

No.

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IN THE SUPREME COURT OF THE UNITED STATES

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JOHN RUSSELL,

Petitioner

v.

PATRICK COVELLO, Warden,

Respondent

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ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES  
COURT OF APPEALS FOR THE NINTH CIRCUIT

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PETITION FOR A WRIT OF CERTIORARI

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## QUESTIONS PRESENTED FOR REVIEW

1. DNA evidence played a central role in this 44 year-old murder case in two ways: the presence of a “match” between petitioner’s profile and the major contributor in DNA mixtures found on the victim’s vaginal swab and the absence of his DNA on her underwear. Prior to trial, petitioner moved to exclude the testimony that his profile was not on the victim’s underwear (the basis for the prosecutor’s argument that he could be identified as the killer). He offered expert testimony that the novel methods used to test the degraded and mixed evidence sample was not generally accepted in the scientific community and that reliable methods were not used to test the samples. The question presented for review is:

Did the trial court violate petitioner’s right to due process when it admitted DNA evidence based on a novel methodology without conducting a pre-trial hearing to determine whether the evidence was reliable and generally accepted in the scientific community?

2. The trial court excluded most of the evidence petitioner sought to present that pointed to the victim’s intimate partner as the person who murdered her.

The question presented for review is: What is the scope of a trial court’s authority to exclude defense evidence that points to another person as the perpetrator of the charged crimes?

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**PETITION FOR WRIT OF CERTIORARI**

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Petitioner, John Russell, respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Ninth Circuit in this case.

**OPINIONS BELOW**

The Ninth Circuit Court of Appeals affirmed the district court's denial of habeas corpus relief in an unpublished decision. App. 1. <sup>1</sup> The order and judgment of the district court denying petitioner's habeas corpus petition are unreported. App. 8, 9.

The California Court of Appeal affirmed petitioner's conviction and sentence in an unpublished decision. App. 43. The California Supreme Court denied review in an unpublished order. App. 42.

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<sup>1</sup> "App" refers to the Appendix attached to this petition. "ER" refers to the Petitioner's Excerpts of Record filed in the Court of Appeals for the Ninth Circuit. "RT" refers to the reporter's

## **JURISDICTION**

The final judgment of the Ninth Circuit Court of Appeals was entered on April 14, 2023. App. 1. The jurisdiction of this Court is invoked pursuant to 28 U.S.C. § 1254(1).

## **CONSTITUTIONAL PROVISION INVOLVED**

Section 1 of the Fourteenth Amendment to the United States Constitution provides in pertinent part: “No state shall . . . deprive any person of life, liberty or property without due process of law.”

## **STATEMENT OF THE CASE**

### **A. State Court Proceedings**

On December 8, 2014, Russell was charged in Ventura County Superior Court with one count of murder under California Penal Code § 187(a). The information also alleged that Russell used a firearm and a knife (Cal. Pen. Code, § 12022 (b)); and that the murder occurred during the commission of kidnapping and rape (Cal. Pen. Code, § 190.2, subd. (a)(17). 4 CT 873-873B.

On December 19, 2014, a jury found Russell guilty of first-degree murder and found the special allegations true. 5 CT 973-973A. Russell was sentenced to life in prison plus three years without parole. 6 RT 1069.

On May 30, 2017, the California Court of Appeal affirmed the judgment. 1-ER-37. On September 13, 2017, the California Supreme Court denied Russell’s petition for review. 1-ER 36.

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transcript of the state Court of Appeal proceedings and “CT” refers to the Clerk’s Transcript.

## **B. Federal Court Proceedings**

Russell timely filed a petition for writ of habeas corpus in the district court on March 13, 2019. CR 1. On August 24, 2021, the district court denied the petition on the merits. 1 ER 2, 3.

On August 24, 2021, the district court issued an order granting a certificate of appealability. 2 ER-66-67. On April 14, 2023, the Ninth Circuit affirmed the judgment of the district court. App. 1.

## **STATEMENT OF FACTS**

### **A. Russell's arrest for a murder that occurred 33 years earlier**

On July 26, 2012, Russell, then age 63, was living in Bakersfield with his wife Pryscyla. That day, police detectives approached Russell and showed him photographs of a woman named Alma Zuniga. 6-ER-1025-1026, 1034; 4 RT 692. Russell said he did not recognize her. When asked if he had ever had sexual intercourse with her, Russell said he could not remember Zuniga "at all." 6-ER 1027-1028.

In March, 1979, Zuniga had been abducted, sexually assaulted and murdered. 3 RT 442. The detectives arrested Russell for Zuniga's murder. They said that Russell's DNA profile matched that of sperm taken from Zuniga's vagina. 6-ER-1030, 1046. During Russell's subsequent interrogation, he again denied that he had engaged in sexual intercourse with Zuniga or that he murdered her. 6 -ER-1038, 1039.

### **B. The Murder of Alma Zuniga**

In 1979, Zuniga was living in Oxnard, working as a prostitute. She carried a switchblade and sometimes robbed her customers. 4-ER-506, 515. Christine Oregon testified that on the evening of March 10, 1979, she and Zuniga were at a bar called the Crow's Nest. Zuniga

excused herself to go to a motel associated with prostitution. 4-ER-516-517.

After Zuniga returned from the motel, she and Oregon went to the Army Navy Café. 4-ER-518. Zuniga asked a man sitting nearby, Sebastian Carrillo, to put out his cigarette. 4-ER-510-511. Zuniga and Carrillo argued and he became aggressive. He stood up and a gun fell out of his boot. Carrillo picked up the gun and left. Zuniga and Oregon left at about 2:30 a.m. 4-ER-507-508.

As Oregon watched Zuniga drive away, she saw Zuniga suddenly slam on her brakes. Oregon was "stunned" because Zuniga abruptly stopped in the middle of an intersection and stayed for 30-60 seconds. Zuniga then turned left and drove away. 4-ER-512.

Sergio Valdez testified that he had been at the café with Zuniga and Oregon the night that Zuniga was killed. Valdez did not recall seeing Zuniga get into an argument at the café and did not recall seeing a man with a gun. According to Valdez, he and Oregon had stayed at the Café after Zuniga left. 4-ER-482.

About 30 minutes after Zuniga left the café, her ex-husband Enrique Zuniga called Oxnard police. Enrique said that Zuniga had just called him from a pay phone. While they were talking, she suddenly screamed and said that someone was hitting her from behind. She also said "That guy came back." 4-ER-591-592; 2 SCT 2-3.

A few hours later, police found Zuniga's body in a lemon orchard. Her body had been almost completely buried in soil and debris. Her pants and underwear had been removed and her breasts were exposed. 2 RT 322, 326.

Zuniga died from a gunshot wound to her head and a stab wound to her back. Nearby, police found two shell casings and a 22 caliber bullet. 2 RT 349; 3 RT 495-496.

**C. The prosecutor's theory that Russell was the killer because his DNA profile matched one of the male profiles on Zuniga's vaginal swab but was not found on her underwear or pants**

At the time of Zuniga's murder, Russell had been living in Oxnard. 4 RT 691-692. DNA analysis of a vaginal swab taken from Zuniga's body revealed at least 3 male profiles. The major male profile matched Russell's. 3-ER 276, 287, 290.

