STATE OF MAINE	**CRIMINAL ACTION**
KNOX COUNTY	**Docket No. KNOCD-CR-89-71**
STATE OF MAINE)	
) Filed with ShareFile on 7/15/24	
v.)	
)	
DENNIS DECHAINE)	

DENNIS DECHAINE'S POST-HEARING MEMORANDUM ON DNA EVIDENCE

As in *State v. Dechaine*, 2015 ME 88, 121 A.3d 76 (Me 2015), the Petitioner is proceeding under 15 M.R.S. §2138(10)(C):

> If the results of the DNA testing under this section show that the person is not the source of the evidence, the person authorized in section 2137 must also show *by clear and convincing* evidence that:
>
> C. All of the prerequisites for obtaining a new trial based on newly discovered evidence are met as follows:
>
> (1) The DNA test results, when considered with all the other evidence in the case, old and new, admitted in the hearing conducted under this section on behalf of the person would make it *probable that a different verdict* would result upon a new trial;
> (2) The proffered DNA test results have been discovered by the person since the trial:
> (3) The proffered DNA test results could not have been obtained by the person prior to trial by the exercise of due diligence;
> (4) The DNA test results and other evidence admitted at the hearing conducted under this section on behalf of the person are *material to the issue as to who is responsible for the crime* for which the person was convicted; and
> (5) The DNA test results and other evidence admitted at the hearing conducted under this section on behalf of the person are not merely cumulative or impeaching, unless it is clear that such impeachment would have resulted in a different verdict.
>
> . . . .
>
> For purposes of this section, "all the other evidence in the case, old and new," means the evidence admitted at trial; evidence admitted in any hearing on a motion for new trial pursuant to Rule 33 of the Maine Rules of Criminal Procedure; evidence admitted at any collateral proceeding, state or federal; evidence admitted at the hearing conducted under this section relevant to the DNA testing and analysis conducted on the sample; and evidence relevant to the identity of the source of the DNA sample.

Here, the Petitioner is entitled to a new trial because the new DNA test results and the analysis presented at the April 2024 hearing are material to the question of who is responsible for the crime; and, based on their materiality, together with all the evidence, old and new, would probably result in a different verdict. *See State v Dechaine*, 2015 ME 88, ¶30, 121 A.2d 76, 94. Additionally, pursuant to the statute, there is no dispute (a) the new DNA test results were obtained after the trial, (b) they could not have been obtained prior to the trial in the exercise of due diligence, and (c) the evidence is not merely cumulative or impeaching.[1]

The burden of proof is by clear and convincing evidence, which means that the evidence makes the facts highly probable. *See State v. Dechaine*, 2015 ME 88, ¶13, 121 A.3d at 90.

At Dennis Dechaine's trial for murder, in 1989, the prosecutor told the jury that the blood found under all ten of the victim's fingernails was her blood and hers alone. TT at 719-20. The fingernails containing the blood were photographed at the crime scene by crime scene investigators and are shown in Defense Exhibit 3A [attached hereto]. The male DNA found in the extract from the bloody thumbnail was conclusively not Dennis Dechaine. The single male profile found in the thumbnail extract is consistent with a profile from another significant piece of evidence, the scarf used to strangle the victim. These facts strongly suggest that the profile came from the true perpetrator of the crime and undermine the prosecution's theory of contamination. The new DNA test results are material to the issue of who is responsible for the crime and would have substantially impacted the jury's understanding of the significance of the

[1] As the Court is no doubt aware, having granted Petitioner's request for DNA testing, the test results were obtained in 2022, which is long after the 1989 trial. The test results could not have been obtained prior to trial in 1989 because the M-VAC collection system and the Y-Filer Plus and GlobalFiler amplification kits were not invented yet. Also, they could also not have been obtained before trial because the prosecution opposed and the court denied the defense motion for an early version of polymerase chain reaction DNA testing at a motion hearing on January 27, 1989. *See* Tr.Hg. 1/27/1989. Finally, the new DNA results are not merely cumulative or impeaching because they introduce a whole new field of substantive evidence that was unavailable to the jury in 1989. These elements were not considered disputed in *State v. Dechaine*, 2015 ME 88, 121 A.3d 76.

blood under the fingernails. Evidence that at the trial was passed over and brushed off as inconsequential would now be seen by the jury as having major exculpatory implications. With this new information, the jury would likely have concluded that the victim dug the assailant as he was strangling her with the scarf and that whoever committed the crime left the woods on that 90-degree day covered with forest floor debris and ten dig marks on his arms, hands, or face. Dennis Dechaine, who was photographed by the police showing how he appeared at approximately 8:30 p.m. July 6, 1988 in Defense Exhibit 5A [attached hereto], shows no sign of forest floor debris or 10 dig marks. With this new understanding of the evidence, together with the DNA exclusions (see infra) to match the absence of fingerprints, hairs, fibers, or blood samples linking Dennis to the crime scene and the victim to Dennis, make it probably that a different verdict would result.[2]

This post-conviction motion is a continuation of Mr. Dechaine's ongoing effort to complete testing of items that were the subject of hearings in 2012 & 2013 and the Law Court opinion in *State v. Dechaine*, 2015 ME 88, 121 A.3d 76. In that decision, the Law Court found the DNA results insufficient to grant relief because the unknown male DNA from the thumbnail extract was not linked to any piece of crime scene evidence:

> (2) there was no evidence that unidentified male DNA found on one-half of the victim's left thumbnail (discussed in detail infra), which did not come from Dechaine, was connected to her murder; (3) concerning the left thumbnail DNA the testimony of Catherine MacMillan, a Maine State Police Crime Laboratory forensic DNA analyst, and that of two additional experts in DNA analysis, was "credible and persuasive" when those witnesses opined that contamination of the sample in the circumstances of this case was likely; [and] (4) contamination of the left thumbnail sample was further suggested by the fact that the DNA on the nail did not match male DNA found on other items closely related to the crime that were the subject of the November 2013 hearing . . .."

[2] The statute refers to a "different verdict." Not-guilty would be a different verdict. So, too, would a hung jury.

State v. Dechaine, 2025 ME 88, ¶10, 121 A.3d at 89. Because the thumbnail DNA was not connected to any crime scene evidence, expert testimony of "grungy" conditions in the morgue was credited as supporting that the DNA came from a pair of fingernail clippers used in an autopsy pre-dating Sarah Cherry. *Id*. ¶32. The Law Court also noted the lack of exclusions excluding Dennis Dechaine as a contributor to crime scene evidence. *Id*. ¶33.

By this Court's Order On Motion for Further DNA Testing (7/22/2022), Defendant was granted the opportunity to collect and test DNA collected from four crime scene items that were tested in 2012-2013 and two additional items that the perpetrator handled.[3] At the direction of the AGA, the items were sent to SERI Laboratories, in Richmond, California, the prosecutor's choice. The M-VAC wet-vacuum collection system was used to collect the DNA. Mr. Gary Harmor, SERI Lab Director, interpreted the results. He also agreed to the Cybergenetics results. All the experts at the recent hearing attested to their basic agreement with Harmor's conclusions.

The M-VAC collection device and the newer, more sensitive testing software, such as YFiler-Plus, finally produced the exculpatory results Dennis Dechaine, his family, and his friends had always expected and long awaited. First, the unknown male DNA in the bloody extract was included on the murder weapon, the scarf, establishing the missing link identified in the 20215 decision. Second, Dechaine was excluded from crime scene evidence from which the less exacting tests of 2012-2013 had not excluded him. His inclusion on two items can be most plausibly explained, in light of all the other exclusions, as the result of DNA carried to the crime

[3] The two additional items were the rectal stick and the vaginal stick. Both had been swabbed at the Maine Crime Lab, but no DNA sample was collected. Thus, there were no results to be at issue in the 2012 and 2013 hearings. Petitioner believed that the M-VAC collection system would have a better chance of gathering DNA.

scene by the perpetrator's handling of items stolen from Dennis Dechaine's unattended truck. See infra.

