IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT, DIVISION THREE

THE PEOPLE OF THE STATE OF CALIFORNIA, Plaintiff and Respondent, **v.** **JOHN PUCKETT,** Defendant and Appellant.	Case No. A121368

San Francisco County Superior Court, Case No. 201396
The Honorable Jerome T. Benson, Judge

RESPONDENT'S BRIEF

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STATEMENT OF THE CASE

On April 9, 2007, the San Francisco District Attorney filed an information charging appellant with one count of murder (Pen. Code, § 187). (1 CT 99.)

On February 21, 2008, a San Francisco jury convicted appellant of first degree murder. (8 CT 1712.)

On April 9, 2008, the trial court sentenced appellant to life in prison with the possibility of parole. (10 CT 2244.)

Appellant filed a notice of appeal on April 9, 2008. (10 CT 2247.)

STATEMENT OF FACTS

A. The Crime

In December 1972, 22-year-old Diana Sylvester had recently begun work as a nurse at the University of California, San Francisco (UCSF) Medical Center. (13 RT 1548; 15 RT 1821.) She lived in an apartment several blocks away in San Francisco's Inner Sunset district. (13 RT 1548, 1553.) Ms. Sylvester worked the night shift, typically from 11:00 p.m. to 7:00 a.m., and did so the evening of December 21-22, 1972. (13 RT 1553, 1566.) When Ms. Sylvester's roommate, Patricia Walsh, left the following morning before 7:00 a.m., Ms. Sylvester had not yet returned. (13 RT 1572.)

Diana Sylvester's downstairs neighbor and landlady was Helen Nigadoff.[1] (14 RT 1652-1653, 1729, 1754, 1758.) Shortly after 8:00 a.m. on December 22, 1972, Ms. Nigadoff heard loud noises, a "violent pounding on the floor," and a woman's scream coming from the apartment above. (14 RT 1729, 1757.) Concerned, Ms. Nigadoff began to climb the stairs to Ms. Sylvester's apartment when she saw a man at the top of the

[1] Ms. Nigadoff's name is sometimes spelled "Nigodoff."

stairs. (14 RT 1757.) He said, "'Go away. We're making love.'" (14 RT 1757.) Ms. Nigadoff retreated to call the police. (14 RT 1757.) Looking back, she saw the man pulling the shades down over Ms. Sylvester's front door. (14 RT 1757.) Moments later, Ms. Nigadoff heard someone descending the stairs from Ms. Sylvester's apartment, looked, and "'fully'" observed him: a "medium height, heavyset, chubby" Caucasian man with "curly brown hair, beard, mustache, clean-cut appearance, dark clothing and [denim] jacket . . . ." (3 CT 609; 14 RT 1695, 1722, 1737, 1756, 1758, 1762.)

At approximately 8:20 that morning, San Francisco Police Department (SFPD) officers arrived at Diana Sylvester's apartment. (14 RT 1752-1753.) There was no sign of forced entry. (14 RT 1688.) Ms. Sylvester was lying naked on the floor of her front room, dead. (13 RT 1637-1638, 1642-1643; 14 RT 1753; 15 RT 1829-1830.) Blood oozed from two stab wounds in her chest. (3 CT 608; 13 RT 1643; 14 RT 1755; 15 RT 1830, 1987.) One thrust had gone into Ms. Sylvester's heart, and one thrust had penetrated her heart and left lung. (15 RT 1868.) Her mouth was bloody, and she had several bloody cuts on her neck. (14 RT 1663; 15 RT 1851-1854, 1862; 18 RT 2691.) There were indications that Ms. Sylvester had been strangled. (15 RT 1870.) Ms. Sylvester's body was warm, and rigor mortis had not set in, indicating she had been killed recently. (15 RT 1830-1831, 1834.) Her clothing lay nearby. (15 RT 1836.)

Sperm cells in Ms. Sylvester's mouth and vagina were collected on swabs during the subsequent autopsy and preserved on slides. (15 RT 1872, 1879-1880.)

The case went unsolved for more than 30 years.

B. DNA Evidence

In 2003, the SFPD reviewed the file. (15 RT 2061.) A police department employee obtained the vaginal and oral sample slides from the medical examiner's office and delivered them to the SFPD crime laboratory on April 7, 2004. (15 RT 2067-2068, 2071; 18 RT 2491, 2568-2569.)

The crime laboratory conducted DNA testing on the slides. (15 RT 1871, 1881; 16 RT 2113, 2115, 2118.) The oral slide, created by swabbing the victim's mouth and transferring the cells onto the slide, contained a mixture of sperm cells and Ms. Sylvester's ephithelial cells. (16 RT 2118-2119; 18 RT 1871-1872.) The laboratory was able to determine a "full" nine-locus DNA profile for the non-sperm portion of the mixture, and a six-locus single-source "partial" DNA profile for the sperm portion. (8 CT 1735-1736, 1738; 16 RT 2123.) The DNA in the sample had degraded somewhat over the more than 30 years it was stored. (16 RT 2123-2124.) One of the six loci typed for the sperm cells included some "carryover" consistent with the non-sperm (i.e., the victim's) fraction of the mixture. (8 CT 1738-1739; 16 RT 2125, 2131, 2265; 17 RT 2349.) The data unambiguously indicated a single semen donor. (16 RT 2133, 2268-2269, 2270; 17 RT 2340.)

The vaginal slide produced a five-locus partial profile for the sperm cells. (16 RT 2178.) The laboratory tested a known reference sample for Ms. Sylvester's then-boyfriend, George Marino, and determined that he could not have been the source of the sperm on the oral autopsy slide, but could have been the source of sperm cells on the vaginal slide. (16 RT 2172; 16 RT 2181-2183; 17 RT 2360.) Ms. Sylvester and Mr. Marino had frequent consensual sex, and Mr. Marino did not use a condom. (17 RT 2471, 2475.) Appellant was later excluded as the donor of semen on the vaginal slide, assuming a single semen contributor. (16 RT 2182-2183.)

On July 13, 2005, the laboratory uploaded a DNA profile for the oral slide sperm contributor into the state's DNA database (see Pen. Code, § 295 et seq.). (1 CT 7, 282.) Instead of the six-locus profile reported by the SFPD laboratory and described at trial, an eight-locus profile was uploaded which included alleles at two loci that were ultimately described at trial as "inconclusive." (1 CT 7, 47, 70, 73.)

