidence. See Sullivan, 469 Mass. at 350 n.6 (particular

forensic testing methodology that had not yet been developed or gained acceptance by courts may constitute newly available evidence).

Because the STR DNA testing constitutes newly available evidence, our analysis hinges on whether such evidence would have been a real factor in the jury's deliberations, such that it would have cast real doubt on the justice of the defendant's conviction. See Commonwealth v. Lessieur, 472 Mass. 317, 331, cert. denied, 577 U.S. 963 (2015), quoting Commonwealth v. Santiago, 458 Mass. 405, 415 (2010) ("A defendant seeking a new trial on the ground of newly discovered evidence must establish both that the evidence is newly discovered and that it casts real doubt on the justice of the conviction" [emphasis added]).

The defendant argues that the STR DNA testing swabbed the exact same areas of the defendant's clothes and sneakers that Bunnell testified were positive for the presence of blood, and obtained partial DNA profiles from three small areas of the defendant's jeans and one small area of the defendant's jacket, which excluded the victim as a possible contributor. Where the victim was excluded from the partial DNA profiles collected from the defendant's jeans, the defendant argues that the DNA evidence demonstrated that the victim's blood was absent from the defendant's clothes; thus, the defendant contends, this evidence conclusively refuted Bunnell's testimony that the

ortho-tolidine testing indicated the presence of blood on his clothes. Therefore, the defendant argues that Bunnell's testimony and the admission of her handwritten notes were improper.

The defendant's argument is somewhat misleading, however, because it assumes that, because the victim conclusively was excluded from these partial DNA profiles, it necessarily also must follow that the victim's DNA entirely was not present on the defendant's clothes. While the STR DNA testing excludes the victim as a contributor to the specific partial DNA profiles found on the defendant's jacket and jeans, most, if not all, of the other DNA testing was inconclusive at best. Much of the other partial DNA profiles from the defendant's clothes could not either include or exclude the victim as a possible contributor. The same is true from the testing of the defendant's sneakers, because while a partial DNA profile was found on the sneakers, no conclusion could be drawn as to whether the victim was included as a contributor to the profile.

The defendant compares the STR DNA testing to the additional testing done in Commonwealth v. Cowels, 470 Mass. 607 (2015). In Cowels, the Commonwealth introduced two bloodied towels at trial to suggest that both defendants had used the towels to clean themselves after stabbing and killing the victim. Id. at 607-608. Testing of the towels at that time,

however, neither identified nor excluded the defendants and the victim as the sources of the blood. Id. at 608. It was not until additional testing was done on one of the towels, years after the defendants' convictions had been affirmed, that it was revealed that the blood on the towel conclusively did not belong to either the defendants or the victim, but instead belonged to an unidentified male. Id. In ordering a new trial, this court emphasized that there was no other forensic evidence at the crime scene, except the towel, that was linked to the defendants. Id. at 619. In a case with a "dearth of physical evidence," the towels served as the most important piece of evidence to corroborate the testimony of the prosecution's key witness, who presented significant credibility issues. See id. Thus, the towels likely were a real factor in the jury's deliberations and ultimate convictions of the defendants. Id. at 623-624.

Unlike in Cowels, where it conclusively was proved that none of the blood found on the towel belonged to either the defendant or the victim, the STR DNA testing of the defendant's clothes and sneakers does not exclude both the defendant and the victim as the contributor of the partial DNA profile. See id. at 620 (new testing conclusively established that blood did not come from either defendants or victim). It also does not point conclusively to an unidentified male, as did the additional

testing done in Cowels. See id. Rather, the STR DNA testing only conclusively excludes the victim as a contributor to a partial DNA profile on three small areas of the defendant's jeans and one small area on his jacket.