Item	Amplification Kit	Results Description	Conclusion
Vaginal Stick (Item 1-1)	Yfiler™ Plus	Weak and incomplete YSTR mixture from three male contributors with no major contributor.	Dennis Dechaine could be a contributor. Inclusion probability = 1 in 53 males.
Rectal Stick (Item 2-1)	Yfiler™ Plus	Weak and incomplete YSTR profile.	Dennis Dechaine is excluded.
T-Shirt (Item 3-1)	GlobalFiler™	DNA mixture with limited support for inclusion of Sarah Cherry.	Dennis Dechaine cannot be included or excluded as a contributor to the mixture by SERI, but is excluded by Cybergenetics using TrueAllele.
Bra (Item 4-1)	GlobalFiler™	DNA mixture with four contributors, at least one male and one female. Strong support for Sarah Cherry as a contributor.	Dennis Dechaine is excluded as a contributor to the mixture by SERI and Cybergenetics.
Scarf (Item 5-1)	Yfiler™ Plus	Weak and incomplete YSTR mixture interpreted as originating from four males.	Dennis Dechaine could be a contributor. Inclusion probability = 1 in 119 males.
Handkerchief (Item 6-1)	Yfiler™ Plus	Weak and incomplete YSTR mixture from 2 males	Dennis Dechaine is excluded as a contributor.

Ultimately, the new DNA test results provide the jury with a basis to question the prosecution's forensic claim, which was that the victim did not struggle with her attacker and that the blood under her fingernails would therefore contain no valuable biological trace

evidence leading to the identification of the perpetrator. As shown below, the single profile nature of the unknown male DNA from bloody thumbnail extract and a proper reading of Dr. Roy's autopsy report (together with much other trial testimony about the crime scene) suggest that the DNA probably came from the blood portion of the extract and not the fingernail portion. This probable source suggests that the male DNA is that of the perpetrator, whose blood was trapped beneath Sarah Cherry's fingernails when she dug her attacker. The DNA is definitively not that of Dennis Dechaine. This and other definitive exclusions from crime scene evidence support Dennis Dechaine's trial testimony that his proximity to the crime scene was a terrible coincidence and, further, that he never made any statements intending to incriminate himself in a murder he knew nothing about except what he heard from the detective and on the news.

ARGUMENT

1. Petitioner has carried his burden to show that a jury would probably conclude that the single, unknown male DNA profile found in the extract from the bloody thumbnail came from the blood portion of the extract (and not the fingernail portion), and that the blood was that of Sarah Cherry's killer. Since the DNA is definitively not that of Dennis Dechaine, this evidence would most probably result in a different verdict.

The unknown male DNA from the blood under the victim's thumbnail is material to the issue of who is responsible for the crime because a jury could find that the DNA probably came from the blood, that the blood probably came from the killer, and that the DNA was probably not contamination from a source unrelated to the crime. While it is a truism of DNA science that DNA does not contain any markers that definitively disclose the substance it came from (e.g., blood versus skin versus saliva) or how or when it got on a piece of crime scene evidence, the circumstances of the case can provide a basis for making reasonable judgments. The fact that the unknown male DNA did not 'necessarily' come from blood does not rule out a jury question that it probably did.

First, the photo of the victim's hands shows the blood under the fingernails, her hands are tied with the fingers in a grab/grip posture, in the same location where the killer's hands would have been to tie and hold the strangulation knot. Defendant's Exhibit 3A [attached hereto]. The jury could see the relationship between the victim's hands, the killer's hands, the knot in the scarf, and the blood under her fingernails. The blood under the fingernails came from her digging her assailant as he was holding the strangulation knot.

From that point forward, the jury would be told that in order for the victim to have gotten blood under her fingernails from her own blood as she struggled with the scarf, she would also have gotten her own blood on her hands and fingers and fingertips. In Dr. Roy's autopsy report he reported examining the hands. See Defense Exhibit 3A. Dr. Roy testified that there was blood under her fingernails. TTv at 578. State forensic chemist Judith Brinkman also testified at a pretrial hearing in January 1989 that she found blood "[u]nder each of the fingernails . . . from the right and left hands it was found that there was human blood." Tr. 1/27/89 Hearing, at 19.[4] Dr. Roy testified that he clipped all 10 fingernails because there was blood beneath them. He makes no mention of there being any blood on the victim's hands, fingers or fingertips, or even on the surfaces of her fingernails. He reported seeing only blood *under* all the fingernails.

Further, only human blood was found under the fingernails, no scarf fibers. Scarf fibers were only found in the victim's palms, evidence that she pushed the scarf up, forcing the first knot to be up around her mouth. TT. at 767: 19. The lack of trace evidence, i.e., blood or fibers, to support the prosecution's theory of the blood being hers alone was ignored and any alternate

[4] Brinkman testified, "So, I used the nails with the blood adhering and I had to use up eight of the ten." Tr. 1/27/89 Hearing, at 21. That left only the two thumbnails to be tested in future. She acknowledged that there was a possibility that the A and H antigens found in the blood could have come from somebody with a type O blood. *Id.* 20. Sarah's was Type A. *Id.* Type A and Type O blood together encompassed 86% of the human population. *Id.* at 21. However, the prosecution did not want to upset their assumption that the blood under her fingernails was Sarah Cherry's alone. Their confirmation bias inclined them in favor of any conclusion that supported Dechaine's guilt, and disinclined them against pursuing any investigation that might point to a different suspect.

theory was not considered by the prosecution. This refusal to consider alternative theories is an obvious example of how the investigation was tainted by confirmation bias from the start.

Second, the prosecution's claim that the blood under the victim's fingernails was hers alone is not supported by their other evidence of how the girl died and the condition of her body at death. Their hypothesis was that the victim, with her hands bound at the wrists, put her fingers down between her neck and the scarf as the killer was tightening the scarf to strangle her. Her fingers came in contact with bleeding on her neck: "She could have been trying to pull the ligature away and gotten blood under her fingernails . . ." T.T. at 580: 15-16.

The prosecution's hypothesis about the source of the blood is contradicted by the evidence in several key respects. Most importantly, Dr. Roy's autopsy report made no mention of any blood on the surface of her fingers or her hands. Rod Englert explained:

> I've tried to really explore this to make sure, is the blood, according to the medical examiner and the lab technician, Brinkman, that the blood is under the short little fingernails.
>
> And Dr. Roy's report is very thorough. I mean he did a very good job. I read autopsy reports all the time. This was lengthy, seven pages long, and very descriptive. He never described on the fingers blood, on the knuckles, on the palmer surfaces, no blood whatsoever, only underneath the fingernails. *And that's significant*.

Vol. I at 179-180.

Rod Englert's reasonable inference is that if there were blood anywhere else on her hands and fingers (in addition to being under her fingernails), the meticulous Dr. Roy would have included that crucial information in his report. The Court can safely draw the same conclusion. The Court can also view the photograph of the victim's hands taken at the autopsy and see that there is no apparent blood on the visible portions of the surface of her hands and fingers. Defense Exhibit 3A [attached hereto].

Rod Englert explained that the prosecution's explanation, therefore, makes no sense. "Now, as an example, you can leave that courtroom and go into the bathroom and try to get . . . water under your fingernail, you can't do it without getting it on the palmer [sic] surface or the knuckles in and around that. *It cannot be done*." Vol. I at 181: 16-21. The key phrase, "cannot be done," is strong language. Coming from a crime scene investigator of Detective Englert's extraordinary experience and expertise, this assessment is decisive.

A particularly credible feature of Rod Englert's opinion is that he takes Dr. Roy's autopsy report more into account than the prosecution does. Detective Englert's explanation accounts for the observations in the medical examiner's report better than the prosecution does.

> Counsel: Would you describe what you're seeing here for blood under her fingernails . . ?
>
> Englert: Looking at the photograph can be deceptive, but it doesn't appear that there's any [blood] on the knuckles. There is a dark line. That doesn't necessarily mean it's blood by just looking at the photograph. But in the autopsy report and the lab report, it is blood underneath the fingernails, correct.
>
> Counsel: No blood on the hands and no blood on the . . . pads?
>
> Englert: None. None *observed*. And none *reported*.

Vol. I at 184: 16-25. The key statements are, "None observed. And none reported." Rod Englert's point is that if Dr. Roy did not report seeing blood anywhere on her hands except beneath her fingernails, the Court can conclude that there was no blood anywhere on her hands except under her fingernails.