The prosecutor's theory that Russell was the killer was based on separate testing of the degraded, low level DNA mixtures taken from Zuniga's underwear and pants, which did not detect Russell's profile. That testing was performed by a private laboratory called Sorenson. The prosecutor argued that if Zuniga had been able to stand up after having intercourse with Russell, his semen would have drained from her vagina. Accordingly, she argued that Russell must have killed Zuniga because his DNA profile was detected on the Zuniga's vaginal swab but not on her underwear or pants. 2-ER 95-99.

The prosecutor also argued that "size 12 or 13" shoe impressions found at the crime scene matched the size of shoes found in Russell's home. 2-ER-85. However a prosecution expert admitted that the shoe impressions at the scene could have been as small as a size 11 or as large as a 14. 4-ER-463-464.

**REASONS FOR GRANTING THE PETITION**

**I. This Court Should Grant Certiorari Because the State Court Decision Admitting Novel and Unreliable DNA Evidence Without a Pre-Trial Admissibility Hearing was Contrary to This Court's Precedents Concerning the Right to a Fair Trial**

The Ninth Circuit Court of Appeals affirmed the district court's order denying petitioner's claim that the trial court violated his right to due process when it admitted novel DNA evidence

derived from low level degraded mixtures from the crime scene samples. As set forth in more detail below, petitioner argued that the trial court violated his right to due process when it failed to conduct a pre-trial admissibility hearing as to whether the DNA analysis in this case was conducted with methods that were reliable and generally accepted in the scientific community.

Certiorari should be granted to provide guidance to the lower courts because there has been inconsistent application of this Court’s “fundamental fairness” standard to the admission of flawed expert testimony at criminal trials. It is clearly established that a defendant's federal due process right to a fair trial is violated when the State presents misleading evidence at trial and the false evidence is material to the jury's verdict. And it is also clearly established that misleading evidence is material if “there is any reasonable likelihood” that the evidence “could have affected the judgment of the jury.” *United States v. Agurs*, 427 U.S. 97, 103 (1976).

Certiorari should be granted to clarify the fundamental fairness standard to be applied when the misleading evidence that is admitted is unreliable expert or scientific testimony. The Third Circuit and the Ninth Circuit appear to analyze Due Process claims involving invalid scientific evidence and testimony utilizing a general fundamental fairness test. For example, in *Han Tak Lee v. Houtzdale SCI*, 798 F.3d 159 (3rd Cir. 2015), the court held that admission of unreliable fire expert testimony undermined the fundamental fairness of the trial and in *Giminez v. Ochoa*, 821 F.3d 1136, 1143-1144 (9th Cir. 2016) the Ninth Circuit acknowledged that the petitioner’s right to due process could be violated by the introduction of flawed expert testimony concerning alleged “shaken baby syndrome” if that testimony had undermined the fundamental fairness of the entire trial.

Although DNA evidence is generally presented at trial to identify a person as the source of crime scene evidence, the results of the contested DNA analysis in this case were used by the prosecution to exclude Russell as a contributor to the complex, low level and degraded DNA mixtures found on Zuniga's pants and underwear. As set forth in more detail below, the analysis of the underwear and pants samples in this case was unreliable because the laboratory modified its testing method to obtain profiles from the degraded, low level mixed DNA samples without using standard controls necessary to ensure reliable results.

Moreover, there is no consensus in the relevant scientific community as to how to reliably interpret the data from low level degraded complex DNA mixtures like those analyzed in this case.

The prosecutor claimed that the lab was able to obtain reliable results by simply repeating the experiment. However, the lab's "replicate analysis" procedure is not a generally accepted method for reliably excluding a person as a source of a crime scene sample. Moreover, simply repeating the experiment using the same method could not establish that there is scientific consensus that the method itself is reliable and generally accepted. The fact that there is no scientific consensus supporting the laboratory's novel analytical techniques in this case was conclusively established at trial. Both prosecution and defense experts agreed that re-analyzing a sample without a standard control is not a reliable method for excluding a person as a contributor to a mixed sample. Moreover, as set forth in more detail below, there was and continues to be a lack of consensus in the scientific community as to the interpretation of profile evidence from low level, degraded DNA mixtures.

In summary, certiorari should be granted because the state court order refusing to conduct a pre-trial reliability hearing in this case conflicts with this Court's precedents, such as *United States v. Scheffer*, 523 U.S. 303, 309 (1998), where this Court stated that "the exclusion of unreliable evidence is a principal objective of many evidentiary rules." This Court has also held that the right to a fair trial is a fundamental liberty secured by the Fourteenth Amendment." *Estelle v. Williams*, 425 U.S. 501, 503 (1976); *Droe v. Missouri*, 420 U.S. 162, 172 (1975); *Spencer v. Texas*, 385 U.S. 554, 563-64 (1967).

The state court decision is also in conflict with this Court's precedents holding that the Due Process Clause protects criminal defendants from fundamental unfairness in the presentation of evidence at trial. *Colorado v. Connelly*, 479 U.S. 157, 167 (1986); *Bruton v. United States*, 391 U.S. 123, 131, fn. 6 (1968); *Chambers v. Florida*, 309 U.S. 227, 236-67 (1940). Accordingly, certiorari should be granted.

**II. This Court Should Grant Certiorari Because the State Court Order Excluding Defense Evidence Conflicts With This Court's Precedents Concerning the Right to Present a Defense and Because The Lower Courts Have Issued Inconsistent Decisions When Deciding Such Claims**

Prior to trial, the trial court denied petitioner's motion to introduce evidence that the victim's intimate partner was the person who killed her. Petitioner presented evidence from police testimony given at the preliminary hearing, a conditional exam of a civilian witness and defense investigation reports indicating, as set forth in more detail below, that the victim's estranged intimate partner had harbored a grudge against her, that he was with her on the night of her murder and that he lied to police when questioned. The California Court of Appeal and the Ninth Circuit Court of Appeal affirmed the order excluding the evidence, holding that the constitution prohibits the exclusion of only "certain types of critical evidence" (App. 5) and that

petitioner's proffer did not meet that standard. *Id.*

Certiorari should be granted because the lower courts have applied an inconsistent standard to determine whether the exclusion of defense evidence violates a defendant's right to present a defense.

"Whether rooted directly in the Due Process Clause of the Fourteenth Amendment ... or in the Compulsory Process or Confrontation clauses of the Sixth Amendment ... the Constitution guarantees criminal defendants a meaningful opportunity to present a complete defense." *Crane v. Kentucky*, 476 U.S. at 690. The right to present a complete defense includes a defendant's right "to present his own witnesses." *Washington v. Texas*, 388 U.S. 14, 19 (1967).

While this Court has found that exclusion of defense evidence violated the Due Process Clause in previous decisions, it has not yet articulated a threshold for evaluating the importance of the proffered evidence to the defendant's defense. In *Washington*, the Court held that defendant's right to compulsory process was violated because the excluded evidence was "relevant and material to the defense." 388 U.S. at 23.

However, when *Washington* was decided, materiality and relevancy were defined differently. Evidence was "material" if it was submitted to prove a matter "at issue" in the case. McCormick on Evidence, §185 (2006). More recently, the term "materiality" was incorporated into the definition of relevance. See *Telum, Inc. v. E.F. Hutton*, 859 F.2d 835, 838 (10th Cir. 1988) ("the concept of materiality is now embodied within the broader notion of relevance as defined in the federal rules").

In contrast to the "materiality" standard in *Washington*, *Chambers v. Mississippi*, 410 U.S. 284, 302 (1973), found a constitutional violation where evidence "critical" to the

defense and “affecting the ascertainment of guilt” was excluded under a state hearsay rule.