The semen profile matched appellant's DNA profile, collected in 2000, at the eight loci available. (1 CT 7, 70, 283.) The crime scene DNA profile did not match any other offender in the state database. (1 CT 70.)

The SFPD crime lab subsequently and independently analyzed a known reference DNA sample collected from appellant. (16 RT 2136; 18 RT 2634.) The analyst concluded that appellant could not be excluded as a possible contributor of the sperm cells on the oral slide. (16 RT 2136.) All of the data generated during testing were consistent with that conclusion. (16 RT 2164; 17 RT 1348.) The six-locus DNA profile attributed to the sperm cells is rare. It is expected to occur randomly no more often than once in 1.1 million Caucasians, once in 8.2 million African-Americans, once in 11 million Hispanics, and once in 1.7 million Asians. (16 RT 2165; 20 RT 3064.) These statistical estimates take into account the mixture of DNA at one locus and are conservative, if not overly conservative. (16 RT 2207, 2253; 17 RT 2352, 2358, 2408; 20 RT 3063-3065.) In 1970, just under 18 million Caucasians resided in California. (21 RT 3338.)

C. Non-DNA Evidence

Appellant is a Caucasian man who stood five feet eight inches tall at his arrest. (15 RT 2024, 2029.) He was 38 years old when Diana Sylvester was raped and murdered. (16 RT 2094.) In December 1972, appellant lived in the San Francisco area, and, more specifically, as of March 1972 he resided at 351 Turk Street in San Francisco—approximately three and a half miles from the murder scene. (7 CT 1549; 8 CT 1628; 16 RT 2100.)

Based on old photographs, appellant's appearance in December 1972 matched the physical description of Ms. Sylvester's killer provided by Helen Nigadoff. In a photo labeled "Christmas 1972," appellant had a beard and "a bit of a mustache," and looked "kind of chubby." (15 RT 2024; 18 RT 2712.) In photos labeled "Christmas Eve, 1972" and "December 1972" appellant had a light beard of "a couple days' growth," had curly or wavy hair, and was "heavyset" and "chubby" with a "clean cut" appearance. (15 RT 2025, 2057-2059.)

Appellant had ties to UCSF and the health care profession. In mid- to late 1971, appellant pursued health-care employment in San Francisco, and by 1972 he was working as a nurse's aid and a pharmacy clerk. (16 RT 2098-2099, 2100.) When looking for work in August 1971, appellant corresponded with an organization located three and a half blocks from the apartment where Ms. Sylvester was murdered 16 months later. (16 RT 2098; 18 RT 2650-2651.) In February 1973, appellant studied at the UCSF library, using the same shortcut through the UCSF parking garage to the library that Ms. Sylvester had used to travel to and from her work. (7 CT 1546; 16 RT 2101.) (7 CT 1546-1547; 13 RT 1555-1556; 16 RT 2101.)

Appellant has a history of violent sexual offenses. On February 21, 1977, appellant kidnapped 24-year-old Arlene M. in San Francisco after pretending to be a police officer and asking for a ride in her car. (17 RT 2291-2294.) He held an ice pick to her face, forced her to drive to an isolated spot near Point Reyes, fondled her breasts and genitals, forced her to orally copulate him, and ejaculated in her mouth. (17 RT 2296, 2299, 2303, 2312, 2314.) Before the sexual assault, appellant told her that he wanted her to remove her clothes and "wanted to make love" to her. (17 RT 2300.) Among the other trauma inflicted, appellant's attack with the ice pick cut Arlene M.'s face. (17 RT 2296, 2312.)

On April 27, 1977, appellant kidnapped 23-year-old Cynthia S. from a parking lot on the College of Marin campus. (18 RT 2534, 2540.) Appellant pretended to be a police officer to get close, then held a knife at Cynthia S.'s throat, choked her with his other hand, and forced his way into her car. (18 RT 2535-2540.) He drove them to a campground in Marin and parked. (18 RT 2540-2541.) Appellant made Cynthia S. remove her clothes and orally copulate him. (18 RT 2540-2542.) Then he raped her. (18 RT 2542.) Among the other trauma inflicted, appellant's knife attack cut the side of Cynthia S's neck. (18 RT 2439, 2543.)

On May 26, 1977, appellant kidnapped 24-year-old Leslie B. from the garage of her apartment building in San Francisco's Inner Sunset district. (18 RT 2499, 2507-2508, 2520, 2531.) Leslie B. was in graduate school and worked at the Veterans Administration hospital near Ocean Beach. (18 RT 2501, 2502.) Appellant pretended to be a police officer to get close, then held an ice pick to Leslie B.'s neck and forced her to drive off with him. (18 RT 2505, 2508-2511.) Appellant took over the driving, and stopped the car in Golden Gate Park, where he told Leslie B. that he wanted to "make love" to her. (18 RT 2513.) Appellant assaulted her by fondling her genitals. (18 RT 2514.) He then drove to an isolated location in Marin County. (18 RT 2515.) Appellant made Leslie B. remove her pants, forced her to orally copulate him, and raped her. (18 RT 2514-2517.)

Appellant pleaded guilty to multiple counts of rape and kidnapping based on the three 1977 crimes. (2 CT 351, 356; 5 CT 1023, 1024.) He was sentenced to state prison.

When interviewed by investigators following his arrest for Diana's murder, appellant claimed not to remember kidnapping and assaulting Arlene M., Leslie B., and Cynthia S. (7 CT 1549, 1552, 1553.) When asked about Diana Sylvester's killing, appellant likewise responded, "I don't remember this at all." (7 CT 1552.)

The police arrested appellant on April 21, 2006, at his home in Stockton. (15 RT 2001.) Soon after the officers arrived, appellant told his wife, "I guess I won't be seeing you any more," then sat down to eat breakfast. (15 RT 2004-2005, 2032.)

ARGUMENT

I. THE JURY HEARD THE APPROPRIATE DNA STATISTICS

Appellant argues that the trial court erred by granting a prosecution motion to exclude evidence that, when any DNA profile with the rarity that characterizes the evidence profile in this case is searched against any DNA database the size of the one searched in this case, the statistical probability of a coincidental match is approximately one in three. (AOB 29-52.) Appellant's argument lacks merit.