Another reason that Englert's explanation accounts for the prosecution's evidence better than the prosecution is that Dr. Roy's testimony was clear that Sarah Cherry's neck wounds bled very little. TT 568:25 – 569:5 (not much external bleeding). The shallow cuts were small with no blood at all. TT: 576:25 – 577:2. The cut to the jugular, which might be thought to have

produced bleeding, did so only internally. TT 568:25 – 569:5. There was, therefore, very little external bleeding for the victim's fingers to come into contact with. It is counterintuitive to suppose that very little external bleeding would become packed under her fingernails and not be seen at all on hand's surfaces.

The most plausible explanation for there being no blood on the victim's hands but only under her fingernails is that the blood came from the terrified victim digging her fingernails into her assailant as he came within reach when he strangled her. She was in position to dig her nails into his hands, wrists, forearms, or even face, when he bent close to pull the scarf tightly around her neck. This means of blood getting under her fingernails, i.e., digging, clawing, was directly supported by Dr. Roy's trial testimony.

> Prosecutor: Did you find any flesh or skin adhering to the fingers?
> Dr. Roy: I didn't see any.
> Prosecutor: The absence of such would be suggestive of what, if anything?
> Dr. Roy: Well, the presence of it would indicate scratching. You are going to take skin before you take blood.
> Prosecutor: So, conversely the absence of it indicates the digging into oneself or somebody else?
> Dr. Roy: Yes. I would agree with that.

TT 688:21-698-4. Although Dr. Roy suggested digging as the agency, this line of questioning was not pursued by either side at the trial. The jury could reasonably consider this explanation to be a more probable explanation for how the blood came to be under all ten fingernails.

Detective Englert's opinion is also based on what the record shows about the likely positions of the killer and the victim when the strangulation was done. Dr. Roy's testimony was very clear that the victim was strangled from the front. TT at 591:2. Working from that premise, Englert described how the strangulation happened:

> In my opinion, that he would be seated on her somewhat bent over with his knees on the ground, toes on the ground, to be able to do the strangulation. It would be difficult to do standing up, but I'm not saying it couldn't be done, to bend over and tie that. But

> the hands had to be down and around, whether he's standing, seated, or whatever, with - close to her hands, where her hands have been placed there forcibly by the ligatures around her - the rope around her wrists.

Vol. I at 190: 9-19. As the victim lay on her back, the killer straddled her to control her. As he reached to tie the knot in the scarf, she dug him with her nails in a frantic effort to stop him.

Third, evidence that Sarah Cherry struggled with her murderer provides the motive and opportunity for her to dig her nails into her assailant. As Rod Englert testified, "[T]here is definitely a struggle there." Vol. I at 188: 12-13. There was ample opportunity for her to wound her assailant and get his blood under her fingernails.[5]

Englert referred to numerous signs of struggle. The contusions on Sarah's arms and body, her hands being tied together, the grab marks on her t-shirt, all show that the victim had to be manhandled to be controlled:

> [T]here was a struggle because of the blunt trauma, because of hands being tied together, because of what they called pinning. I've never heard the word "pinning," but it was described to me what they meant was grabbing. I call it a grab mark. And that indicates that there was a struggle, a resistance.

I: 179: 7-14. The gag in the victim's mouth also creates the inference of resistance, as does the fact that one strand of the scarf appeared to have been pushed up from her neck over her mouth by Sarah in her resistance. "But it's double wrapped [i.e., the scarf] and one wrap is around the mouth, which is consistent with Sarah Cherry pushing up, that wrap goes over her mouth, which is already gagged, which is part of the struggle. And then her hands have transfer of scarf threads

[5] It is possible, of course, that Sarah wounded her assailant before her hands were tied. Her digging him could have been the reason the killer bound her hands. It was the prosecution's theory that the blood got under her fingernails (but nowhere else on her fingers or hands) when she put her fingers under the scarf to try to loosen it after she had been cut on the neck and was being strangled. So, it is the prosecution's theory that focuses the explanation on the moment in the crime when the victim is pinned on her back with the scarf around her neck. Englert's point is that even focusing on that moment, the moment of the prosecution's choosing, there is opportunity for the victim to dig her assailant with her nails. There is nothing in the record, however, that says she could not have dug him sooner. It was the prosecution's confirmation bias that led them to insist that all the blood under her fingernails could only be her own, which caused them to focus on the scarf-loosening efforts.

within the palmer surfaces, as the person is trying to tie, and she is able to defensively scratch, claw, or receive that blood underneath the fingernails." Vol. I at 187.

The pinning on the girl's t-shirt was originally noted by State Forensic Chemist Judith Brinkman at the trial. Other trial testimony by Dr. Roy established a factual basis, if one were needed, to opine that the victim struggled for her life. Dr. Roy pointed out contusions on her arms, i.e., "left arm around the elbow and the right arm around the elbow and the front, right around the front, " T.T. 577: 7-9. Such bruising "generally come[s] from blunt impact or force . . . forceful gripping and pulling." TT. at 577: 21-24. A jury could reasonably conclude that this rough handling was required to control her because she resisted.

Further evidence of struggle came in Dr. Roy's testimony that blood from wounds on the victim's left side made its way onto the right side and soaked her t-shirt because of the turning movements of her body. TT. 573:1-4 ("Blood does not run uphill") & 589:22 – 5990:3. One can easily imagine the terrified girl twisting and turning her torso as she frantically resisted her killer. The prosecution's confirmation bias was so strong that it caused them to deny the most fundamental tenet of human existence, that a person who is being strangled will act on the instinct for self-preservation and fight back.

Fourth, the fact that the unknown male DNA is a single profile, i.e., a single sample from a single male, is consistent with the DNA coming from blood. Vol. I at 113: 21-24 (Dr. Staub testimony). It is more consistent coming from blood than from the outside of a thumbnail, with its exposure to random contamination from many sources. *Id*. Defense Attorney Tom Connolly's testimony was admitted at a 2012 hearing on DNA in this case that Dr. Bing had told him that the DNA that his lab found from doing the DQ alpha test came from blood. "He told me that the DNA that he found in there was like a drop of chocolate in milk, so the chocolate milk is mixed

in thoroughly, it wasn't on the surface [of the nail], it was in the liquid blood that dried. Liquid. It dried liquid at the time. And he could tell there was no contamination . . ." 6/12/2012 Hg.Tr. at 161:23-161:2.[6]

Finally, Dr. Roy clipped Sarah Cherry's fingernails to preserve them precisely because fingernails are a likely place to find biological traces of an assailant. "In this case I did fingernail clippings because there was blood." TT at 579: 18. The fact that a veteran medical examiner's instincts on seeing blood beneath the fingernails were to clip the fingernails lends credence to the idea that the blood came from the assailant.

In conclusion, a jury could rationally conclude that the blood beneath the victim's fingernails came from the killer, and that the single male DNA profile found in the extract from the bloody thumbnail came from the blood. Crime scene investigation assumes that the killer's blood would be under the victim's fingernails. Rod Englert's analysis is consistent with Dr. Roy's testimony that there was no scratching but there could have been digging. It is consistent with the physical positioning of the killer in front of and over the victim, bringing the killer's hands, wrists, forearms, even face, within striking distance of her fingernails. It is consistent with the ample evidence of struggle supporting that Sarah Cherry resisted being murdered. The single male DNA profile is consistent with the DNA coming from blood, more so than from random contamination on the surface of the thumbnail. The unknown male DNA was, therefore, most probably the killer's.

This probability is increased by the inclusion of unknown male DNA from the bloody thumbnail on the murder weapon, i.e., the scarf, which the killer held on to tightly for four

[6] Although arguably hearsay, this evidence was admitted without objection, thereby becoming consent evidence. The prosecution presumably believed the testimony to be reliable.

minutes or more to complete the strangulation. The inclusion of the DNA on the scarf is addressed in the next section.

2. The Petitioner has carried his burden to provide clear and convincing evidence from which a jury could find that the unknown male profile from the thumbnail was also present on the scarf, i.e., the murder weapon, thus cementing the tie between the DNA and the crime.