Furthermore, in Cowels, the bloodied towel was the only piece of physical evidence that linked the defendants to the bloody stabbing. See id. at 621. See also Sullivan, 469 Mass. at 352 (purported blood on defendant's cuffs and hair in defendant's pocket were "sole pieces of evidence indicating the defendant had been in the presence of the victim during the killing"). Here, there were numerous other pieces of physical evidence, beyond the defendant's jacket and jeans, that tested positive for the presence of blood following ortho-tolidine testing that would still link the defendant to the murder.¹⁶

At best, where the vast majority of the additional STR DNA testing rendered inconclusive results, and where only the victim was excluded from partial DNA profiles recovered from only four of the many small areas of the victim's clothes that were

¹⁶ Other pieces of evidence that tested positive for the presence of blood following ortho-tolidine testing, excluding the defendant's jeans and jacket, included the following: the defendant's hands, his sneakers, the soles of his feet, the light switch at his home, the bathroom sink, the bathtub faucet, the movable shower head in the bathtub, the bottom tile of the bathtub, the steering wheel of his car, the gear shift, the brake and gasoline pedals, the driver's seat, and the victim's bathroom sink.

retested, the additional testing would serve only to impeach Bunnell's testimony that the presumptive ortho-tolidine testing indicated the presence of blood on the defendant's clothes. Cf. Cowels, 470 Mass. at 620 (test that would exclude definitively defendants and victim as source of DNA profile, and instead would point to unidentified male as source of DNA, would not merely reduce weight that jury might give evidence, but would instead bar admission of such evidence). It does not, as the defendant argues, serve as a bar to the admission of Bunnell's testimony that the ortho-tolidine testing returned positive results for the presence of blood on much of the defendant's clothes. See id.

Moreover, the impeachment value of the additional STR DNA testing also likely is to be quite low because the defendant "freely and repeatedly pointed out the limitations of the [ortho-tolidine] test." Duguay, 430 Mass. at 402. Although the prosecutor did allude to the importance of Bunnell's testimony on the ortho-tolidine testing, this argument followed defense counsel's powerful cross-examination of Bunnell in which defense counsel had asked her, "Now, in your -- and by the way, your testimony regarding the ortho-toluidine test, you do not mean to leave with this jury that you found blood on this young man, [the defendant], do you?" Bunnell replied, "No." In multiple follow-up answers after continued cross-examination from defense

counsel, Bunnell confirmed that she was not testifying that the presence of blood was found on the defendant.

These pieces of physical evidence, i.e., the defendant's jacket and jeans, were not the linchpin in the Commonwealth's case. Cf. Commonwealth v. Cameron, 473 Mass. 100, 110 (2015) (DNA evidence from complainant's underwear tipped scale against defendant at trial, and newly discovered evidence eliminated defendant as source of semen on complainant's underwear, thus negating key piece of physical evidence that was real factor in corroborating complainant's testimony). The strength of the Commonwealth's case primarily was built on the other largely circumstantial evidence of the defendant's guilt, which included the defendant's hostility toward the victim following the turmoil in their intimate relationship, the defendant's threat to the victim to come over and "fuck him up," the defendant's statement to a third party prior to the murder that he wanted to kill the victim, the defendant's proximity to the victim's house and opportunity to commit the crime, statements to police that demonstrated a consciousness of guilt,¹⁷ and threatening telephone calls to the victim's mother in which the defendant

¹⁷ After the defendant received the Miranda warnings, an officer asked the defendant to tell the officers what had happened. The defendant replied, "If I tell you what happened you'll put me away for the rest of my life."

told her to "get ready for a fun ride at the courthouse."¹⁸

Duguay, 430 Mass. at 399.

Ultimately, "[t]he weight and credibility of the evidence is the province of the jury." Commonwealth v. Dubois, 451 Mass. 20, 28 (2008). "Newly discovered evidence that tends merely to impeach the credibility of a witness will not ordinarily be the basis of a new trial." Commonwealth v. Sleeper, 435 Mass. 581, 607 (2002), quoting Commonwealth v. Lo, 428 Mass. 45, 53 (1998). Where much of the STR DNA testing rendered inconclusive results, and where the additional testing that excluded the victim as the contributor to a small number of partial DNA profiles would have been admissible only to impeach the already powerfully impeached testimony from Bunnell, we conclude that the newly available evidence likely would not have been a real factor in the jury's

¹⁸ The defendant also argues that additional STR DNA testing on the murder weapons, i.e., the knife and the broken knife handle that were found, casts real doubt on the justice of the defendant's conviction. STR DNA testing revealed three partial profiles on the weapons, which statistically included the victim as the source and statistically excluded the defendant as the source. Contrary to the defendant's argument, this additional evidence only would have served for impeachment value, similar to the STR DNA testing performed on the defendant's clothes that was discussed supra. See Commonwealth v. Upton, 484 Mass. 155, 168 (2020) (additional newly available impeachment evidence generally does not warrant new trial). Therefore, the additional testing does not cast real doubt on the justice of the defendant's conviction, particularly in light of the strength of the other evidence strongly supporting the defendant's guilt. See id.

deliberations and does not cast real doubt on the justice of the defendant's conviction. Sullivan, 469 Mass. at 350-351.