The trial court did not abuse its discretion because the "one in three" figure at best would have been meaningless to the jury, and at worst would have been affirmatively misleading regarding the significance of the DNA database match. The "database match probability" statistic advocated by the defense at trial fails to account for the unique facts of the crime and for the composition of the database. It does not come remotely close to conveying the probability that an innocent *yet plausible* suspect was coincidently identified in the database search—the only probative question from the jury's perspective. Moreover, a considerable amount of credible research suggests that a DNA database match is at least as probative, if not more so, of the perpetrator's identity than a DNA profile match resulting from a non-database investigation.

A. Facts

The jury heard that appellant's DNA profile matched the perpetrator's profile at each available data point, such that he is a potential source of sperm cells found in Diana Sylvester's mouth postmortem. (16 RT 2136-

2137.) The jury also heard testimony concerning the rarity of the sperm cells' six-locus DNA profile; namely, that that particular pattern of alleles is expected to occur randomly in 1 out of 1.1 million Caucasian persons.[2] (16 RT 2165.) This is known as the random match probability statistic. (See *People v. Wilson* (2006) 38 Cal.4th 1237, 1244 ["'[R]andom-match probability is meant to measure the rarity of the genetic profile detected in the evidence sample and in the defendant by estimating the frequency with which it occurs in the population of possible suspects'"].)

Citing *People v. Johnson* (2006) 139 Cal.App.4th 1135, the trial court granted a pretrial prosecution motion to preclude evidence that appellant was first identified by way of a match in California's offender DNA database. (5 CT 1063; 11 RT 283.) As a corollary to that motion, the prosecution asked the trial court to "exclude evidence of the 'database match probability' statistic" on relevance and Evidence Code section 352 grounds. (5 CT 1063, 1086-1089.)

The database match probability answers a question *other* than "How rare (or common) is the DNA profile in question?" or "With what frequency can the DNA profile in question be expected to appear randomly in a given population?" Those questions are answered with the random match probability (i.e., rarity) statistic. (5 CT 1076, 1109.) Instead, the database match probability statistic describes the probability of a coincidental match to a given DNA profile when a database of a given size is searched. (5 CT 1076.) It is generated by multiplying the random match probability by the size of the database searched.[3] (5 CT 1076, 1109.)

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[2] While statistics were provided for other racial groups as well, the Caucasian figure is the most probative because eyewitness Nigadoff described the perpetrator as Caucasian.

[3] Thus the database match probability is often referred to as the "Np" formula, where N = the number of profiles in the database searched and p = (continued…)

The admissibility of the database probability statistic was thoroughly briefed and argued by the parties (3 CT 667-707; 5 CT 1076-1079, 1086-1089; 7 CT 1483-1485; 11 RT 247-249, 283), and over 30 declarations and scientific publications addressing the issue were provided for the trial court's consideration (4 CT 723-970, 5 CT 1109-1110; 6 CT 1255-1276, 1308-1312; 7 CT 1490-1492, 1507-1521, 1562; 11 RT 249). The court entertained a lengthy hearing in which defense witness Dr. Laurence Mueller advocated the presentation of the database probability statistic to juries in all "cold hit" cases, i.e., cases where the defendant is first identified by way of a DNA database search. (19 RT 2806-2851.)

Dr. Mueller testified that in this case, given that the perpetrator's six-locus DNA profile has a random match probability of 1 in 1.1 million Caucasians, there is a corresponding and approximate 1 in 3 probability of a coincidental match in the course of searching a database the size of the one that was searched in this case. (19 RT 2933-2834.) This opinion was based on the concept that the more profiles one examines looking for a particular one, the more likely it is that the target profile will appear by chance alone. (19 RT 2832.)

Significantly, the calculation offered by appellant's witness did not account for the fact that the six-locus profile discussed at trial was never searched in a DNA database; the SFPD laboratory uploaded an *eight-locus* profile, which contained two additional loci and thus would have had a rarer random match probability statistic and correspondingly different database match probability statistic. Accordingly, Mueller's "1 in 3" figure misrepresented the event precipitating appellant's identification as the

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(…continued)
the random match probability for the evidence profile in question. (4 RT 761.)

perpetrator. (See Chakraborty, *Statistical Weight of a DNA Match in Cold-Hit Cases* (2009) 11:3 Forensic Science Communications, pp. 4-5 <http://www.fbi.gov/hq/lab/fsc/current/undermicroscope/2009_07_micro01.htm> [as of Jan. 19, 2010] ["The RMP value (1 in 1.1 million) reported to the court in [*Puckett*] was based solely on five and a half loci, because some alleles in the evidence sample were below the analytical threshold set by the laboratory. Thus the RMP value of 1 in 1.1 million . . . is not the one that should enter the DMP [Database Match Probability] calculation giving the resultant number of 1 in 3 (approximately)"].)

Following the hearing, the trial court ruled that the defense would be permitted to challenge the accuracy of the DNA statistics presented by the prosecution, but precluded evidence of the database match probability. (19 RT 2852 [referring to Dr. Mueller's discussion of that subject in a letter dated November 20, 2007, appearing at 7 CT 1560].)

B. Standard of Review

Generally, "[a] trial court's decision to admit or exclude evidence is reviewable for abuse of discretion." (*People v. Vieira* (2005) 35 Cal.4th 264, 292.) The exclusion of evidence "will not be disturbed except on a showing the trial court exercised its discretion in an arbitrary, capricious, or patently absurd manner that resulted in a manifest miscarriage of justice [citation]." (*People v. Rodriguez* (1999) 20 Cal.4th 1, 9-10.) In particular, "[w]hen expert opinion is offered, much must be left to the trial court's discretion." (*People v. Carpenter* (1997) 15 Cal.4th 312, 403; see also *People v. Page* (1991) 2 Cal.App.4th 161, 187 ["As a general rule, a trial court has wide discretion to admit or exclude expert testimony"].)