In *Crane*, evidence concerning the voluntariness of a defendant’s confession was excluded. The Court explained that the right to present a defense is violated when the court excludes “competent reliable evidence … when such evidence is central to defendant’s claim of innocence.” 476 U.S. at 690. Finally, in *Pennsylvania v. Ritchie*, 480 U.S. 39, 55 (1987), the Court stated, that the defense had a right to assistance in compelling the attendance of “favorable witnesses at trial and the right to put before a jury evidence that might influence the determination of guilt.”

The Ninth Circuit, like the Seventh Circuit, has relied on *Washington* to formulate its test, holding that the right to present a defense is violated where the court excludes evidence that is “relevant, material and … vital to the defense.” *Alcala v. Woodford*, 334 F.3d 862, 880 (9th Cir. 2003); *Selam v. Warm Springs Tribal Correctional Facility*, 134 F.3d 948, 952 (9th Cir. 1998).

By contrast, the Second and Sixth Circuits use a materiality test based upon *United States v. Valenzuela-Bernal*, 458 U.S. 858 (1982), holding that there is a due process violation when the omitted evidence creates a reasonable doubt that did not otherwise exist. *United States v. Blackwell*, 459 F.3d 739, 753 (6th Cir. 2006); *Howard v. Walker*, 406 F.3d 114, 132 (2nd Cir. 2005); *Wade v. Mantello*, 333 F.3d 51, 59 (2nd Cir. 2003).

Here, the Ninth Circuit departed from the standard in *Alcala* and employed the “critical evidence” standard from *Chambers*. App. 5. Because the lower court decisions are in conflict as to an important federal constitutional question, that is, the standard for determining when the exclusion of defense evidence violates the Due Process Clause, certiorari should be granted.

## Argument

- A. **The trial court order admitting the testimony that Russell was excluded as a source of the low level, degraded and complex DNA mixtures violated his right to due process because the trial court should have held a hearing as to the general acceptance of the novel methods used to produce that evidence and also determined whether the laboratory correctly followed generally accepted procedures**

### I. The DNA evidence

#### a. Russell's pre-trial motion for a *Kelly-Frye* hearing

In 2011 and 2012, the prosecutor asked a private forensic laboratory, Sorenson, to try to obtain DNA profiles from a sample from Zuniga's underwear and one from her pants. Sorenson used an "enhanced" detection method -- a ten second injection cycle -- to produce the profiles. Sorenson concluded that the profiles were mixtures from at least three contributors and that Russell's profile was not included. Sorenson's analysis of a second underwear sample was inconclusive. 3-ER- 298-299, 305-306; 6-ER-943-945.

Prior to trial, Russell's counsel filed a motion to exclude the results of Sorenson's testing. 5-ER-628; 6-ER-941. Defense counsel offered the testimony of DNA expert Marc Taylor, who would have testified at a pre-trial hearing that Sorenson had not used a valid method because it failed to establish a stochastic (random error) threshold for its enhanced (ten second) injection time. Taylor would have also testified that there was no generally accepted method for interpreting the profile data resulting from DNA analysis of degraded and low level complex mixtures. 6-ER-1021-1022; 5- ER-631-632.

**b. The DNA typing process using the polymerase chain reaction and short tandem repeat DNA typing kits**

The DNA testing performed by Sorenson was a novel application of a DNA testing process using short tandem repeats (“STRs”) amplified by a polymer chain reaction (“PCR”). PCR has been referred to as “genetic photocopying” because it allows an analyst to “amplify” or copy a very small sample so there is sufficient material for analysis. *People v Reeves*, 91 Cal.App.4th 14, 28-29 (2001). However, the process is subject to what are called “stochastic” (random) effects including, and most important here, loss or “drop out” of some profile information. *E.g*, 6-ER- 972, 997.

Forensic scientists refer to techniques used to obtain profile data from degraded or low level samples as “enhanced” detection methods. 5-ER- 901; 3-ER 230-231. The enhanced detection method at issue in this case is Sorenson’s longer (ten second) injection time. 2-ER-304-305, 2 CT 287; 3-ER-269-271. Enhanced detection methods can produce data that is more likely to contain random errors (6-ER-924) including the aforementioned “drop out” where donor peaks do not appear on the electropherogram. 2-ER-201; 267, 5-ER-674, 908.

**c. The DNA samples from Zuniga’s pants and underwear were degraded, low level mixtures**

All of the experts agreed that DNA degrades over time. 3-ER- 336-337. Because the samples in this case were low level and degraded and because they were mixtures of DNA from at least three people, they were challenging samples to analyze and interpret. 3-ER-355, 362, 378, 387, 391-392.

**d. Russell's pre-trial motion made a substantial showing that Sorenson's ten second injection procedure without a stochastic (random error) threshold was not a generally accepted method for producing reliable DNA profile data**

The stochastic threshold is the peak height necessary to reasonably conclude that profile data is not missing from the test results. *See People v. Lazarus*, 238 Cal.App.4th 734, 781, fn. 49 (2015) (The stochastic threshold has been described as “a laboratory-set number used to assess whether a sample contains sufficient DNA to obtain reliable results.”) As a practical matter, a laboratory can create a stochastic threshold by injecting progressively dilute known single source samples into an electrophoresis instrument. 3 ER 407 (testimony of prosecution expert Suzette Sanders).

Sorenson did not establish and validate a stochastic threshold for the 10 second injection method it used to produce the profiles that excluded him as a donor. 6-ER-949.

**e. Russell made an offer of proof that Sorenson's use of an “enhanced detection” method without a validated stochastic threshold violated the SWGDAM guidelines and its own standard operating procedures**

Russell made an offer of proof that the use of enhanced detection techniques can produce a variety of random errors in the data. For example, “allelic drop out” occurs when peaks that should be visible on the electropherogram do not appear. “Stutter” occurs when small peaks appear that are artifacts and not alleles. Peak height imbalances” occur when alleles from the same individual have different heights and thus may be misconstrued as a mixture of DNA from multiple individuals. 5-ER-901; 6-ER-952.

Russell also argued that because each laboratory is unique (i.e., its combination of instrumentation, protocols and staff are particular to that lab) the standards for evaluating data produced by the laboratory must be validated both internally (by the laboratory’s own studies)

and externally (by validation studies for the materials and methods used conducted outside the laboratory.) 6-ER-947-949.

Russell argued that the use of a stochastic threshold was particularly crucial in this case, because the prosecutor presented the contested DNA evidence at Russell's trial to convince the jury that his profile was *not* present on the victim's pants or underwear. A stochastic threshold is particularly important in this context because it set a minimum standard for the amount of DNA necessary to ensure that data loss ("drop out") has not occurred. 6-ER-957, 997.

Russell offered to testimony of defense expert Marc Taylor, who would have testified that Sorenson's data was unreliable because the lab did not use a stochastic threshold (5 ER 631-632; 6 ER 1021-22) and argued that a pre-trial *Kelly-Frye* hearing was necessary. 6-ER-954-955, 957.

**f. Russell also made a substantial showing that there is no generally accepted method for interpreting profile data from complex, low level degraded DNA mixtures**

Russell's pre-trial motion to exclude Sorenson's DNA test results also argued that "There is no generally accepted procedure for interpretation of complex DNA mixtures such as those encountered from the pants and underwear samples in this case." Russell offered to call DNA expert Taylor to testify that there was no consensus in the relevant scientific community as to the interpretation of such mixtures. 5 ER 631-632; 6 ER 1021-22.