2. Seminal fluid residue. The defendant argues that the testing of two swabs of the victim's rectum, which revealed two partial DNA profiles that were consistent with the victim, demonstrates that the defendant was not the contributor of the semen evidence. The defendant claims that the newly available DNA evidence that excludes him as a possible donor of the seminal fluid residue would have been a real factor in the jury's deliberations and thus warrants a new trial. We disagree.

Even assuming that the DNA testing on the two swabs from the victim's rectum constitutes newly available evidence, the evidence does not cast real doubt on the justice of the conviction. At trial, the Commonwealth's serologist declined to exclude conclusively the defendant as the donor of the seminal fluid residue. She instead testified that she could form no conclusion as to the source of the sperm. While the DNA testing certainly would impeach this testimony from the Commonwealth's serologist, evidence that tends only to impeach the Commonwealth's witness generally is insufficient to warrant a new trial. See Sleeper, 435 Mass. at 607 (newly discovered evidence that tends only to impeach credibility of witness not ordinarily grounds for new trial). See also Commonwealth v.

Mitchell, 62 Mass. App. Ct. 769, 776 (2005) (same).

Furthermore, although the serologist declined to exclude the defendant as a contributor, her testimony already was impeached powerfully when she acknowledged both that the seminal fluid residue was type B blood and that the defendant had type A blood.

The additional DNA evidence also merely would have been cumulative of the other evidence presented at trial, which overwhelmingly demonstrated that the defendant and victim were in an intimate relationship. Compare Commonwealth v. Eagles, 491 Mass. 210, 222 (2023) (hair evidence cumulatively pointed to strong, overwhelming showing that defendant was in fact perpetrator), with Sullivan, 469 Mass. at 352 (blood on defendant's cuffs and hair in defendant's pockets were different in kind and not merely cumulative of other evidence at trial). To the extent that the defendant argues that the seminal fluid was a key factor for the Commonwealth's theory of the defendant's motive,¹⁹ i.e., that he was a "jilted lover," there was extensive evidence presented at trial that the defendant and victim were in an on-and-off intimate relationship before the victim's death, irrespective of the evidence of the seminal fluid residue. Such evidence included that (1) the defendant

¹⁹ Contrary to the defendant's argument, the Commonwealth did not address the semen evidence in its closing argument.

told the victim's stepfather that he and the victim were in a sexual relationship; (2) the defendant told the victim's prior girlfriend that he loved the victim; (3) the defendant harassed the victim's previous girlfriend to persuade the victim to perform oral sex on him; (4) after the victim revealed to his girlfriend that the defendant had performed oral sex on him, the defendant began to call her house to harass her, bragging that he had had sex with the victim; (5) after the defendant obtained a judgment against the victim in the days leading up to the murder, they were intimate because the defendant told the victim that he would rather have relations with the victim than be paid the money owed under the judgment; and (6) the defendant himself, in perhaps the most impactful evidence of the intimate relationship, admitted to his sexual relationship with the victim both in a telephone call to the victim's mother approximately twenty minutes before the murder and to the police during questioning. Duguay, 430 Mass. at 399-400. Therefore, we conclude that the evidence of the seminal fluid residue does not cast real doubt on the justice of the defendant's conviction. Sullivan, 469 Mass. at 350-351.

3. Forensic testing of hair. The defendant argues that the additional mtDNA testing revealed that the hair found on the murder weapon belonged to neither the defendant nor the victim. Such testing was done on the hair found on the murder weapon,

the hair taken from the victim's maternal uncle, and a saliva sample taken from the defendant. The testing revealed that the defendant, Gomes, and all of their maternal relatives were excluded as the source of the hair on the knife.