C. The Trial Court Properly Exercised its Discretion to Exclude the Database Probability Statistic under Evidence Code Section 352 and As Irrelevant

The trial court complied with controlling precedent set forth in *People v. Nelson* (2008) 43 Cal.4th 1242, which considered the question of the appropriate statistic(s) to present to the jury in "cold hit" DNA cases. *Nelson* held that the expression of a DNA profile's overall rarity with a random match probability statistic, as generated by the product rule, is relevant and admissible in every "cold hit" case.[4] (43 Cal.4th at p. 1266.) "'It is relevant,'" observed *Nelson*, "'for the jury to know that most persons of at least major portions of the general population could not have left the evidence samples.' [Citation.] We agree with other courts that have considered the question [citations] that this remains true even when the suspect is first located through a database search." (*Id*. at p. 1267; see also *People v. Johnson*, *supra*, 139 Cal.App.4th at pp. 1135, 1147, 1155; *United States v. Jenkins* (D.C.Ct.App. 2005) 887 A.2d 1013, 1025; *United States v. Davis* (D.Md. 2009) 602 F.Supp.2d 658, 677.) "'[T]he database is not on trial,'" noted the *Nelson* court. "'Only the defendant is.'" (43 Cal.4th at p. 1267.) The population rarity statistics presented by the prosecution in this case were thus properly admitted and relevant to the jury's evaluation of the significance of the profile match.

The Supreme Court in *Nelson* left open the possibility that the database match probability "might *also* be admissible" as probative

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[4] California courts have widely endorsed as valid and admissible the mathematical methodology used by the SFPD—and DNA laboratories nationwide—to calculate this "random match probability" statistic. (See, e.g., *People v. Nelson*, *supra*, 43 Cal.4th 1242, 1258; *People v. Soto* (1999) 21 Cal.4th 512, 524-525, 541; *People v. Reeves* (2001) 91 Cal.App.4th 14, 31, 38-42.)

evidence in cold hit cases involving large databases and evidence DNA profiles more common that that considered in *Nelson*—where 1 in 930 sextillion was the statistic most favorable to the defendant. (43 Cal.4th at p. 1267, fn. 3.) The court did not mandate that the jury hear the database probability statistic in every cold hit case, nor were the nuances or implications of presenting the database match probability explored in any detail in *Nelson*'s single footnoted reference. Given the true nature and potentially deceptive meaning of the database match probability statistic, however, its exclusion from evidence as irrelevant and pursuant to Evidence Code section 352 was not an abuse of discretion in this case.

1. The database match probability statistic was not relevant

A jury's pragmatic fact-finding mission requires reliable, relevant, and probative evidence that is neither misleading or overly time-consuming. In this case, the jury had to determine whether appellant was the perpetrator, or an innocent person who (1) coincidently shared the perpetrator's DNA profile, (2) coincidently matched the perpetrator's description, (3) coincidently lived in and around San Francisco at the time of the crime, and (4) coincidently committed a number of other violent sex crimes with factual similarities to the assault on Ms. Sylvester. To that end, the jury would have found evidence about the statistical probability that the DNA database search produced a "hit" to a *plausible* but innocent suspect probative. But the "1 in 3" database match probability statistic would not have provided that evidence. It was not, therefore, relevant.[5]

The mere probability of a coincidental match to an offender in a database, without regard to which offenders in the database are plausible or

[5] Relevant evidence is evidence that tends to prove or disprove a disputed and consequential fact. (Evid. Code, § 210.)

even possible perpetrators, would have been irrelevant evidence largely meaningless to the jury, and was properly excluded by the trial court: "In determining how likely it is that someone other than the defendant left the evidence DNA, the 'others' of concern to the jury are only those who might plausibly be suspected of having left the DNA if the defendant did not." (4 CT 774 [Lempert, *After the DNA Wars: Skirmishing With NRC II* (1997) 37 Jurimetrics 439, 457].)

The pragmatic necessity of focusing on a population of realistic suspects when evaluating whether a defendant is falsely implicated by a DNA database match is also a focus of the scholarship of Professor David Kaye, whose thinking on questions of DNA statistics the California Supreme Court relied upon extensively in *People v. Wilson*, *supra*, 38 Cal.4th at pages 1243 & footnote 1, 1244, 1245, 1246, 1247, 1248 and *People v. Soto*, *supra*, 21 Cal.4th at pages 515, footnote 2, 538, 539, 540, 541. Professor Kaye explained:

> If individuals who clearly could not have committed the crime will not be charged then there is no risk that they will be falsely convicted. Therefore, to the extent that non-viable suspects are included in the database, np [the database match probability statistic] does not provide the risk of a false decision . . . . Instead of multiplying by n [the number of profiles in the database], we should be multiplying by the number n^1, which represents the number of potentially realistic suspects within the database.

(Kaye, *Rounding Up the Usual Suspects: A Legal and Logical Analysis of DNA Trawling Cases* (2009) 87 N.C. L.Rev. 425, 490.) The risk of appellant being innocent but coincidently identified in the database was not represented by the database match probability statistic championed by appellant because the DNA database searched in 2005 was far from representative of a suspect population. (19 RT 2849-2850.) According to Professor Kaye, the "1 in 3" figure advocated by the defense in the *Puckett*

case "is, strictly speaking, irrelevant . . . ." (Kaye, *supra*, 87 N.C. L.Rev. at p. 489.)

Most significantly, the database in which appellant was identified contained mostly the DNA profiles of people who were not old enough to have committed the crime in 1972. As Professor Kaye explained: "In *People v. Puckett*, for example, many of the 338,000 individuals in the 2004 [*sic*] database were not even alive when Diana Sylvester was killed over 30 years ago. Had the matching software been designed to skip over their profiles, the outcome would have been no more (or less) probative, but the Np rule would have produced a smaller adjusted probability." (Kaye, *supra*, 87 N.C.L. Rev. at p. 490; see also 6 CT 1312 [Dr. Chakraborty noting in a declaration that "Dr. Mueller apparently neglected the fact that of the 338,711 subjects of the offenders' database, a substantial proportion may not have been of the age to commit crime in 1972, and hence, I surmise that the 'Np' rule was misleadingly employed by Dr. Mueller in his declaration"].)

Assuming that Ms. Sylvester's killer was at least 18 years old, any profile belonging to a database offender younger than 51 years old in 2005, when the search took place, was irrelevant. This would eliminate a massive swath of the database from consideration. Much of the DNA database population in 2005 would have come from felons in the prison system. (See Pen. Code, § 296, subd. (a)(1) [all convicted felons must provide a DNA sample].) Many of those felons were not old enough in 1972 to have committed the crime: As of December 31, 2005, only 5.2 percent of male prison inmates were 55 years old or older, and only 10.1 percent of male parolees were 50 years or older. (California Dept. Of Corrections and Rehabilitation, *California Prisoners and Parolees 2005*, at pp. 23, 83 < http://www.cdcr.ca.gov/Reports_Research/Offender_Information_Services _Branch/Annual/CalPris/CALPRISd2005.pdf> [as of Jan. 19, 2010].)