Dr. Staub, Gary Harmor, Cathy MacMillian, and Meghan Clement agree that the unknown male DNA from the bloody thumbnail is included on the scarf. Vol. I at 34: 20-25, 35: 1-4, 105: 7-19; Vol. II at 62: 23-25, 63: 1-6; State's Exhibit 13. The inclusion ratio is 1-in-33. *Id*. It represents "a probable inclusion of the Left Thumbnail DNA to DNA on the scarf that was used to strangle Sarah Cherry." Defense Exhibit 5, p. 3 (Dr. Staub's 3/19/24 revision opinion letter). This consensus among the experts who testified at the April 2024 hearing undermines the contamination defense raised by the prosecution at the last hearing. The Law Court wrote in 2015, "there was no evidence that the unidentified male DNA found on one-half of the victim's left thumbnail . . . was connected to the murder," *State v. Dechaine*, 2015 ME 88, ¶10 & ¶34. That piece is no longer missing. The new DNA test results link the bloody thumbnail DNA to the murder weapon. Dr. Staub's review of the below-threshold peaks from the 2012 electropherograms only increased his confidence that the inclusion is accurate. Tr. 4/18/24 Hrg. at 103:16-105.

The inclusion is based on the fact that the specific alleles that comprise the unknown male DNA are also found on the same locations in the mix of Y-chromosomes on the scarf. Because the scarf contains DNA from at least four different male Y chromosomes, however, the question must be addressed whether the inclusion is because a Y-chromosome from the unknown male is actually present on the scarf or whether the inclusion is coincidental due to the mixture of alleles and locations of Y-chromosome from four different males. The inclusion ratio addresses

this question. The actual presence of the Y-chromosome of the male whose DNA was in the extraction from the bloody thumbnail is thirty-three times more likely than not. This inclusion ratio is more than sufficient to provide a jury with a factual basis for finding that the unknown male DNA is that of the killer. Put another way, the 33-times-more-likely ratio provides a reasonable basis for the jury to consider the unknown male an alternative suspect, and it would be admissible for that purpose.

The following table is based on the SERI lab results, and is taken from Dr. Staub's Expert Opinion Letter, dated March 19, 2024. As Dr. Staub explained at the hearing, his table also contains supplemental information (italicized) that SERI Labs did not generate. Rather Dr. Staub gleaned the additional information from DNA tests that Cellmark Labs did in 2011 to produce the Y-STR profile of the Left Fingernail of Victim. Vol. I at 82 & 87.

Item No.	**5-1**		**14.01.1**
Description	**Scarf**		**Left Fingernail of Victim**
DYS576	16, 18, 19		NT
DYS389I	13		13
DYS635	21, 23, 24		23
DYS389II	NR		NR
DYS627	20		NT
DYS460	10, 11		NT
DYS458	15, 16, 17, 18		17
DYS19	14, 15		14
YGATAH4	12	***(possible dropout)***	11
DYS448	19		19
DYS391	NR		11

DYS456	14,15,16		14
DYS390	23, 24		NR **(*23*)**
DYS438	11, 12		NR
DYS392	NR		13
DYS518	36		NT
DYS579	17, 18, 19		NT
DYS437	14, 15		15

DYS385	[11, 14]		11 **(*,14*)**
DYS449	31		NT
DYS393	13	***(possible dropout)***	12
DYS439	10, 11, 12		NR **(*11*)**
DYS481	23, 24		NT
DYS387S1	[36]		NT
DYS533	NR		NT

The inclusion of the unknown male DNA from the bloody thumbnail is based on the fact that the alleles found on the thumbnail are consistent with alleles found on the scarf at eight of the 17 locations that were tested on the scarf. Vol. I at 90-96. The "Left Fingernail" locations are those that report a number (DYS389I, -635, -458, -19, -448, -456, -437, -385). The locations that report "NT" are locations that were not tested in 2011 because the YFiler amplification kit that Cellmark used, though highly advanced at the time, was not designed to test for those locations. Vol. I at 88 & 89: 11-13. The locations that show "NR," for no result, are locations where the amplification kit was capable of testing for a result but the DNA analyst interpreting the electropherogram did not see enough to make a call.

Curious about the locations where an "NR" was reported, Dr. Staub checked the electropherograms from 2011. Being the Director of the Cellmark Lab at that time, he was intimately familiar with the protocols for declaring a result and eminently qualified to read and interpret the electropherograms.

> Dr. Staub: So, when I went back and looked at DYS390, I saw clearly there was a peak at the 23 base pair size, but we didn't call it because it was below - I think our calling threshold at that time maybe was 50 RFU's or something, and it was 30 something. But it was - it was there for sure. So, I just added it to show even more corroboration, even on stuff that we didn't call, there were markers there - there were markers there that also were found in the scarf.
>
> Counsel: . . . So there was a peak that looked for all the world like it was on the way to being a 23, but didn't quite make it?
>
> Dr. Staub: It didn't quite get high enough, right. *It was there for sure.*
>
> Counsel: . . . So now on to DYS385 there's a 14 written in red [on Dr. Staub's chart]. Was there a similar - a similar analysis done by you there, too?
>
> Dr. Staub: Yes. *There was also a 14 peak next to the 11 peak i*n that sample. We saw - we called the 11 but we didn't call the 14.
>
> Counsel: . . . And the same down with DYS439?
>
> Dr. Staub: Yeah, there was a very - a nubbin of a peak at 11, *but - something tried to amplify there*.

Vol. I at 103-104. This electropherogram was provided to the prosecution in connection with the 2012-2013 hearings and again prior to the recent hearing.

The prosecution found fault with Dr. Staub for talking about the below-threshold peaks but never actually cross-examined him on the electropherogram itself. Cathy McMillian testified to looking at below threshold readings in a prior hearing. Tr. 6/12/12 Hg. at 231: 1-6. As she explained then, but seemed to forget at the present hearing, interpreting below threshold peaks is a judgment call that DNA analysts are competent to make. Dr. Staub was the Director of the

Cellmark Lab at the time the electropherogram was read. He is eminently qualified to interpret a below-threshold result obtained by the lab he supervised.

The effect of the below threshold readings is to increase Dr. Staub's confidence in SERI's conclusion that the unknown male profile is in fact thirty-three times more likely than not to be actually present on the murder weapon. However, if a DNA analyst were to recalculate the inclusion ratio, taking the three below threshold alleles into account, then the inclusion ratio would obviously be higher.

The possible dropout noted at YGATAH4 and DYS393 (12 and 11, and 12 and 13, respectively) were factored into Gary Harmor's analysis, which both Megan Clement and Kathy McMillian accepted, so there should be no dispute about those. Dr. Staub explained what DNA analysts mean by "allelic dropout":

> A dropout refers to an allele that is there but doesn't get amplified in reaction, for some reason, either too degraded or something . . . And we know that happens in low level samples.

Vol. I at 99. As to why a DNA analyst would be apt to presume drop out rather than declare an exclusion, Dr. Staub explained:

> Well, when there is an incredible amount of matching in the sample but all of a sudden you see one locus that has that issue, you have to think of it this way, hey, wait, there's four people that are here and it could be the 11 is in there but just dropped out and we don't see it in the sample. So you can't - you can't exclude based on that if there's four people in the mix. . . . Well, we know the scarf is already touched by - or has been used or DNA is left on it by several individuals. Also . . . Dennis Dechaine is included in the same way as a contributor to the scarf and he has some drop outs as well.

Vol. I at 97: 13-20 & 98:22 - 99:2. Dr. Staub points out that Dechaine was included on the scarf on the basis that drop out occurred so that the discrepancy was not seen as a basis for exclusion.