**g. The prosecutor's opposition to Russell's request for a *Kelly-Frye* hearing**

The prosecutor argued: (1) the use of PCR and STR technology to test mixed samples was not new or novel and (2) the Sorenson analysts had properly repeated the experiments with

the low level and degraded samples in this case instead of using a stochastic threshold. 5-ER-633, et seq.

The prosecutor presented the declaration of Ryan Buchanan, who was the technical leader for Sorenson. Buchanan's declaration argued that repeating the analysis is a generally accepted alternative to the use of a stochastic threshold. 5- ER-648. Buchanan's declaration also asserted that Sorenson's methods complied with the SWGDAM guidelines. 5-ER- 648, et. seq.

**h. Russell's supplemental motion to exclude Sorenson's DNA results with a second offer of proof**

On November 26, 2014, Russell filed a supplemental motion to exclude the DNA test results. 5-ER-628. Russell attached a second offer of proof as to the proposed testimony of defense expert Marc Taylor, which stated that Taylor would testify, in summary that: (1) Sorenson's updated protocols reflected that it did not employ a stochastic threshold; (2) the use of duplicate analysis is not a substitute for a stochastic threshold; (3) Sorenson's methods for creating and interpreting the profile data in this case were not generally accepted; (4) the DNA testing of the pants and underwear samples was in fact inconclusive. 5-ER-631-632.

**i. The hearing on the defense motion for a *Kelly-Frye* hearing**

At the hearing on the motion, defense counsel argued that the ten second injection procedure was an enhancement of the sample that should not have been used unless there were procedures in place, including a stochastic threshold, to ensure reliable results. 4-ER-612.

Defense counsel offered the testimony of expert witness Taylor, asserting that there was not a generally accepted method to interpret DNA profiles created from degraded, low level DNA mixtures and that using an enhanced detection method without a validated stochastic threshold was not a generally accepted procedure. 4-ER-613-614, 615.

The prosecutor argued that Sorenson's methods were not new or novel. She also argued that the declaration of Sorenson laboratory technical leader Ryan Buchanan "put to rest" the defense expert's concerns about the lack of a stochastic threshold. 4-ER-617.

Defense counsel asked the court to conduct an evidentiary hearing under the first and third prongs of the *Kelly-Frye* standard to determine whether Sorenson's production of the data from the mixed degraded samples and its interpretation of the data was reliable and generally accepted in the scientific community. 4-ER- 622-623.

**j. The trial judge's ruling**

The trial judge held:

The request for the hearing is denied. Maybe I don't understand this, 'cause it seems fairly complicated, but I think maybe we have a dispute about what the significance of what the results are and whether the way they got their results should be accepted by the jury as to how much weight to give it. That's not a *Kelly-Frye* issue in my mind. It seems to me that the procedures are appropriate and what we're talking about here is the weight

4-ER-625-626.

**k. The trial testimony concerning the DNA analysis in this case**

**1. Ventura County crime laboratory analyst Suzette Sanders**

Suzette Sanders, a forensic scientist with the Ventura County Forensic Crime laboratory, testified that a DNA profile consistent with Russell's was detected on the vaginal swab in this case. When the swab was retested by Sorenson, they concluded there were a minimum of three male contributors and that Russell was the major contributor. 3-ER-387.

The samples from Zuniga's pants and underwear had a mixture of very low amounts of degraded DNA. 3-ER-362. When asked if there was consensus in the scientific community as to how to interpret such mixtures, Sanders said that some samples have "gray areas" that are so

“large” that “they should be called inconclusive.” However, she argued that it would be “incorrect” to imply that there could not be consensus as to whether a person could be excluded from a low level complex mixture. 3-ER-362.

The mixture from the underwear evidence in this case was “complex” and “low level” because there was very little DNA detected and the peaks were “very small.” 3-ER-391-392. Sanders admitted that profile information in such mixtures can seem to disappear. She compared this to a picture that is fading from view and ultimately becomes so faint that “you can’t see what’s there.” 3-ER-392. This is known as “allelic drop out.” *Id.*

Sanders said that when working with a small, degraded mixture, “some of the DNA types won’t show up,” even though the data can appear to be complete. 3- ER-392. Moreover, it can be so difficult to assign alleles to a particular profile that the analyst might not be able to “distinguish one person from another.” 3-ER- 392-393, 396.

When complex mixtures are amplified (i.e. when the DNA is “copied” using PCR) a minor contributor may “drop out.” 3-ER-397-398. A sample that is a four person mixture can look like a three person mixture. 3-ER-399. When there are more contributors, it becomes “more and more likely that you can have another person hiding in that mixture of alleles that you don’t know about.” 3-ER-399.

Sanders also admitted that when a laboratory conducts repeated PCR amplifications of a low level sample, they can get different results, i.e., the same sample can produce profiles with different alleles. The alleles for a contributor may not appear at all if the sample is below the “stochastic range.” Low level mixtures can also produce “stacked” profiles where some alleles are present but undetectable. 3-ER-409-410.

Sanders also explained that a “stochastic threshold” is a level set by validation studies. It is the benchmark for determining when the data is “strong enough so its useful at all.” 3-ER-405-406.

When defense counsel asked Sanders whether duplicate amplifications of a sample were a sufficient method “to ensure that alleles are not present in a low level sample” and “can you prove they’re not there by doing duplicate amplifications?” Sanders said “No.” 3-ER-410.

## **2. Sorenson analyst Emily Jeskie**

Emily Jeskie, an analyst from Sorenson Forensics laboratory testified that Sorenson used “enhanced detection” methods on the pants and underwear samples, which were a “post amplification clean up” to “get rid of” some of the degraded DNA and a longer (10 second) injection time. 3-ER-270.

Jeskie admitted that degraded DNA is subject to stochastic effects like allelic drop out, allelic drop in, peak height imbalance and stutter. 3-ER-270-271. She admitted that Sorenson did not use a stochastic threshold for the testing in this case (3-ER-306) although use of a stochastic threshold was “recommended.” However, she testified that “doing more than one amplification of the same extract” “negates the need for a stochastic threshold.” 3-ER-271. Jeskie said her opinion on that subject was shared by the scientific community. 3-ER-271-272.

Jeskie admitted that allelic drop out is “a random event” that “happens a lot in degraded DNA.” 3-ER-272-274. However, repeating the amplification of degraded samples can increase confidence in the results. 3-ER-272-273.

Sorenson found multiple contributors to the sperm fraction from the vaginal swab taken from Zuniga's body. That result was different from the one obtained by the Ventura County Crime Laboratory, which had identified only a single male profile. 3-ER-276, 288.

The sperm fraction from the vaginal swab was a mixture of DNA profiles from "at least three contributors." Russell's profile matched that of the "major contributor." 3-ER-281, 290, 292, 374. However, the major profile might not be the sample that was most recently produced. 3-ER-314. The male profile from the nonsperm cell fraction on the swab also matched Russell's profile. 3-ER-276, 288.

Sorenson analysts also tested a cutting from Zuniga's underwear. The underwear contained a mixture of at least three contributors. 3-ER-278, 280. The lab performed two separate "runs" of both the sperm and nonsperm cell fractions. Jeskie said "The loci that we deemed suitable for comparison showed no signs of allelic drop out." 3-ER-285, 296.

The lab also tested sperm and non-sperm cells derived from a cutting from Zuniga's pants. Each type of cell was a mixture from at least three contributors. Russell was excluded as a source of the cells from the underwear and pants. 3-ER- 299.