As Mueller conceded, the database used in a "plausible perpetrator" probability calculation also would have to exclude profiles attributable to females, duplicate profiles, and anyone already incarcerated at the time of the 1972 crime. (19 RT 2849; see 5 CT 1104 ["It is widely known that the current offender DNA databases unavoidably contain duplicate profiles . . . ."].) In addition, any offender in the database who had a solid alibi or could not have been in San Francisco on December 22, 1972, would have to be excluded, as would any offender in the 2005 database who clearly did not match the perpetrator's physical description. This would include non-Caucasian men, who likely account for a majority of database profiles. (See Dept. of Corrections and Rehabilitation, *Prison Census Data as of June 30, 2005*, at p. 7 <http://www.cdcr.ca.gov/Reports_Research /Offender_Information_Services_Branch/Annual/CensusArchive.html> [as of Jan. 19, 2010] [as of June 2005, 28.4 percent of inmates were Caucasian].) Thus, testified Mueller, one could "parse [the database] down substantially," resulting in a different, and much lower, probability of a random match to a plausible but innocent subject. (19 RT 2850.)

The reasoning adopted in *People v. Johnson*, *supra*, 139 Cal.App.4th 1135, which *Nelson* cited and followed, is in accord. These cases made it clear that it would not be an abuse of discretion for a trial court to exclude the database match probability statistic because the relevant population for the jury to consider "is the population of possible perpetrators, not the population of convicted offenders whose DNA has been entered into CODIS. The fact appellant was first identified as a possible suspect based on a database search simply does not matter." (*Johnson*, *supra*, 139 Cal.App.4th at p. 1151.) "'[T]he database is not on trial. Only the defendant is.'" (*Nelson*, *supra*, 43 Cal.4th at p. 1267.)

The database match probability also fails as a measure of the significance of the match because, as an abstract mathematical concept, it

fits poorly in the fact-specific context of a criminal investigation. Offender databases are not random collections of profiles representative of general populations, as underlies random match probability statistics and, by extension, database match probability statistics. (See *People v. Nelson*, *supra*, 43 Cal. 4th at pp. 1258-1259.) Instead, offender information is collected on the expectation of recidivism, and law enforcement databases are therefore designed to contain the offender profiles of the perpetrators being sought. (6 CT 1311-1312; see also Chakraborty, *supra*, 11:3 Forensic Science Communications, at p. 5.) Recidivism assumptions would be all the more powerful in cases where the crime was committed many years ago, giving the perpetrator ample time to commit other crimes qualifying him for inclusion in the database. (See *Samson v. California* (2006) 547 U.S. 843, 853-854 [discussing California's high recidivism rates].) The database worked exactly as intended when it matched appellant to the 1972 evidence, mitigating any exculpatory implications of the database match probability statistic proposed by appellant. Design and intention were at work, not randomness.

So too is there evidence that the larger the database, the more likely—not less likely—a match is to the actual perpetrator. (Chakraborty, *supra*, 11:3 Forensic Science Communications, at p. 5.) A truly population-wide DNA database, for example, would entail relatively common database match probabilities, but those statistics would be meaningless because perpetrators, by definition, would always be in the database and consequently identified. This conclusion contradicts appellant's premise that, based on the database match probability statistic, the larger the database the more a database match probability points toward innocence.

Finally, the database probability statistic is problematic because it juxtaposes the random match probability of a profile appearing in a single racial group against a heterogeneous multiracial database. (See *People v.*

Wilson, *supra*, 38 Cal.4th at p. 1245 ["'Profile frequencies within the major racial groups in the United States (Caucasian, African-American, Hispanic, East Asian, and Native American) vary to such an extent that separate DNA databases are maintained for the purpose of providing accurate estimates of profile frequency'"].)

The database match probability fails to provide any degree of useful information about plausible but innocent suspects, and was irrelevant and properly excluded.

2. Introduction of the database match probability would have confused the jury and invited entrapment in the "defense fallacy"

The specter of a confused jury loomed large had the database match probability statistic been admitted, because jurors would have had to appreciate many subtle but significant points to truly understand the evidence: (1) The database match probability statistic is not interchangeable with, or a substitute for, the random match probability statistic. (See *People v. Nelson*, *supra*, 43 Cal.4th at p. 1264 [noting that the two statistics answer completely different questions]);[6] (2) The "1 in 3" number is based on a six-locus profile, not the eight-locus profile actually searched in the database; (3) The database match probability figure does not reflect the probability of a plausible but innocent person being coincidently identified as the perpetrator because the database contained many, if not mostly, offenders who could not have committed the crime; (4) The database statistic does not convey a statistical probability of guilt (or

[6] Appellant himself expresses this confusion in his opening brief: "[T]he jury was erroneously led to believe that the odds of a coincidental match between appellant's DNA profile and the crime scene evidence profile was a remote 1 in 1.1 million, when in reality it was a mere 1 in 3" (AOB 48); "What the jury did not know . . . was that the real chance of a coincidental match in this case was 1 in 3" (AOB 51).

innocence), because it does not take into account non-DNA corroborating evidence; (5) The database statistic fails to account for the intentional construction of DNA databases to include and identify recidivist perpetrators. It is highly doubtful that the jury would have been fully aware of the nuances, premises, and implications of the statistic. (See Regensburger, *DNA Databases And The Fourth Amendment: The Time Has Come To Reexamine The Special Needs Exception To The Warrant Requirement And The Primary Purpose Test* (2009) 19 Alb. L.J. Sci. & Tech. 319, 337 ["If the database match probability estimate were admitted, it could potentially inject confusion, not clarity, into the process"]; see also *People v. Johnson*, *supra*, 139 Cal.App.4th 1135, 1155 [noting "significant relevancy and Evidence Code section 352 issues"].) Even defense witness Mueller acknowledged that evidence of both a DNA profile's rarity—or random match probability—and the probability of a coincidental match when searching a database of a given size would create a danger of confusing a jury. (19 RT 2836.)