The victim is a maternal relative of his uncle, Gomes, and where Gomes's maternal relatives were excluded as the source of the hair, the defendant argues that the new mtDNA testing conclusively excludes the victim as a source of the hair evidence. This new conclusive evidence would have been a real factor in the jury's deliberations, according to the defendant, and casts real doubt on the justice of the defendant's conviction.²⁰

²⁰ The Commonwealth disagrees with the defendant's argument that the additional mtDNA testing conclusively excludes the hair as that of the victim. The motion judge did not have the benefit of the results of the most recent DNA tests performed, which the Commonwealth provided in its appendix in this appeal. The Commonwealth claims that the results of the most recent testing confirm that the hair on the murder weapon belonged to the victim because the partial DNA profile matched the victim. The defendant disagrees because Bunnell testified that the hair was found adhered to the blood found on the murder weapon and argues that it was the victim's blood that produced the match of the victim to the partial DNA profile that was discovered. Notwithstanding this factual dispute between the parties, where we conclude *infra* that the additional testing would have been at best cumulative of the evidence presented at trial, i.e., that the hair belonged to neither the defendant nor the victim, the evidence does not cast real doubt on the justice of the defendant's conviction and does not entitle the defendant to a new trial. See Commonwealth v. Moore, 489 Mass. 735, 749 (2022).

The motion judge found that the defendant failed to demonstrate that mtDNA testing was unavailable in 1997 at the time of the defendant's trial. See Commonwealth v. Baker, 440 Mass. 519, 528 (2003) (mtDNA analysis of hair available in 1997). Nonetheless, even if we were to assume that the additional mtDNA testing constitutes newly discovered evidence, the evidence would not have been a real factor in the jury's deliberations. At trial, Bunnell testified that the hair sample found from the knife microscopically was compared to hair samples taken from the defendant and the victim. Bunnell testified that the hair sample was similar to neither the defendant's nor the victim's hair. The defendant thus was able to argue to the jury that the murder was committed by an unidentified third-party culprit, an argument clearly rejected by the jury. See Commonwealth v. Barry, 481 Mass. 388, 400, cert. denied, 140 S. Ct. 51 (2019) (although exculpatory evidence further would call into question credibility of witness, jury clearly opted to convict defendant despite such extensive credibility issues). Therefore, much like the semen evidence, where the additional forensic testing merely is cumulative of the evidence at trial, and where the hair evidence was not an important factor in the Commonwealth's case,²¹ we

²¹ Like the semen evidence, the Commonwealth did not address the hair evidence in its closing.

conclude that the additional mtDNA testing that purportedly and conclusively would exclude the victim as the source of the hair found on the murder weapon does not cast real doubt on the justice of the defendant's conviction. See Commonwealth v. Teixeira, 486 Mass. 617, 641 (2021) (where defense counsel repeatedly cast doubt on witness's credibility and reliability, newly discovered evidence that is cumulative of other significant impeachment evidence not grounds for new trial).

4. Phenolphthalein testing. The defendant argues that the phenolphthalein presumptive testing for the presence of blood constitutes newly discovered evidence that casts real doubt on the justice of his conviction. Many of the items that tested positive for the presence of blood after Bunnell conducted ortho-tolidine testing were retested using a different presumptive test for the presence of blood, known as phenolphthalein testing. This alternative testing is said to be a better presumptive test for blood because it is the most specific presumptive testing available and does not react to plant peroxidases, as does ortho-tolidine testing.

Although the phenolphthalein testing is better testing than the ortho-tolidine testing performed by Bunnell, we disagree that the phenolphthalein testing constitutes newly available evidence, because phenolphthalein testing was available to the defendant at the time of trial. See Commonwealth v.

DiBenedetto, 475 Mass. 429, 435 (2016) (phenolphthalein test performed in 1993). See also Grace, 397 Mass. at 306 (newly available evidence must be "unknown to the defendant or his counsel and not reasonably discoverable by them at the time of trial" [emphasis added]). Nonetheless, even if we were to assume that the phenolphthalein testing constitutes newly available evidence, at best, the phenolphthalein testing, similar to the new STR DNA testing, would be useful only to impeach Bunnell's testimony. Cf. Cowels, 470 Mass. at 620 (test that would exclude definitively defendants and victim as source of DNA profile, and instead would point to unidentified male as source of DNA, would not merely reduce weight that jury might give evidence, but instead would also bar admission of such evidence). The phenolphthalein testing would serve only as a competing presumptive testing, and similar to the STR DNA testing discussed supra, it would not bar the admission of Bunnell's testimony and handwritten notes on the ortho-tolidine testing that she conducted prior to trial. Cf. id.