When Sorenson analysts tested a second cutting from Zuniga's underwear (this time using a five second injection and a stochastic threshold) they obtained a mixture of at least three profiles from the nonsperm fraction. Russell was excluded as a contributor to that fraction. 3-ER-304-305. As for the sperm fraction from that cutting, there was a mixture from at least two contributors. The analysis of the sperm fraction was "inconclusive." 3-ER-305.

The prosecutor pointed out that Sorenson had not been able to "interpret all of the profiles developed from the pants and underwear." She asked Jeskie whether it was possible to

state that appellant's DNA was or was not on those items. Jeskie replied that "It's possible to say that he's excluded from the data that we got in our lab." 3-ER-307-308.

Jeskie admitted that the purpose of a duplicate amplification is to confirm that an allele is present and she could not cite any studies that endorse the use of duplicate amplifications to establish the *absence* of alleles in a sample. 3-ER-311-314. When asked if Sorenson's internal validation studies had shown that dropped alleles would appear in a second amplification "100 percent of the time," Jeskie said "No." 3-ER-317.

### **3. Defense expert Marc Taylor**

Marc Taylor was the laboratory director of a forensic crime laboratory in Ventura. 3-ER-166. Taylor testified that a duplicate amplification "may give you greater confidence that you're not missing an allele" but it cannot reliably exclude a person as a donor to a mixed low level sample. Taylor explained that the lower the quantity of evidence DNA, the more likely it is that alleles that dropped out in the first amplification will also not appear when the sample is amplified a second time. 3-ER-178-179.

When asked if there was consensus in the scientific community as to how to interpret complex low level DNA mixtures such as the samples in this case, Taylor said "No, that's actually a big issue these days." 3-ER-182. Taylor testified that the National Institute of Science and Technology ("NIST") had been conducting workshops on the interpretation of complex DNA mixtures. According to Taylor, "There still is not a consensus." 3-ER-185.

DNA can also become degraded when exposed to bacteria, fungi and oxygen. This can cause the DNA strands to break down into shorter fragments. If that occurs, then the profile may

be visible at the more sensitive smaller loci but not at the larger and less sensitive ones.

Degradation can also cause drop out where alleles can't be detected. 3-ER-188-190.

The more individuals present in a mixture, the more complicated the process becomes, until it is "impossible to determine the actual number of contributors." One can determine the minimum number of contributors but not the actual number. 3-ER-192.

Establishing a stochastic threshold is important because it provides a signal that there may be drop out. Even that process is not foolproof, because if there are a lot of contributors to a sample, stacked alleles may show up above the threshold even though some of the contributions from particular individuals are below it. 3- ER-201.

Taylor testified that Sorenson's analytical protocols did not include a stochastic threshold for the 10 second injection method used on the underwear and pants evidence in this case. However, a stochastic threshold is necessary to interpret low-level DNA profiles. 3-ER-201-202.

When asked about Sorenson's decision to use a repeat amplification rather than a stochastic threshold, Taylor explained that a laboratory can perform a second or repeat amplification to provide assurance that a low level peak is a "real allele" and is not just an artifact. However, it is not possible to establish that a person is excluded simply because his profile did not appear in a second amplification in a mixed sample. 3-ER-205.

Taylor has seen profiles with "multiple drop outs" in the course of performing validation studies. The studies cited by Sorenson to support the use of a second amplification all relate to confirming the presence of a donor's alleles, not their absence. 3-ER-205-206. When Taylor tested samples from the pants and underwear evidence in this case, his results were inconclusive. 3-ER-215-216.

#### **4. Rebuttal testimony of Suzette Sanders**

Called in rebuttal, Ventura County Crime Laboratory analyst Suzette Sanders testified that there was a substantial amount of sperm on the vaginal swab. However, the vaginal sample was very old and degraded. 3-ER-160.

#### **K. The Court of Appeal Opinion**

On appeal, Russell argued that the trial court prejudicially failed to conduct a pre-trial *Kelly-Frye* hearing as to (1) whether interpretation of low level degraded mixed samples is generally accepted in the scientific community and (2) whether Sorenson had correctly used a generally accepted method for producing profile data from such samples.

The Court of Appeal held:

It is well-settled that the use of PCR-STR technology "on a particular type of DNA sample does not constitute a different scientific technique. Rather, it involves a technique, which has gained general acceptance, as applied to particular set of circumstances." (*Citation*) The inquiry thus "is not whether the procedure is generally accepted within the scientific community, but whether the approved procedure was followed correctly in this instance."

(*Ibid.*)

As to Russell's argument that Sorenson had not used correct scientific procedures to perform a generally accepted method, the Court of Appeal held that the trial court had properly relied on Buchanan's declaration. App 53.

#### **II. The trial court violated Russell's right to due process when it denied his request for a *Kelly-Frye* hearing as to whether Sorenson's methods for producing and interpreting the DNA profile information from the degraded, minute and mixed evidence samples were reliable and generally accepted in the scientific community**

##### **a. The due process right to a trial free of unreliable scientific evidence**

“The right to a fair trial is a fundamental liberty secured by the Fourteenth Amendment.” *Estelle v. Williams*, 425 U.S. 501, 503 (1976); *Drope v. Missouri*, 420 U.S. 162, 172 (1975); *Spencer v. Texas*, 385 U.S. 554, 563-64 (1967). The Due Process Clause also protects criminal defendants from fundamental unfairness in the presentation of evidence at trial. *Colorado v. Connelly*, 479 U.S. 157, 167 (1986); *Bruton v. United States*, 391 U.S. 123, 131, fn. 6 (1968); *Chambers v. Florida*, 309 U.S. 227, 236-67 (1940).

**b. The right to a *Kelly-Frye* hearing under state law**

A trial court must conduct a *Kelly-Frye* hearing as to the admissibility of scientific evidence when there is a timely request for a hearing accompanied by “authorities indicating that there may not be general scientific acceptance of the technique.” *People v. Daveggio and Michaud* 4 Cal.5th 790, 831 (2018).

At a *Kelly-Frye* prong one hearing, the trial court must decide “the existence, degree, [and] nature of a scientific consensus or dispute” as to the general acceptance of the technique used to produce the evidence. *People v. Soto*, 21 Cal.4th 512, 540, fn. 31 (1999). The prong one hearing must examine the quality and quantity of the evidence supporting or opposing a new scientific technique. *People v. Venegas*, 18 Cal.4th 47, 85 (1998).

When there is a “material scientific distinction” between the approved methodology and that in the case before the court, the new procedures must pass first-prong scrutiny independently.” *People v. Pizarro*, 110 Cal.App.4th 530, 556 (2003); *People v. Henderson* 107 Cal.App.4th 769, 780 (2003). Moreover, *Kelly* prong one analysis applies to the entirety of a scientific method and also any “part of the process that is now performed with a new technique.” *Henderson*, p. 780.

On direct review, the Court of Appeal may decide if prong one has been met based on case law finding that the technique is generally accepted. *People v. Brown* 40 Cal.3d 512, 530 (1985); *People v. Hill* 89 Cal.App.4th 48, 57 (2001). The Court of Appeal may also rely on decisions and scientific literature not considered by the lower court. *People v. Barney*, 8 Cal.App.4th 798 (1992); *Lazarus, supra*, 238 Cal.App.4th at p. 783.