Finally, had the database match probability statistic been received into evidence, there would have been a substantial risk that the jury erroneously would equate the unmodified database match probability statistic with the probability of innocence—a logical misstep known as the "defense [or defendant's] fallacy." (See, e.g., *United States v. Chischilly* (9th Cir. 1994) 30 F.3d 1144, 1157; Berger, *Laboratory Error Seen Through the Lens of Science and Policy* (1997) 30 U.C.Davis L.Rev. 1081, 1107 ["The 'defendant's fallacy' occurs when defense counsel suggests, or jurors conclude, that anyone with the same profile as the defendant is as likely as the defendant to be the source of the crime scene sample"].)

In sum, appellant's attempt at trial to use the database match probability statistic to quantify the odds of innocence was based on facts so

strikingly incomplete that it would have invited confusion and fallacious reasoning. As *People v. Cella* (1983) 139 Cal.App.3d 391 warned:

> Both jurists and scholars note the danger of enticement posed to the trier of fact by the seemingly scientific, intellectual mathematics machine. Such technique blindly overlooks such profound problems of integrating mathematic purity with the countless nonmathematic variables that exist in reality. It quantifies with deceptive exactitude "fuzzy imponderables." If mathematical probabilities are to be of any use in the courtroom setting, all crucial variables must be quantified exactly. Cella's attempt at proof of fact by use of mathematical probabilities has left out a host of "soft variables"—those factors to which meaningful numbers are hardest to attach.

(139 Cal.App.3d at p. 405.) The inapplicability, confusion, and misleading impressions that would have flowed from introduction of the database match probability more than justified the exclusion of that evidence under Evidence Code section 352 grounds.

3. The database probability statistic is no more probative of the perpetrator's identity than the random match probability statistic

A prominent body of scholarship suggests that the database match probability statistic is no more probative, or even less probative, of the significance of a DNA database match than the random match probability statistic. In his 2009 article using this case as an illustration, Professor Kaye concluded that presenting the jury with the random match probability alone is neither unfair nor misleading, and need not be accompanied by the database match probability statistic. (Kaye, *supra*, 87 N.C. L.Rev. at p. 431.) "[A] jury that learns that the match comes from the [database] trawl should not regard the match as less significant than the same match in a confirmation case [i.e., not involving a database identification]. Consequently, presenting the random-match probability and ignoring the fact that it came from a search is not prejudicial to the defendant." (*Id*. at p.

461.) Professor Kaye endorsed the "Bayesian" premise that a DNA database search not only identifies the defendant, but also excludes many other people who do not match, making it more probable—not less probable—that the defendant is the source of the crime scene DNA. (*Id*. at p. 461.)

"Basic algebra," wrote Professor Kaye, "provides an informal proof of the claim that, contrary to the perception in the media of 'a national problem' with 'numbers that exaggerate the significance of DNA matches in "cold hit" cases' and the defense arguments in cases like *Puckett*, a cold hit in a suitable database should be at least as convincing as a confirmation match." (Kaye, *supra*, 87 N.C. L.Rev. at p. 462.) More specifically,

> regardless of whether a [database] trawl comes before, after, or without substantial nongenetic evidence, a complete trawl of a large database produces a large change in the prior odds. As such, it provides probative evidence. Because the change in probability is slightly greater than for a nontrawl DNA match to the same individual, the case can be presented, if need be, without mentioning the trawl and without adjusting the random match probability.

(*Id*. at p. 492.) The California Supreme Court acknowledged and described Professor Kaye's "Bayesian"[7] approach to DNA statistics in cold hit cases, also known as the "Balding-Donnelly" theory in reference to proponents Professors David Balding and Peter Donnelly. (See 4 CT 866-871; *People v. Nelson*, *supra*, 43 Cal.4th at p. 1263.) The trial court referenced its understanding of the Bayesian/Balding-Donnelly principles in the course of hearing oral argument about the issue. (11 RT 248.)

Professor Kaye's conclusion is echoed in the mainstream scientific community. Application of the Balding-Donnelly likelihood ratio

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[7] Reverend Thomas Bayes created the formula in the 19th century. (*Nelson*, *supra*, 43 Cal.4th at p. 1263.)

methodology indicates "that the value of a match in a 'cold hit' case is, in fact, *more* probative than one in a 'confirmation' case" because in addition to the match the database search excluded hundreds of thousands of other persons from suspicion. (3 CT 698-699; see also 4 CT 858, 866-869, 876; *People v. Nelson*, *supra*, 43 Cal.4th at p. 1263; Balding & Donnelly, *Evaluating DNA Profile Evidence When the Suspect Is Identified Through A Database Search* (1996) 41:4 J. of Forensic Sciences 603, 606.) Balding and Donnelly state similarly that "in the database search case, under reasonable assumptions, the DNA evidence will be slightly stronger than in [non-database DNA cases]." (4 CT 866; see also 4 CT 876 [Evett & Weir, Interpreting DNA Evidence: Statistical Genetics for Forensic Scientists (1998) [evidence of guilt based on likelihood ratios is stronger following a DNA database search than in a DNA case not involving a database identification]].)

Therefore, according to published scientific research provided by appellant, the fact that a DNA profile of a given rarity was found in a database of a given size does not, as appellant asserts in his opening brief, "cast serious doubt on the prosecution's case" (AOB 45-46), but rather enhances the prosecution's case.

Dr. Ranajit Chakraborty, a prosecution witness at trial, similarly assessed the relative merits of presenting a jury with the random match probability and/or the database match probability in cold hit cases, and determined that in "cold-hit cases in which the suspect is identified in the absence of valid alibis for not having access to the crime scene, a DNA match can and should be quantified by RMP alone without any additional changes." (Chakraborty, *supra*, 11:3 Forensic Science Communications, at p. 7.) Dr. Chakraborty is recognized as "a preeminent scholar in his field and frequent collaborator with the head of the FBI's DNA laboratory" (*United States v. Jenkins*, *supra*, 887 A.2d at p. 1018), and as "a preeminent

expert in statistics and human genetics, with over 20 years of study involving human DNA and genetics" (*State v. Copeland* (Wash. 1996) 922 P.2d 1304, 1318). The California Supreme Court provided a lengthy and laudatory summary of Dr. Chakraborty's qualifications in *People v. Soto*, *supra*, 21 Cal.4th at p. 527, fn. 20.