Furthermore, as we discussed supra, Bunnell's testimony on the ortho-tolidine testing was already extensively impeached, and any additional impeachment evidence would be cumulative evidence and likely would not be a real factor in the jury's deliberation. See Teixeira, 486 Mass. at 641. See also Commonwealth v. Moore, 489 Mass. 735, 749 (2022) (new evidence

at best would provide alternate ground for impeachment and, thus, would not be real factor in jury's deliberations). We conclude that the additional evidence of negative phenolphthalein testing does not cast real doubt on the justice of the defendant's conviction. Sullivan, 469 Mass. at 350-351.

5. Confluence of factors. The defendant argues that there exists a confluence of factors that act in concert with the newly available evidence to warrant the granting of a new trial pursuant to Mass. R. Crim. P. 30 (b). See Commonwealth v. Rosario, 477 Mass. 69, 77-78 (2017). According to the defendant, those factors include that (1) the original forensic evidence was not reliable; (2) the jury should not have heard the telephone calls between the defendant and the victim that were intercepted illegally by the victim's neighbor; (3) the murder possibly was committed by two people; (4) it was "impossible" for the defendant to be the murderer; and (5) the jury did not hear from the defendant's alibi witness, the defendant's girlfriend.

"If a defendant fails to raise a claim that is generally known and available at the time of trial or direct appeal or in the first motion for postconviction relief, the claim is waived." Rodwell v. Commonwealth, 432 Mass. 1016, 1018 (2000), citing Commonwealth v. Ambers, 397 Mass. 705, 707 n.2 (1986). Here, nothing in the record suggests that these arguments were

unavailable to the defendant at the time of trial, his direct appeal, and his first motion for postconviction relief; where the defendant either failed to raise these arguments in a timely fashion, or now attempts to relitigate issues that already have been addressed,²² the arguments are waived. See Rodwell, supra. See also Mains v. Commonwealth, 433 Mass. 30, 33-34 (2000).

6. Discovery motion. The defendant argues that the judge abused his discretion in implicitly denying his motion for postconviction discovery. The defendant sought telephone records, search warrant records, criminal history records, and police records that he believed supported his alibi and third-party culprit claims. The discovery relates to the defendant's purported alibi witness, a claim that already has been waived by the defendant and addressed on Federal habeas corpus review. See Duguay v. Spencer, 791 F. Supp. 2d 271, 271-272 (D. Mass. 2011).

²² The defendant previously raised the argument about the illegally intercepted telephone calls in a prior pro se motion for a new trial, which already was denied on grounds of waiver. The defendant also raised the argument concerning the alibi witness on Federal habeas corpus review. Duguay v. Spencer, 791 F. Supp. 2d 271, 271 (D. Mass. 2011). The failure to call the alibi witness manifestly was not unreasonable, however, and did not give rise to an ineffective assistance of counsel claim, because trial counsel made a strategic decision not to call the witness after speaking with her on numerous occasions and learning that her testimony would not help the defendant. Id. at 271-272.

The defendant also believes that the discovery could confirm the defendant's belief that the victim and Gerome Bradley were codefendants in a breaking and entering case committed shortly before the victim's murder, thus giving Bradley a motive to kill the victim. The defendant's third-party culprit defense is entirely speculative, however, and evidence of a third party's ill will or possible motive is insufficient to support a defense under the third-party culprit doctrine.²³ Commonwealth v. Andrade, 488 Mass. 522, 533 (2021). At bottom, the defendant must make a prima facie showing that the materials sought reasonably are likely to lead to evidence that materially would have benefited his defense, and would have factored into the jury's deliberations. See Commonwealth v. Moffat, 486 Mass. 193, 207 (2020). Where the defendant provides nothing more than mere speculation as to what the requested discovery likely would lead, we discern no abuse of discretion in the motion judge's implicit denial of the defendant's postconviction motion for discovery.

²³ The defendant also must prove that the alleged third-party culprit had the motive, intent, and opportunity to commit the crime. Commonwealth v. Silva-Santiago, 453 Mass. 782, 800 (2009). The defendant does not do so here. See Commonwealth v. Andrade, 488 Mass. 522, 533 (2021) (third-party culprit evidence inadmissible when it is neither "rare" nor "unique" and "lack[s] probative value, [is] unduly prejudicial, and [is] likely to divert the jury's attention").

Accordingly, we affirm the denial of the defendant's motion for a new trial and his motion for postconviction discovery.

So ordered.