Dr. Staub testified that in his view it was a distinct possibility that the unknown male from the bloody thumbnail shed his DNA on the scarf. Vol.I at 105:10-15. He went on to say: "I

l*ean heavily* toward the fact that that person - that same person also was on the scarf." *Id*. at 105:15-19. When asked by the Court whether he could express his opinion in terms of a magnitude, Dr. Staub referred to Gary Harmor's 1-in-33 inclusion ratio. Dr. Staub added: "But you also have to keep it in perspective, you know, what we're trying to figure out, we're trying - this is a lead in a crime, that's the way I look at it . . . [I]f . . . there was no suspect in the case . . . [detectives] would push very hard to get the lab to help them with identifying this individual." Vol.I at 106. While the profile does not tell us exactly who is responsible, it is material to finding that person. The profile is highly material in telling us who is *not* responsible, Dennis Dechaine. The purpose of DNA exoneration is not necessarily to convict someone else, but to provide clear and convincing evidence sufficient to create reasonable doubt for a jury that someone other than the defendant committed the crime.

Dr. Staub's conclusions would likely impact the jury because as the only doctorate degree holder in genetics he clearly knows what he is talking about in terms of the science. He is also a crime scene investigation unit director. Thus, he not only has credibility from his academic credentials but also from his practical know-how in running a large metropolitan police force's crime scene investigation unit. It is worth noting that Cellmark Lab, which was managed by Dr. Staub, was the lab that the Maine Attorney General's Office turned to when they wanted DNA testing done on the Dechaine crime scene evidence in 2011-2013. Dr. Staub has done most of his work for the prosecution side of the criminal justice system, although he has also worked on DNA exonerations for Innocence Projects. Tr. 4/18/2024 Hg. at 76. His main interest is the non-partisan one of learning the truth about a case so the wrong person is not sitting behind bars:

> [M]y primary goal, always is to try to find the truth about - it's like solving a problem every time you do this, is the difficulty in any case. And so this - this case had been eating at me for 10 years, of what - what the heck is going on here, is it really

> contamination or not. Because if someone is sitting in prison because it hasn't been looked at carefully. . . .

Tr. 4/18/24 Hrg. 102:2-510. A jury would have every reason to find his opinion credible because it is born of a dispassionate, professional desire to get it right. His testimony would impact the jury.

Dr. Staub outlined how, in his opinion as a DNA analyst and a crime scene investigation unit manager, the single male profile could be used to find the suspect. "And it would have to be done with a CODIS search on the autosomal cell. And then moving on to when you find candidates from the CODIS search, you run this Y-STR test on them and determine . . . whether a person matches. And there will only be one that matches." Vol. I at 106-107. Dr. Staub testified that he looked up the unknown male profile and "it's been seen one time in . . . 390,000 individuals. So it's a fairly rare haplotype." Vol.I 107-108. Its rarity would enhance its value as a filter once a CODIS search had identified a list of potential suspects via autosomal DNA.

Petitioner, through counsel, has requested that the Maine Crime Lab run another CODIS search on the unknown male profile to supplement the search run many years ago. The State has refused. Petitioner is hereby requesting again the unknown male profile be used in a CODIS search. Petitioner requests not just a CODIS search of the Maine database but also any national database that can be accessed.

The 1-in-33 inclusion ratio fulfills the condition precedent that the Law Court had ruled was missing in 2015. The Court wrote "there was no evidence that the unidentified male DNA found on one-half of the victim's left thumbnail . . . was connected to the murder," *State v. Dechaine,* 2015 ME 88, ¶10 & ¶34. That piece is no longer missing. The new DNA test results link the bloody thumbnail DNA to the murder weapon.

3. Petitioner has carried his burden to show by clear and convincing evidence that the unknown male DNA from the bloody thumbnail is most probably not contamination. The fact that contamination is always a theoretical possibility cannot by itself, per se, deny Petitioner a new trial because then the Post-Conviction DNA statute would never be allowed to perform its remedial purposes.

The Law Court in 2015 upheld the denial of Petitioner's previous petition in part on the grounds that "there was ample expert testimony . . . that the DNA could have resulted from contamination at the autopsy or later." *State v. Dechaine*, 2015 ME 88, ¶32, 121 A.3d at 95. The case for contamination was "that at the time the fingernail clippings were originally taken they were potentially exposed to DNA unrelated to another crime coming from other bodies that the nail clippers had been used on; the tool chest that they were stored in; the bloody, 'grungy' towels that the clippers were laid on in the chest, or the examiners themselves, who wore no masks and only sometimes wore gloves." *Id*. ¶19, 121 A.3d at 91-92. The inclusion of the same unknown male DNA on the scarf substantially undermines the prosecution's contamination argument, as the Law Court implied such a result would. *Id*. ¶34.

Now, in light of the evidence presented at the April 2024 hearing, the source of contamination could only be someone who was in a position to contaminate *both* the thumbnail and the scarf. If the presence of this profile were the result of contamination, that person would have had to be a state investigator, as there are no other parties who would have had contact with both items. Dr. Roy, Robert Goodrich, Fern LaRochelle, and Detective John Otis were the most likely candidates because they were listed on the autopsy report as having attended the autopsy. t was not until all possible state investigator contaminators were tested and excluded that the prosecution threw its lab under the bus, blaming grungy conditions there. Dr. Roy has refused to testify in support of the State's position on this matter.

If the prosecution has known all along of other people who were in a position to contaminate both, they were under a court-ordered obligation to identify those people and, once

identified, to have them tested. They should not be allowed to rely on their default to deny Dennis Dechaine his right to a new trial based on the new DNA test results. Cf. *People v. Palmer*. 182 NE3d 672, 685-686 (Ill. 2021)

The inclusion of the bloody thumbnail DNA on the scarf substantially reduces the likelihood of contamination. Dr. Staub had, in connection with prior hearings in 2013, developed a "working hypothesis that if DNA on the items closely associated with the victim also matched the left thumbnail DNA, then that finding would work against the possibility that the thumbnail DNA results from contamination. He agreed that the test results refuted that hypothesis." *State v. Dechaine*, 2015 ME at ¶25, 121 A.3d at 93. Thus, as this passage from the Law Court opinion showed, even back in 2011-13, Dr. Staub reasoned that the single-source nature of the profile from the bloody thumb extract cut against its being contamination. His opinion did not change. As he testified in April, "the fact that it's single source and now matches - or it cannot be excluded as a contributor to the scarf DNA to me is very, very important for me making that decision," i.e., that the thumbnail profile is not the result of contamination. Tr. 4/18/24 Hrg. at 110: 12-16.

Moreover, the 1-in-33 inclusion ratio also means that the results that SERI obtained from the scarf are 33 times better explained under the explanation that they include the unknown male rather than being deposited by a thirty-party as a result of contamination.

Finally, the precise basis for the Law Court ruling in 2015, that the DNA evidence was insufficient as it was likely the product of contamination, has now been directly refuted by the new DNA testing and analysis.

4. Petitioner has carried his burden to show by clear and convincing evidence that his DNA exclusions from crime scene evidence support a jury verdict that he did not

commit the crime since the evidence presented to the jury was already weak by the lack of a direct forensic and evidentiary connection to Dennis Dechaine, aside from objects stolen from his unattended truck.

"Trace Evidence examinations are based on the Locard Exchange Principle which states that any time two objects come into contact, there is an exchange of information. That exchange of information could be hairs in a sexual assault, paint in a hit and run, or glass in a breaking and entering." https://ncdoj.gov/crime-lab/trace-evidence/ (North Carolina Dept. of Justice). Locard's Principle can be paraphrased as, "every contact leaves a trace." Given the prosecution's theory of sustained, close contact between killer and victim playing out over hours on a sweltering summer day in a small, cluttered truck and in the woods of Maine, this crime would appear to be an obvious opportunity for Locard's Principle to support the prosecution's case. Yet no traces of Dennis Dechaine were found on the victim, and none of the victim were found on him or in his truck.

A straightforward application of Locard's Principle would lead a conscientious investigator to wonder whether Dechaine's proximity to the crime scene was indeed the coincidence that the defendant has always insisted it was. See Defense Exhibit 14, Rod Englert's expert report. Maine investigators no doubt expected forensic evidence to support their arrest of Dennis Dechaine, which was effected promptly after finding the body of Sarah Cherry on July 8, 1988. However, the investigation did not play out that way. To the contrary, the investigation failed at every turn to link Dennis Dechaine to the crime. The rush to judgment established a confirmation bias that has led the prosecution to deny Locard's Principle and to make excuses for the utter absence of trace evidence implicating the defendant.