- c. **The California Court of Appeal unreasonably determined the facts and violated Russell's right to due process when it affirmed the trial court order denying Russell's request for a *Kelly-Frye* hearing as to whether Sorenson's method for interpreting profiles from degraded, low level DNA mixtures was generally accepted in the scientific community**

The California Court of Appeal unreasonably applied United States Supreme court authorities and unreasonably determined the facts when it affirmed the admission of Sorenson's DNA evidence in this case based on cases holding that there is an adequate scientific foundation for PCR based testing generally. 1-ER-46-48.

The Court of Appeal decision misconstrued Russell's prong one challenge when it denied his claim on grounds that PCR-STR technology has been generally accepted. 1-ER-46-47. Russell did not challenge PCR-STR technology in general, he argued in his prong one challenge that there is no generally accepted method for interpreting the data from mixed, degraded and low level samples like the ones tested in this case. 5-ER-629-632; 6 ER 941. The Court of Appeal decision did not cite to any authority approving the admission of DNA test results from such compromised samples. 1-ER-45-48.

- d. **Cases approving the admission of PCR-STR testing did not support admission of Sorenson's analysis because there is a material scientific distinction between analysis of degraded, low level mixtures and that performed on single source samples or simple mixtures**

Because there is a material scientific distinction between testing of low

level, complex and degraded mixtures and that performed on less challenging samples, the California Court of Appeal unreasonably determined the facts when it held that PCR-STR technology can be reliably applied to such samples without a prong one *Kelly-Frye* hearing. Russell made an abundant pre-trial showing that there is no scientific consensus as to how to reliably interpret the results of PCR-STR testing of such severely compromised samples. 5-ER-628, 6-ER-941. As set forth in more detail below, even the material attached to the prosecutor's opposition brief supported Russell's position.

The reasons that interpreting DNA from degraded low level samples is materially scientifically distinct are numerous. First, text from the Sorenson laboratory's own analytical procedure manual, attached to the prosecutor's opposition, acknowledged that analysis of complex, low level degraded mixtures is materially more challenging than analysis of other samples. 5-ER-684.

Published studies have established that degraded samples produce false or "spurious" peaks. Moreover, the electropherogram produced from such mixtures tend to include more "stutter" (small false peaks) and unbalanced heterozygous alleles, which occur when two peaks from a single source in a mixed sample show dissimilar peak heights. E.g, 5-ER- 877, 912.

When the samples are mixed, low-level and degraded, there can be amplification anomalies where smaller loci amplify more "robustly" than larger ones. All of these phenomena change the appearance of the electropherogram and make it more difficult to interpret accurately. Moreover, samples from some contributors within a mixture may be more degraded than others. If that occurs, the donor profile for the more degraded sample may simply "drop out." 5 ER-684.

Moreover, the scientific journal articles attached to the declaration of Ryan Buchanan are replete with statements supporting Russell's position that analysis of complex mixtures is materially distinct from simple mixtures and that there is no scientific consensus as to a reliable method.

For example, one study states: "DNA typing of degraded samples can be a challenging task" when using the "currently commercially available STR kits." 5- -ER-877. The authors admitted that "many laboratories often do not attempt further analysis of these limiting samples." *Id.* The article also states that "low level DNA analysis is highly susceptible to stochastic effects, and can result in allele drop outs, allele drop ins, imbalance of heterozygote peak height and area, inconsistent peak size of stutter products and increased risk of laboratory-based contamination." *Id.*

Critically, the same study pointed out that the peaks for some minor contributors to mixed degraded samples resided at "stutter positions" (i.e. they appeared to be artifacts and would not be included in the profile). 5-ER-885-886. Accordingly, the stochastic effects that commonly arise with these samples can result in a false exclusion of an individual as a donor. *Id.*

Although Russell's case was litigated about eight years ago, there is still no scientific consensus that low level, degraded mixed DNA samples can be interpreted reliably. The most recent (June, 2021) draft report from the National Institute of Science and Technology establishes that there is no consensus as to how to interpret electropherograms produced from

such samples. *See People v. Smith*, 75 Cal.App.5th 694, 717-718 (2022)(granting request for judicial notice of the NIST draft report).

The NIST draft report explains in detail why the interpretation of complex DNA mixtures remains a significant and unresolved challenge. *DNA Mixture Interpretation: A NIST Scientific Foundation Review* (2021), pp. 165, 175, 181, 192.

The issues in this case are remarkably similar to those addressed in *United States v. Williams*, 104 Fed. R. Evid. Serv. 198, 2017 WL 3498694 (N.D.Cal. 2017) where the district court excluded DNA typing results as unreliable because the evidence samples were low level complex mixtures and the private forensic laboratory, Serological Research Institute (“SERI”), included DNA profiling data that fell outside the lab’s validated stochastic threshold. *Williams*, 2017 WL 3498694 at \* 9. Unlike Sorenson, the SERI lab *had* established a stochastic threshold for their testing. However, the district court still found that the method was not reliable. *Id.*

Another similar case is *State v. Rochat*, 269 A.3d 1177, 470 N.J. Super. 392 (2022), where the New Jersey Court of Appeals found that Low Copy Number (“LCN”) DNA analysis has not yet been generally accepted in the scientific community. LCN DNA testing is analysis of evidence containing only small amounts of DNA, using modifications to standard STR testing protocols to “increase its sensitivity.” *Rochat*, 269 A.3d at 1188-1189. Essentially, the *Rochat* opinion considers the same kinds of issues that arose in this case except the samples in this case were even more difficult to interpret because they were not only very small, they were also mixtures that had degraded.

The *Rochat* Court acknowledged that LCN analysis is more prone to stochastic effects than conventional DNA testing. *Rochat*, 269 A.3d at 1189-1190. The New Jersey Court of

Appeals held that LCN DNA analysis is not yet generally accepted in the scientific community and reversed the defendant's murder conviction. *Id* at 1207-1211.

In summary, the analysis in *Williams* and *Rochat*, not *Smith*, are relevant to the Court's decision in this case. As in *Rohat*, the test results in this case were produced using a method that has not yet been generally accepted in the scientific community. Because Sorenson's methods were new and novel, the trial court was required to hold a *Kelly-Frye* prong-one hearing where the prosecution would have been required to prove that there was a scientific consensus that degraded, low-level, complex DNA mixtures could be interpreted reliably.

**e. The trial court also violated Russell's right to due process when it failed to conduct a prong three *Kelly-Frye* hearing because there was substantial evidence that Sorenson failed to use correct scientific procedures**

Under prong three of the *Kelly-Frye* test, the proponent of the evidence must establish that correct scientific procedures were used to apply a valid scientific technique. *People v. Venegas* 18 Cal.4<sup>th</sup> 47, 81 (1998). Here, the Court of Appeal unreasonably determined the facts and unreasonably applied federal constitutional decisions concerning the due process right to a trial free of unreliable evidence when it held that the trial court correctly concluded that no prong three hearing was required.

**i. The California Court of Appeal unreasonably determined the facts when it held that Sorenson complied with the SWGDAM guidelines when it plainly did not**

The California Court of Appeal's conclusion that Sorenson complied with the SWGDAM guidelines is contrary to the record. 1-ER-47-48. Jeskie, the Sorenson analyst, admitted that Sorenson did not use a stochastic threshold in this case. 3-ER-306. Because Sorenson used an enhanced injection time without a stochastic threshold, the California Court of Appeal

unreasonably determined the facts when it concluded that Sorenson used reliable procedures that complied with the SWGDAM guidelines. 1-ER-46-48.