The one defense witness to testify on this issue espoused a contrary view. Dr. Mueller opined that in a cold hit case, a jury should not be given the random match probability statistic at all, because it is "irrelevant"—a conclusion rejected soundly in *Nelson*. (19 RT 2837; *People v. Nelson*, *supra*, 43 Cal.4th at pp. 1266-1267.) Mueller is a perennial criminal defense witness whose credibility and qualifications have been questioned by trial courts. (See, e.g., *People v. Reeves*, *supra*, 91 Cal.App.4th at pp. 37, 41 [Dr. Mueller "biased and not entirely credible"]; Moenssens, *DNA Evidence and Its Critics—How Valid Are the Challenges?* (1990) 31 Jurimetrics 87, 102, fn. 60 [recounting a trial judge's remarks on Dr. Mueller's "financial interest and shifty nature of his criticism"].)

Even Dr. Mueller conceded, however, that there are "pros and cons" underlying all of the various suggestions made by scientists concerning the appropriate way to express the statistical significance of a DNA profile match following a database search, and that there are "a lot of things . . . that could be improved upon" with respect to his suggestion that the jury be provided with a "1 in 3" database probability figure. (19 RT 2851.) He described the debate about statistics in cold hit cases as "unsettled," noting that some scientists have criticized the database probability approach he advocated. (19 RT 2851.) In pretrial briefing, defense counsel as well acknowledged that "well-qualified, highly respected experts . . . disagree on the scientifically proper statistical analysis for cold hit DNA evidence." (3 CT 682.)

At the very least, in light of the conflicting views presented in scientific and other academic literature concerning the relevance and probative value of the database match probability statistic, in conjunction with Dr. Mueller's concessions concerning that statistic's imperfect nature, the trial court acted well within its discretion to exclude the database match probability statistic on Evidence Code section 352 grounds, if not relevance grounds as well.

D. The Exclusion of Evidence Did Not Violate Appellant's Constitutional Rights

Appellant claims that the exclusion of the database match probability statistic violated his due process right to present a defense under the Fourteenth Amendment, his right to confront adverse evidence under the Sixth Amendment, and unspecified state constitutional rights. (AOB 47-48.) Appellant has forfeited his constitutional claims, however, because he failed to make a specific and timely objection to the exclusion of the statistic on constitutional grounds at trial. (Evid. Code, §§ 353, 354; *People v. Mattson* (1990) 50 Cal.3d 826, 853–854.)

In any event, as a general matter the "'[a]pplication of the ordinary rules of evidence . . . does not impermissibly infringe on a defendant's right to present a defense.' [Citations.]" (*People v. Fudge* (1994) 7 Cal.4th 1075, 1102–1103.) Therefore, any error is one of state law and subject to review under the standard set forth in *People v. Watson* (1956) 46 Cal.2d 818, 836.

E. Harmless Error

Applying the *Watson* standard, it is not reasonably probable that appellant would have realized a more favorable result had the database match probability statistic been admitted into evidence.

A *Watson* harmless error analysis here must presume that the jury would have understood the true meaning and inherent limitations of the "1

in 3" database probability statistic had it been admitted, because appellant cannot claim prejudice based on a presumption that the jurors would have misunderstood the statistic or viewed it as a quantification of guilt.

That being the case, the only additional evidence the jurors would have had is that appellant was identified in an offender DNA database—hardly an exculpatory fact. The jury would have known that, as a matter of pure statistics based on general population genetics, searching for a profile with a 1 in 1.1 million rarity in a 338,000-person database has a 1 in 3 chance of coincidently matching. But the jury also would have learned that (1) the actual profile searched in this case was an eight-locus profile, not a six-locus profile, with a correspondingly increased rarity statistic; (2) the 1 in 3 figure fails to take into account that offender databases are not random collections of profiles, but are designed instead to maximize the chance of containing the perpetrator; and (3) the 338,000 multiplier is far removed from the much smaller multiplier that would have to be used to calculate the probability of a plausible suspect being coincidently hit, when age, alibis, gender, race, and duplicate profiles are accounted for. Further, the prosecution surely would have asked Dr. Chakraborty to rebut Dr. Mueller's testimony with his own views on the database match probability statistic, which, as discussed above, are that "rarity computations based on occurrences in the database is [*sic*] intrinsically flawed." (6 CT 1312.)

In addition, the jury received ample proof of appellant's guilt, even when considered in conjunction with the database match probability statistic. Appellant possessed the perpetrator's DNA profile, which occurs randomly in fewer than one in a million Caucasians, and matched the physical description of the perpetrator. He was living in or near San Francisco when Diana was killed, and had ties to the UCSF hospital where she worked. There is no reasonable probability that the database match

probability, properly understood, would have mitigated that collective evidence to such a degree that appellant would have been acquitted.

II. LIMITED CENSUS DATA WAS PROPERLY NOTICED AND THE PROSECUTOR DID NOT COMMIT MISCONDUCT BY REFERENCING IT IN CLOSING ARGUMENT

Appellant claims that the trial court abused its discretion by judicially noticing three 1970 population statistics: the population of the United States, the population of California, and the Caucasian population of California. (AOB 53.) According to appellant, the California statistics were irrelevant and inadmissible pursuant to Evidence Code section 352 because they were unrelated to the population genetics data underlying the random match probability estimate provided to the jury. (AOB 54-55.) Appellant's claim lacks merit.

A. Facts

Before closing argument, the prosecution asked the trial court to judicially notice, pursuant to Evidence Code section 452, 1970 population and ethnicity statistics based on United States Census data. (21 RT 3198.) The prosecution argued that census data concerning the United States and California populations at the time give crucial real-world context to the DNA profile rarity statistics at issue: "The question of rarity . . . cannot fully be answered or explored unless they [the jurors] have some general idea of how large a population we're talking about. That is to say, how rare is it relative to what." (21 RT 3212.)

Defense counsel objected on relevance grounds, arguing that the DNA statistics referenced during trial were generated according to allele frequencies in the national population during the 1990's or 2000's, and further that the perpetrator "could have come from anywhere." (21 RT 3198-3199, 3200, 3201, 3203, 3254.) The trial court agreed to take judicial notice of the state and national populations in 1970, as well as the number

of Caucasians in California at the time, and did so before closing argument. (21 RT 3256-3257, 3338.) The trial court opined that the figures would be relevant as a means of understanding the DNA population statistics and avoiding "prejudicial assumptions" by the jury. (21 RT 3205, 3257.)