Even at the trial, the prosecutor conceded in closing argument that there were no fingerprints, blood stains, hair samples or clothing fibers linking Dennis Dechaine to the scene of

the Henkels' residence or to the crime scene in the woods. [TT at 1412: 2-12] It was also made clear at the trial that there were no fingerprints, blood stains, hair samples or clothing fibers linking Sarah Cherry to Dennis' truck, which he was accused of using to abduct the victim and transport her to the scene where she was murdered and her body was found. [TT at 674, 752, and 770] The K-9 tracker brought to Dennis' truck on the night of July 6/early morning hours of July 7, did not give any indication that Sarah Cherry had been in the truck. [TT at 427]

Yet the prosecutor had no forensic, science-based answer for this lack of biological trace evidence. The best he could do was play on the Knox County jury's religious sympathies, telling them, "[T]he best answer I can give you is that's the way God made it." [TT at 1412: 11-12]

The potential for prejudicial impact from this highly improper bringing of God into the courtroom was unmistakable. "[T]hat's the way God made it" gutted reasonable doubt. "[T]hat's the way God made it" obliterated the wall between Church and State. "[T]hat's the way God made it" acquitted the jurors of their duty to deliberate conscientiously over the absence of evidence on this crucial point because it posited that the dearth was God's doing and therefore not to be questioned. "[T]hat's the way God made it" invited the jury to engage in irrelevant theological speculation. Worst of all, "that's the way God made it" violated judicial precedent from one end of this country to another excoriating the use of God to convict criminal defendants. The power and influence that God has in many people's lives is well known. God is thought to work in mysterious ways. It would not be unreasonable to suppose that many if not most of the jurors went home from the trial every night asking for God's help in deciding on a verdict. The absence of DNA established by the new tests would redirect their attention to the questions of forensic evidence.

Most tellingly, the prosecutor was worried about the weakness at the heart of his case. There was no actual physical evidence that Dennis Dechaine *himself*, as opposed to items stolen from his truck, had anything to do with the crime. Otherwise, the prosecutor would not have tempted reversal with this obvious impropriety. This Court should trust the prosecutor's understanding of the prejudicial impact that he obviously hoped "that's the way God made it" would have. The Court should also trust the prosecutor's concern about the hole at the center of his case.

It was not only the absence of forensic, biological trace evidence that should have troubled investigators. There were also important pieces of non-trace evidence that were absent from Dennis Dechaine but that should have been present on him, or with him, if the crime occurred as the prosecution claimed:

- ★ No forest debris in his hair or on his t-shirt, pants, or boots.
- ★ No dirt on his clothes or on his body, especially in his hair or under his fingernails. The crime scene photos make it implausible that anyone could carry or lead a struggling victim five hundred feet (almost two football fields) into thick woods on a sweltering July day, then get down in the mix of dirt and dried, dead leaves on the forest floor to strangle, torture, and abuse the girl, and then cover over her body with forest debris without picking up traces on his clothing or in his hair. Prosecution trial testimony was that it looked like the killer had thrown the dead leaves over the girl almost like a dog pawing the earth, sending the debris back between his legs. The dirt would have been imprinted in the whorls of his hands and under his nails if Dechaine had done that. Rinsing in a stream would not scrub them clean.

- ★ No history of criminal or violent behavior of the sort done to Sarah Cherry. To the contrary, Dennis was known for his peaceful, laid-back disposition.
- ★ No history of sexually aberrant behavior, including no history or indication of pedophilia;
- ★ No behavioral indications or weirdness that might have tipped the Buttricks off that Dennis had just committed a horrible crime. He was a perfect gentleman. They invited him into their kitchen for a glass of water when he offered to drink from the outside faucet and then Mr. Buttrick drove him around the neighborhood looking for his truck, because Dennis could not remember where he parked it.
- ★ No criminal history;
- ★ No pen knife was found despite exhaustive searching of the woods, at first for Sarah and then for evidence; and
- ★ No panties, which the killer had obviously taken pains to steal as a trophy/souvenir, first removing the victim's long pants before taking the underwear off her and then pulling her jeans back on up to her knees.
- ★ No motive.

Dennis Dechaine's exclusions from the DNA on the crime scene evidence, on which the perpetrator would likely have left traces on this hot summer day, is the culmination of the foregoing list of missing clues. He is excluded from DNA on the bra, which the killer touched; the bandana/handkerchief, which the killer balled up and stuffed in her mouth to quiet her; her t-shirt, with which the killer would have been in close contact and likely perspired on throughout the abduction and murder; and the rectal stick, which the killer handled after picking it up from the forest floor. This absence of evidence is very telling in itself. It is also telling because it augments and compounds the other absences of evidence usually relied on by police and

prosecutors to link a suspect to a crime scene. The absence of DNA corroborates Dennis Dechaine's testimony that he had nothing to do with the crime. The absence of DNA is also telling because its absence can never be verified by the naked eye. A suspect would only ask for DNA testing if he knew he was not there.

In this case, the absence of so much evidence directly linking Dennis Dechaine to the crime, apart from the circumstantial evidence, is powerful proof that he was not there.

5. The conclusion Dennis Dechaine "could not be excluded" from the mixture on the scarf or the mixture on the vagina stick is an outlier when considered against the weight of other exclusions, lack of trace evidence, and lack of other, non-trace evidence referred to above. This outlier is most plausibly explained by the Petitioner's ownership of the scarf, which was stolen from his unattended truck, and Dr. Roy's testimony that the perpetrator handled the vaginal stick immediately after gripping the scarf to strangle the victim.

Against the background of exclusions, Dennis Dechaine's inclusion (or "could not be excluded") on the scarf and the vaginal stick is most plausibly explained by secondary transfer. The scarf belonged to him. It, together with rope and the receipt with Dennis' name and address on it, were hijacked from his unattended truck, which was left on the side of the road in the vicinity of the crime scene for many hours that day and night. Since the scarf belonged to Dennis, his DNA would be expected to be there as background DNA from wearing the scarf in the past.

Dr. Staub explained the DNA from the scarf would be picked up by the hands of the killer when he held the scarf to strangle the girl, and then transferred to the vaginal stick when the killer put his hands on the stick immediately after he handled the scarf. Thus, Dennis's inclusion on the scarf becomes Dennis's inclusion on the stick, even though, as all the other exclusions bear out, he was never there.

A comparison of the Y-Filer Plus results for the scarf and the vaginal stick show that where the vaginal stick was found to have detectable alleles, there were one or more alleles in common with the scarf at the same location.

Locus on Y Chromosome	**Scarf (Item No. 5-1)**	**Vaginal Stick (Item No. 1-1)**
DYS 576	**16,** 18, **19**	**16, 19**
DYS 389I	**13**	**13,** 14
DYS 635	21, 23, 24	NR
DYS 389II	NR	NR
DYS 627	20	NR
DYS 460	10, 11	NR
DYS 458	15, 16, 17, **18**	**18**
DYS 19	14, 15	NR
YGATAH4	12	NR
DYS 448	19	NR
DYS 391	NR	NR
DYS 456	14, **15, 16**	**15, 16**
DYS 390	23, 24	NR
DYS 438	11, 12	NR
DYS 392	NR	NR
DYS 518	36	NR

DYS 570	**17, 18**, 19	**17, 18**, 20.1
DYS 437	14,15	NR
DYS 385	[11, 14]	NR

DYS 449	31	NR
DYS 393	13	NR
DYS 439	10, 11, 12	NR
DYS 481	23, 24	NR
DYS 387SI	[36]	NR
DYS 533	NR	NR

Defense Exhibit 2 (October 4,. 2022 SERI Report), page 4 of 4.

The fact that Item 1-1 was a random stick that the killer picked up from the forest floor, five hundred feet into the woods, makes contamination the only plausible explanation for how there were at least three different Y-chromosomes on it. See DYS 570 (three alleles). . The multiple Y-chromosomes were likely picked up and transferred by the one male perpetrator when he took his hands (possibly gloved) off the scarf and put one or both of them on the stick, inserting it into the victim's vagina. Unfortunately, the low level, degraded state of the DNA on the stick does not permit comparison with the thumbnail.[7]

The record built by the prosecution supports that this contamination occurred. Dr. Roy testified that the perpetrator went from the scarf to the vaginal stick as the final act. At that time, the victim was close to death.