The Court of Appeal decision also unreasonably relied on the declaration of Ryan Buchanan, Sorenson's technical leader. 1-ER-47-48. While Buchanan's declaration stated that Sorenson's procedures fully complied with the SWGDAM guidelines, they plainly did not as the laboratory did not use a validated stochastic threshold to produce the DNA profile data. 5 ER 651.

Buchanan did not point to any language in the SWGDAM guidelines that permits the use of a "replicate" profile instead of a validated stochastic threshold. Instead, Buchanan argued that the use of replicate profiles was "well documented in the scientific community" and said there was general agreement that procedure a "significant improvement" for the analysis of mixed samples. 5-ER-652.

Buchanan's declaration avoids the real issue. While some scientists apparently agree that performing a second experiment *can provide useful additional information* when attempting to determine if a suspect's profile is present in a mixed sample, there was no evidence of any scientific consensus that repeating an analysis is a valid and reliable method for *excluding* a suspect as Sorenson purported to do here.

In fact, the prosecutor's own expert, Suzette Sanders, agreed with Russell on this point. When she was asked at trial whether replicate analysis was a reliable method for excluding a suspect, Sanders said "No." 3-ER-410.

ii. **The studies cited by prosecution expert Buchanan support Russell's argument that the method used in this case was unreliable**

In support of his argument that Sorenson used a correct procedure, Buchanan cited to five studies identified as Exhibits F, G, H, I, and J. Those articles do not support Buchanan's claim that a validated stochastic threshold is unnecessary. In fact, the articles *support* Russell's argument that Sorenson did not use a valid procedure to test the samples in this case.

Exhibit F states "low level DNA analysis is highly subject to stochastic effects . . . " 5-ER-877. Exhibit G points out that "stochastic phenomena tend to hamper interpretation" of degraded, low level DNA mixtures and "there is no general recommendation on the number of serial analyses needed or the number of reproducible observations required for an allele to be reported." 5-ER-893, 894. The same study states "Possible consequences include *false in- or exclusions in legal proceedings.*" 5-ER-893. (Emphasis added).

Here, the Sorenson analysts performed only two amplifications, which, based on Exhibit G to Buchanan's declaration, created a significant risk that Russell was falsely excluded. Exhibit G highlighted the risks of a false exclusion and simply did not support the procedures used by Sorenson in this case.

Exhibit I points out that with mixed, degraded and low level samples, allelic "drop out" is *far more frequent* than "drop in." 5-ER-911. In that study, only 41 of the 414 profiles amplified did not suffer any allelic drop out. 5-ER-912. This statistic dramatically illustrates the very real likelihood that Russell was falsely excluded.

**IV. Admission of the DNA Evidence Without a *Kelly-Frye* hearing was prejudicial because there was a significant likelihood that the testimony that Russell was excluded as a source of the samples from the pants and underwear was unreliable**

To prevail on his Due Process Clause claim, Russell must show that the error was prejudicial. *See Slovik v. Yates*, 556 F.3d 747, 755 (2009). There is prejudice if admission of the Sorenson analyst's testimony had a "substantial and injurious effect or influence in determining the jury's verdict." *Brecht v. Abrahamson*, 507 U.S. 619, 623 (1993).

Scientific testimony can be very persuasive to a jury. *See Ake v. Oklahoma*, 470 U.S. 68, 81 n.7 (1985). In particular, testimony about DNA evidence can be extremely powerful and, when it is inaccurately presented, presents a great risk that it will mislead a jury.

Identifying the killer in this case based on the DNA evidence alone was also particularly challenging because Zuniga worked as a prostitute. There were multiple male donors to the sperm sample taken from her vaginal swab and to the samples taken from her pants and underwear. 6-ER 943-945; 3-ER 280, 288, 294, 299.

The prosecutor theorized that the reason Russell's DNA profile was present in the vaginal sample and not on Zuniga's clothing is because Zuniga never stood up after Russell ejaculated and so his semen did not drain into her clothing. As a practical matter, that is a thin premise to support a conviction for murder. In that context, the validity and reliability of the DNA exclusion in this case is of paramount importance. Russell could not have had a fair trial if the method used to produce the DNA profiles did not reliably exclude him as a source of the samples from the pants and underwear evidence.

That is exactly what happened in this case. The prosecutor's own witness, Ventura County DNA Analyst Suzette Sanders, admitted at trial that replicate analysis cannot be used to

*exclude* a suspect as a donor from a mixed, degraded and low level DNA sample. 3-ER-410. Her testimony on that point is supported by the studies cited by Sorenson's own technical leader, which repeatedly emphasized the fact that testing of degraded, low level and mixed DNA samples often does not include profile information for all of the actual donors. See this Brief pp. 44-48.

Specifically, those articles repeatedly state that the rate of allelic drop out (where an individual's profile information simply does not appear on an electropherogram even though he did in fact contribute to the sample) is significantly higher when low level degraded samples are tested using enhanced detection methods. E.g., 5-ER-910-913; 6-ER-989, 993.

Despite these serious flaws, the prosecutor told the jury that the DNA evidence in this case was "really strong," "really reliable," "really accurate" and "very discerning." She said "It's the most sensitive DNA testing that's going on out there and it all points to Mr. Russell." 2-ER-103-104.

In summary, it is simply undisputable that admission of the DNA analyst's testimony excluding Russell as a donor to the pants and underwear samples was crucial to the verdict of guilt. The analysts, the prosecutor and the trial court stretched the limits of DNA technology too far and created an unacceptable likelihood of a false conviction in this case.

For all of these reasons, Russell was prejudiced when the trial court failed to conduct a *Kelly-Frye* hearing prior to admitting the DNA evidence in this case. If the Court had conducted a hearing and considered all of the evidence, it should have excluded the Sorenson analyst's testimony as in *Williams* and *Rochat*. Accordingly, this Court should grant a conditional writ.

**B. The California Court of Appeal unreasonably determined the facts and failed to apply the federal constitutional standard when it found that the trial court properly excluded defense evidence that Zuniga was murdered by another man**

**I. Russell's pre-trial motion seeking to introduce evidence that Sebastian Carrillo killed Zuniga**

Prior to trial, Russell filed a motion to introduce evidence at trial that Zuniga's intimate partner, Sebastian Carrillo, killed Zuniga. 4-ER-552. Russell presented evidence from police testimony given at the preliminary hearing, a conditional exam of witness Pauline Smith and defense investigation reports indicating that:

- Zuniga had been involved in an intimate relationship with Carrillo, who was married to Smith. 4-ER-561.
- On the night of Zuniga's murder, she sat next to Carrillo at the Army-Navy Café. The two argued and when Carrillo stood up to leave, he dropped a gun. He retrieved his gun and left shortly before Zuniga did. 4-ER-555-556. Two witnesses (Christine Oregon and Jaime Valdez) saw Carrillo in the café. Valdez described the gun as a 22 or 25 caliber, which is the type of weapon that was used to kill Zuniga. 4-ER-556.
- When Zuniga drove away from the café, Oregon saw her abruptly stop and remain in the middle of an intersection before turning. Oregon thought someone had been waiting for Zuniga in the back seat of the car. 4-ER-557.
- When interviewed by police, Carrillo initially lied. He denied that he had been with Zuniga on the night of her death, that he had dated her or lived with her. However, police discovered that on the night of the murder, Zuniga's car had been registered at a hotel under Carrillo's alias. When confronted, Carrillo eventually admitted he had been in a relationship with Zuniga and that he saw her on the night of her death. 4-ER- 560-562.

- When Zuniga's body was found, she was wearing a ring that Carrillo had given her in exchange for sex. The ring had belonged to one of Carrillo's other girlfriends, Nancy Valenzuela. Valenzuela believed that Carrillo had killed Zuniga and positioned her corpse so that the hand and ring were protruding from the ground as a threat to Valenzuela. 4-ER-562, 564-566.

- When interviewed by police, both Valenzuela and Smith said that Carrillo had been violent with them. 4-ER-565-566. Smith had also discovered a note in Carrillo's handwriting where he threatened to kill Zuniga if she did "not leave his family alone." 4-ER-563.

- After Zuniga's death, Carrillo moved to Mexico, where he had lived most of his life. He died a few weeks later. 4-ER-560.

The prosecutor's opposition brief argued that the defense evidence pointing to Carrillo showed no more than "motive." 4-ER-537, 538. The prosecutor argued that Carrillo's note was hearsay and the evidence was speculative. 4-ER-548. The prosecutor also argued that no evidence connected Carrillo to the crime scene and that Carrillo's violence toward Smith and Valenzuela was propensity evidence barred by California Evidence Code section 1101. 4-ER-549-550.

The trial court excluded the proposed defense evidence on grounds that there was no evidence to connect Carrillo to the murder. 4-ER-521.

The Court of Appeal affirmed. It held that the trial court did not abuse its discretion because much of the evidence was hearsay. 1-ER-53. It also held that the evidence might indicate that Carrillo had an opportunity to commit the crime, but that was insufficient to support its admission. *Id.* The Court of Appeal also held that "evidence of Carrillo's domestic violence toward Smith and/or Valenzuela was inadmissible propensity evidence." 1-ER-53. The Court of

Appeal also concluded that “the claimed connection between Carrillo and Zuniga's murder was “speculative.” 1-ER-54.

The Court of Appeal also held that the exclusion of the defense evidence was not prejudicial because the trial court's ruling “did not completely preclude appellant from offering evidence that a third party killed Zuniga.” 1-ER-54-55. It found that “Oregon was allowed to testify she had seen Zuniga arguing that night with a man who resembled Carrillo. 1-ER-55. The Court of Appeal also found that any error in excluding the evidence was harmless because the proof of Russell's guilt was substantial. 1-ER-55.

## **II. The Court of Appeal decision violated Russell's clearly established right to present defense evidence**

The Due Process Clause of the Fourteenth Amendment guarantees “a meaningful opportunity” to present a complete defense. *Crane v. Kentucky*, 476 U.S. 683, 690 (1986); *Taylor v. Illinois*, 484 U.S. 400, 409 (1988). Accordingly, an order excluding probative and reliable evidence that another suspect committed the charged offense violates the defendant's right to due process. *Chambers v. Mississippi*, 410 U.S. 284, 295-297 (1973).

It is also clearly established that exclusion of a reliable hearsay statement that is critical to the defense violates the Due Process Clause. *Chambers*, 410 U.S. at 302, 93 S.Ct. 1038; *Lunberry v. Hornbeak*, 605 F.3d 754, 762-763 (9<sup>th</sup> Cir. 2010); *Chia v. Cambra*, 360 F.3d 997, 1003-1004 (9<sup>th</sup> Cir. 2004); *Cudjo v. Ayers*, 698 F.3d 752, 767-770 (9<sup>th</sup> Cir. 2012).

In *Holmes v. South Carolina*, 547 U.S. 319 (2006), a state evidence rule precluded a defendant from presenting evidence that another person had committed the crime “where there is strong evidence of [a defendant's] guilt” 547 U.S. at 329. The Supreme Court held the rule violated the defendant's due process right to present a defense. 547 U.S. at 329.

On review, the court should evaluate (1) the probative value of the excluded evidence; (2) its reliability; (3) whether it is capable of evaluation by the trier of fact; (4) whether it is the sole evidence on the issue or merely cumulative; and (5) whether it constitutes a major part of the attempted defense. *Miller v. Stagner*, 757 F.2d 988, 994 (9th Cir. 1985).

Here, the trial court order excluding the defense evidence violated Russell's right to due process. As an initial matter, the AEDPA should not apply to this claim, because its constraints do not apply to claims that the state court adjudicated under an incorrect legal standard. *Panetti v. Quarterman*, 551 U.S. 930, 948 (2007). In this case, the Court of Appeal failed to apply the federal constitutional standard when it held that the trial court did not "abuse its discretion" when it excluded the defense evidence. 1-ER-50, 53.

The deferential abuse of discretion standard applied by the Court of Appeal applies to review of claims under state law, while Russell's federal due process claim should have been reviewed de novo. 1-ER-50, 53; *People v. Albarran*, 149 Cal.App.4th 214 (2007). Because the Court of Appeal failed to apply a de novo standard of review, the AEDPA does not apply and this Court should review the claim de novo.

Moreover, the trial court order violated Russell's right to due process under the *Miller* factors. *Miller*, 757 F.2d at 994. The probative value of the defense evidence that Zuniga had been murdered by Carrillo was high. Carrillo had threatened to kill Zuniga for interfering with his family. Moreover, Christine Oregon, an unbiased witness, described seeing Carrillo argue with Zuniga on the night of her death and also saw a gun that matched the caliber of the murder weapon fall from his pocket.

Oregon testified that Zuniga abruptly stopped in the middle of an intersection seconds as she was driving away from the bar, suggesting that her assailant had been waiting in her car. Because Carrillo must have been familiar with Zuniga's car, this evidence points to him as the person who abducted and killed Zuniga.

Carrillo's lies are also powerful evidence of his guilt. When questioned by police, Carrillo lied about his intimate relationship with Zuniga and the fact that he saw Zuniga shortly before her death. Under California law, evidence that a suspect lied to an investigating police officer in response to questioning is admitted as proof of consciousness of guilt. *People v. Kimble* 44 Cal.3d, 480, 496 (1988).

The evidence that Carrillo was a violent person who beat his wife and girlfriend was additional probative evidence that he was the person who attacked and murdered Zuniga. All of the defense evidence that pointed to Carrillo as the killer was also reliable because it was based on testimony of unbiased witnesses.

The evidence also should have been admitted under the third *Miller* factor, because the testimony about Carrillo's conduct and his prior statements is the kind of evidence that is routinely admitted at criminal trials as evidence of guilt.

The fourth *Miller* factor is perhaps the most compelling. The trial court excluded nearly all of the evidence that another suspect had the motive and opportunity to kill Zuniga and that he exhibited consciousness of his own guilt when he spoke to the police. None of the barred evidence was cumulative.

In addition, under the fifth *Miller* factor, the evidence of Carrillo's guilt should have been a major part of Russell's defense.

Finally, as set forth in more detail in section A of this brief, the remaining evidence, the DNA testimony, was unreliable because the samples were mixed, degraded, contained low levels of DNA and were tested using novel methods that are not generally accepted in the scientific community. Accordingly, the California Court of Appeal unreasonably applied *Chambers*, *Crane*, *Taylor* and *Holmes* when it excluded the evidence that Carrillo was the killer. The error was prejudicial for the reasons set forth above. Accordingly, this Court should grant certiorari and grant the writ.

## **CONCLUSION**

For the reasons set forth above, this Court should grant certiorari and grant the writ.

Dated:

Respectfully submitted,

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