Prosecutor: So insertion of both sticks before death?

Dr. Roy: Yes.

Prosecutor: How much hemorrhaging was there?

[7] At two locations (DYS576, DYS570), the thumbnail did not yield a reading because the YFiler amplification kit was not designed to read those markers. At DYS389I, both shared a 13 repeat allele in common. At DYS458 and DYS456, the vaginal stick did not show three alleles. Therefore, it cannot be known whether the allele on the thumbnail at that location was really present on the vaginal stick and dropped out, but the possibility remains.

Dr. Roy: There was not a great deal.

Prosecutor: What did the fact that there was hemorrhaging indicate that it was inflicted during life indicate to you?

Dr. Roy: It suggested that it was the possible *final* act. She may have been dying at this time. There was still evidence of circulation.

T.T. 583-584 (emphasis added). Rod Englert agreed, based on his review of Dr. Roy's autopsy report, testifying "paraphilia, in my opinion, was the last because of Dr. Roy's [autopsy] report." I: 192: 17-18. "[Dr. Roy] said there was no free flow of blood. But he did say that in the vaginal vault there was a contusion, and a contusion means the heart still has to be beating . . . So, I would say in his [autopsy] report, which was very thorough, that [paraphilia] would be perimortem [i.e., at or near the time of death]." *Id.* 191-92.

Thus, the expert testimonies of Dr. Roy and Rod Englert support that the killer handled the sticks soon after he finished with the scarf, and this sequence created the conditions for secondary transfer of the mix of male DNA on the scarf to the mix of male DNA on the stick. If Dechaine is included in the mixture on the stick, it is only because he was included on the scarf, which belonged to him and was taken from his truck. His inclusion on the stick has no bearing on whether he was the perpetrator.

The prosecution will no doubt contend that his inclusion on the murder weapon and the vaginal stick is inculpatory. The prosecution would be free to make that argument to a jury in a new trial. However, the material point for this motion is that the universe of other exclusions listed above, together with prosecution witness testimony about the order in which the victim was assaulted, creates a jury question on the issue of contamination. The defense should be allowed to make the case to a jury that any inclusion of him on the scarf or the vaginal stick is purely the result of the killer's hands transferring DNA from the scarf to the stick.

6. Petitioner has carried his burden to show by clear and convincing evidence that the new DNA test results, together with all the evidence old and new, would probably result in a different verdict.

Having shown that the new DNA test results are material to the question of who is responsible for the crime, the Petitioner must now show that those new DNA test results, when considered with all the other evidence in the case, old and new, make it probable that a different verdict would result upon a new trial. 15 M.R.S. §2138(10)(C)(1). There are two basic thrusts to the test results. One, the presence of a single unknown male DNA profile in the extract from the bloody thumbnail and in the mixture of DNA from the extract from the scarf. Two, Dennis Dechaine's exclusion from the crime scene evidence. These results are complementary but each may also be taken on its own. The jury's view of the prosecution's case would be so changed by either or both that a different verdict would almost certainly result.

Evidence that a single profile of unknown male DNA was in the blood under the victim's left thumbnail and also included on the murder weapon would constitute powerful admissible evidence of an alternate suspect. The inclusion of this single unknown male profile across two items closely connected to the murder directly contradicts the prosecution's contamination argument, which was the basis for the Law Court's previous decision.

The fact that the alternative suspect evidence is DNA would have a substantial impact. The prosecution ridiculed Dennis Dechaine's insistence that someone framed him. TT at 1410:15 –1411:4. Aside from questioning how 'convenient' it was that the one piece of scrap paper in Dechaine's overly cluttered truck that bore his name and address somehow 'fell' out of his truck to be immediately found by police responding to the Henkel's residence, the defense had no physical evidence with which to prove that he was set up. He denied under oath that he committed the crime and he introduced character evidence in the form of testimony to his

reputation in the community for peacefulness and non-violence. However, he had no affirmative physical evidence with which to counter the suspicious appearance of his proximity to the crime and the use of items stolen from his unattended truck. A Maine jury can understand "wrong place at the wrong time," but it becomes difficult when there is no proof of anyone else in position to commit the crime. Thus, the defense fought so hard to introduce evidence of Douglas Senecal as an alternative suspect. The trial court ultimately excluded the evidence as speculative. The DNA-based evidence of an alternative suspect generated by the new test results cannot be excluded as speculative.

The test results would also expose the *forensic mistake* that the prosecution made in presuming that the blood under the victim's fingernails was hers alone. The new test results compel a re-examination of the prosecution's hypothesis that the blood came from the victim's neck wounds. Expert testimony now shows that that explanation runs counter to the evidence and counter to how blood gets on things. Dr. Roy's testimony that the blood could have gotten there by the victim "digging herself *or someone else"* would lead the jury to conclude that the perpetrator left the crime scene with dig marks. Photographs and police observations of Dennis Dechaine on the night of July 6 do not show that he had such injuries. Defendant's Exhibit 5A [attached hereto]. Thus, the DNA evidence would change the jury's appraisal of a confluence of factors leading to conviction, not just the absence of an alternative suspect. Chief among the confluence was the forensic error that the prosecution made from the outset of the case by taking serology tests to mean that the blood under the victim's fingernails was hers alone.

Dennis Dechaine's exclusion from the DNA mixtures found on all the crime scene evidence, except for two items for which the most plausible explanation is innocent, provides further grounds for reasonable doubt that he did not commit the crime. Locard's Principle, that

every contact leaves a trace, compels the conclusion that no trace means no contact. A "not necessarily" response carries no weight in this case because of all different types of absences all of which add up to a chorus of voices that Dennis Dechaine did not commit this crime. The DNA exclusions are extremely probative evidence of absence not only because they cap off the long list of other biological and physical evidence that is missing but also because the prosecution's theory of the case emphasizes the killer's sustained contact with the victim. He abducted her from the Henkels' residence, he drove with her in his truck, he grabbed her by the t-shirt, he carried her 500 feet through the woods, he pulled down her jeans to remove her panties as a souvenir and then pulled the jeans back up to her knees, he lifted her t-shirt and fondled her bra, and he manipulated sticks in her orifices. Add to this intense physical contact the sweltering temperatures, which would cause perspiration, and it is deeply implausible that if Dennis Dechaine were the killer, his profile would not be included in the mixtures on the bra, the t-shirt, and the bandana or the single profile on the rectal stick.

The DNA exclusions are likely to be powerful for a jury because they would understand that the microscopic nature of DNA means no perpetrator could ever be careful enough not to shed DNA or to know that he did not shed DNA unless (for which there is no evidence in this case) he wore a Hazmat suit like Mark Wahlberg in *The Departed*. The absence of Dennis Dechaine's DNA is nothing he could have planned or foreseen. It just is. It would be taken seriously by a jury for that reason. "That's the way God made it" would not satisfy a juror where the absence of DNA evidence is concerned.

The DNA exclusions also provide a convincing basis for the jury to question prosecution claims that Dechaine made incriminating statements and would have cast this evidence in a new light. The Law Court cited that "police or corrections officers testified that Dechaine made

incriminating statements on three separate occasions within the space of several hours on . . . the pivotal day on which the body was found and Dechaine was placed under arrest" as part of the "substantial evidence" of the defendant's guilt. *State v. Dechaine*, 2015 ME 88, ¶3, 121 A.3d at 86. Thus, the impact of claimed incriminating statements was a major factor in the confluence of factors leading to his conviction. Yet the Law Court also cited the fact that "Dechaine's purported confessions contained no details of the crime" as among the reasons that the "voluminous record in this case raises troubling questions." *Id.* A jury would have viewed this evidence more critically in the light of the new DNA results suggesting the presence of a known male profile who is definitively not Dennis Dechaine on the victim's fingernails and on the scarf used to strangle her.

The fact that the DNA exclusions amount to evidence of absence would give jurors a reason to believe that he did not admit to a crime that the full gamut of biological evidence shows he did not commit. However, it would also let jurors see why he might have been less careful than he should have been in his initial contacts with police officers and jail guards. He had no experience with being prosecuted. He would have expected that the absence of evidence would ultimately protect him. So, he could afford to be flippant ("I'm the guy who [supposedly] killed the girl."). As the Law Court made a point of highlighting, there was no written or taped confession with details that only the perpetrator would know

The DNA evidence, both the exclusions and the inclusions, would expose for the jury the extent to which confirmation bias influenced the prosecution of Dennis Dechaine. "[C]ognitive bias, which drives individuals to seek confirmation of their preliminary conclusions and to ignore or subvert facts that contradict them, is as pervasive as it is problematic in the criminal justice system. It enables a faulty piece of evidence to taint the rest of the case, resulting in a 'cascade of

errors' and - potentially - the wrongful conviction of an innocent person." S. Hartung, "The Confluence of Factors Doctrine: A Holistic Approach to Wrongful Convictions," 51 *Suffolk University Law Review* 369, 370-71 (2018). Once the decision was made to arrest Dennis Dechaine immediately after the discovery of Sarah Cherry's body, the prosecution was committed to convicting him. Any statements he made during his initial arrest and booking were construed in a way that was consistent with guilt. The forensic analysis of blood under the victim's fingernails was prejudiced by Forensic Chemist Judith Brinkman's assumption that the blood had to be the victim's because it was not consistent with Dennis Dechaine's. "The 'bias snowball effect' that occurs when forensic analysts are exposed to extraneous information - e.g., police reports, witness statements, or *theories of the case* - compounds as the bias-tainted evidence influences other, allegedly independent evidence." *Id*. at 381 (emphasis added).

Confirmation bias led the prosecution to oppose DNA testing early in the case, when it would have answered the questions we are litigating thirty-six years later. As the record shows, defense counsel had moved for a trial continuance so that the victim's bloody thumbnails might be sent to a lab in California for DNA analysis using the polymerase chain reaction (PCR) method. State Forensic Chemist Judith Brinkman testified then that, "If the test is successful . . . it could show that [the blood under the victim's thumbnails is] just the victim's blood or it could show that it's the victim's and *another person's blood and there is a possibility of that not being the defendant*." Tr. 1/27/1989 Hrg, at 44: 13-21 (emphasis added). Thus, the prosecution understood the DNA tests were potentially exculpatory.

The prosecution opposed the motion on its theory that the blood came from the victim's neck wounds. The prosecutor told the court: "I can represent to you that *there was blood on her hands*, although those were not seen by Ms. Brinkman, in an area in which [the victim] had been

bleeding to some greater or lesser extent." Tr. 1/27/1989 Hrg. at 53: 2-6 (emphasis added). Yet there was no evidence of blood on her hands, as the autopsy report showed and as Rod Englert testified at the April 18th hearing. Whether the prosecutor misrepresented the evidence because he was afraid DNA would contradict their preconceived position that Dechaine was guilty, or whether their preconceived position closed their mind to what the evidence showed, confirmation bias was the root of the error.[8]

Furthermore, the DNA exclusions are also complementary towards the DNA alternative suspect evidence. The jury would see that the absence of Dennis Dechaine's DNA makes it more likely that the single profile on the bloody thumbnail is the perpetrator.

7. Evidence bearing on George Carlton, Esq. should not be considered in these proceedings because it has never been the subject of live testimony, has never been subject to any kind of searching inquiry on cross-examination, has never been properly admitted into evidence, and has therefore never become part of "all the other evidence in the case, old and new," which is required for the evidence to be cognizable in a hearing under 15 M.R.S. §2138(10).

In its 2015 opinion, the Law Court quoted the U.S. District Court to the effect that George Carlton, Esq., a lawyer whom Dennis consulted, "conveyed to LaRochelle of the Attorney General's Office on the morning of July 8, 1988 . . . that Cherry was no longer alive and that searchers were looking in the right place." *State v. Dechaine*, 2015 ME 88, ¶3, 121 A.3d at 87. This conversation, which was described by phone, has never been evidenced in any hearing in this case except as a hearsay offer of proof in a post-conviction proceeding that was ultimately dismissed without a testimonial hearing. It has never been the subject of live

[8] Confirmation bias also led the prosecution to ignore exculpatory forensic evidence from nationally renowned pathologist, Cyril Wecht, on the grounds that his time of death evidence exculpated Mr. Dechaine, who was in police custody at the time. Compare State v. Dechaine, 2015 ME 88, ¶36 (adverted to briefly as time of death evidence).

testimony, has never been subject to any kind of searching inquiry on cross-examination, and has never even been properly admitted into evidence. It has therefore never become part of "all the other evidence in the case, old and new," which is required for the evidence to be cognizable in a hearing under 15 M.R.S. §2138(10). *See State v. Dechaine*, 2015 ME 88, ¶12, 121 A.3d at 90. Nevertheless, statements about this phone call have been included in judicial opinions, seemingly in contradiction to the statute, as if the matter were part of the factual record, which it is not. *See id.* at ¶3, 121 A3d. at 86 (quoting *Dechaine v. Warden*, 2000 WL 1183165, 2000 U.S. Dist. LEXIS 12289).

The prosecution led off with this never-admitted evidence in their opening statement at the April 18-19 hearing. Tr. 4/18/2024 Hrg. at 15:10-20. Presumably they will try to use it again in their responsive brief.

Dennis Dechaine *objects* to any suggestion that he confessed to George Carleton, Esq. For his lawyer to incriminate him as LaRochelle unilaterally claimed would be ineffective assistance of counsel per se in the extreme. *See McClure v. Thompson*, 323 F.3d 1233 (9th Cir. 2003). It would be a clear violation of legal ethics. See Me. R. Prof. Resp. Rule 1.1 (competence), Rule 1.3 (diligence) & Rule 1.6 (confidentiality). For the prosecutor to intrude on the attorney/client relationship with a phone call under such circumstances would violate the Sixth and Fourteenth Amendments to the United States Constitution. *See Maine v. Moulton*, 474 U.S. 159, 170 (1985) (prosecutor has obligation not to circumvent and dilute protections of right to counsel). Without a hearing on the matter, there is no way to know what was actually said, what was thought to be said, or what basis of information, if any, Carlton was working from. There are serious legal and factual questions surrounding every aspect of this supposed conversation. However, the decisive point is that it does not come within the scope of "all the

other evidence, old and new," as defined by statute, because the phone conversation was never admitted as evidence in any testimonial hearing in the 36 years of this case.

CONCLUSION

In summary, the new DNA evidence together with the analysis of Rod Englert and Dr. Staub has never been heard by a jury. This new evidence addresses and dispels the prosecution's contamination argument and connects the unknown male DNA from the bloody thumbnail extract to the crime and to how the crime was committed. The DNA results are now conclusive exclusions on the t-shirt, the bandana/handkerchief, and the bra, which were "inconclusive" in 2015; and also on the rectal stick, which was not tested in 2015. These exclusions, together with all of the other absences of evidence, amount to proof that he was not present at the crime. In view of this overwhelming evidence of absence, the two "could be included" findings on the scarf and the vaginal stick are outliers. These two results are explained by background DNA on the scarf and secondary transfer on the vaginal from the scarf, which, in Dr. Roy's testimony, was handled by the perpetrator immediately after the scarf. The incriminating statements were weak and ambiguous. Most importantly, the evidence from the crime scene does not support that Dennis Dechaine was present. The jury would have a strong basis, which it did not have before, to discount the alleged admissions are misstated, misheard, or misinterpreted by police actuated by confirmation bias. The prosecutor, who knew the State's case best, still had to resort to improper argument in "that's the way God made it." The U.S. District Court admitted that the lack of evidence raised "troubling questions," which the Law Court endorsed by quoting. If the new DNA results and analysis were added to the trial, and the "God made it that way" statement was taken out of the trial, the jury would almost certainly return a different verdict.

Dated this 15th day of July 2024.

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CERTIFICATE OF SERVICE

Dechaine's Main Closing Memorandum was filed July 15, 2024 with ShareFile Knox County Superior Court and sent to Leanne Robbin, Esq. and Lisa Marchese, Esq. via email.