B. Standard of Review and Applicable Law

An abuse of discretion standard applies to the review of any trial court ruling on the admissibility of evidence. (*People v. Waidla* (2000) 22 Cal.4th 690, 725.) Courts may take judicial notice of census data pursuant to subdivisions (c) and (h) of Evidence Code section 452. (*People v. Howard* (1990) 1 Cal.4th 1132, 1160, fn. 6; *People v. Harris* (1984) 36 Cal.3d 36, 47, fn. 3.)

C. Appellant Forfeited His Appellate Claim

As a threshold matter, appellant forfeited his claim that the census data were inadmissible pursuant to Evidence Code section 352 because his trial objection to the evidence was on relevance grounds alone. (21 RT 3198, 3199, 3200, 3254; *People v. Panah* (2005) 35 Cal.4th 395, 492.) As the trial court noted, "[T]hey're arguing relevance, not whether I can take judicial notice." (21 RT 3255.) Nor did appellant object at trial to the receipt of the census information on constitutional grounds, forfeiting that appellate claim as well. (*People v. Riggs* (2008) 44 Cal.4th 248, 292.)

D. The Trial Court Did Not Abuse Its Discretion

Even if section 352 is considered, the trial court acted well within its discretion to admit the population data because they gave a highly probative context for more abstract DNA statistics, were easily comprehended, and consumed very little time. And there is nothing inflammatory about a number, mitigating any argument that the evidence was unduly prejudicial under section 352. The DNA statistics themselves were premised on populations, and the jury had already heard multiple

witnesses cite actual population figures as a means for understanding the statistics. The jury would have been thinking along those lines even without introduction of the census data.

A random match probability statistic is "the frequency of the profile in the most relevant population or populations." (National Research Council, *The Evaluation of Forensic DNA Evidence* (1996), p. 127; see also *People v. Wilson*, *supra*, 38 Cal.4th at p. 1245; 16 RT 2164-2165.) The size of those "relevant populations" is therefore relevant. Here, given that the perpetrator was Caucasian, the relevant population was Caucasians in general. Giving the census data on a state level made the probability statistics more comprehensible still. The jurors, who were Californians, had a rough understanding of the size of the population, and providing the state data helped conceptualize the large numbers involved. Knowing how many California residents likely possessed the perpetrator's DNA profile in 1970 is not the same as evidence that one of them actually was the perpetrator. The knowledge merely provided relevant, helpful, real-world context for the random match probability. And the non-racial national and state population data provided a firm backdrop for the California Caucasian data by quantifying California Caucasians as a subset of statewide and national populations.

Trial and appellate courts reference population data in written opinions as a means of giving context to DNA profile rarity evidence. (See, e.g., *People v. Nelson*, *supra*, 43 Cal.4th at p. 1247 ["Because the world's total population is only about seven billion (seven followed by nine zeros), this evidence is tantamount to saying that defendant left the evidence at the crime scene"]; *United States v. Davis* (D.Md. 2009) 602 F.Supp.2d 658, 683 ["the random match probability is calculated as at least one hundred times the size of the entire population of the United States"].)

How rare anything is will depend upon the size of the pool of possibilities, and population data provides a foundation for that assessment.

In fact, the defense at trial elicited evidence from two witnesses—prosecution witness Cheng via cross-examination, and defense witness Mueller—regarding the total United States population as a means of explaining what the "1 in 1.1. million" random match probability figure actually meant. (16 RT 2243; 19 RT 2930.) Thus it was appellant, not the prosecution, who introduced the jury to the concept of extrapolating from random match probability statistics in view of population data.

Contrary to the defense arguments at trial, there is no evidence in the record that the population frequency statistics underlying the rarity of the perpetrator's DNA profile in the Caucasian population did not encompass California Caucasians, or that Caucasians had different genetic characteristics in 1972 than when the population sampling occurred. The trial court had no factual basis to accept the defense hypothesis, for example, that the alleles in the perpetrator's profile were more common among Caucasians living in California in 1972 than they were in the general United States Caucasian population at the time the genetic data was collected and analyzed. As the trial court observed, "I wouldn't think given what we know about evolution that there would be a big change between what the allele distribution was in 1972, as opposed to now." (21 RT 3203.) There was nothing patently unreasonable about the trial court's reasoning, and consequently no abuse of discretion in admitting the evidence.

E. The Prosecution Did Not Commit Misconduct By Referencing the Population Data in Closing Argument

The prosecutor incorporated some of the judicially noticed census data into his closing argument. He noted that of the nearly 18 million Caucasians in California in 1970, eliminating the half representing females

would leave a pool of approximately nine million Caucasian males from which "eight or nine" would be expected to possess the DNA profile at issue by chance alone given its 1 in 1.1 million frequency. (21 RT 3363.) Appellant maintains that this rough calculation constituted misconduct, represented a logical fallacy, and violated his state and federal rights to a fair trial. (AOB 56-59.) Appellant is incorrect on all counts.

To violate the federal constitution, a prosecutor's conduct must be "so egregious that it infects the trial with such unfairness as to make the conviction a denial of due process." (*People v. Harris* (1989) 47 Cal.3d 1047, 1084.) Under state law, prosecutorial misconduct occurs only if the prosecutor's actions involve "the use of deceptive or reprehensible methods to attempt to persuade either the court or the jury." (*People v. Strickland* (1974) 11 Cal.3d 946, 955; see also *People v. Ledesma* (2006) 39 Cal.4th 641, 726.) Upon an allegation of misconduct, a reviewing court will review prosecutorial comments to determine whether there is a reasonable likelihood the jury misconstrued or misapplied them in violation of the United States or California constitutions. (*People v. Clair* (1992) 2 Cal.4th 629, 662-663.)

The prosecutor here did not commit misconduct under either state or federal law. It was entirely reasonable to discuss the rarity of the DNA profile by pointing out that in 1970, only eight or nine males living in California probably would have possessed it. That conclusion is a natural and logical inference from the California Caucasian population data previously received into evidence by the trial court. "A prosecutor is given wide latitude to vigorously argue his or her case and to make fair comment upon the evidence, including reasonable inferences or deductions that may be drawn from the evidence." (*People v. Ledesma*, *supra*, 39 Cal.4th at p. 726.) A prosecutor may also draw on facts not presented as evidence if they are matters of common knowledge or common experience. (*People v.*

Hill (1998) 17 Cal.4th 800, 819.) It is a matter of common knowledge that any major human population consists of roughly half males and half females, and the prosecutor's act of dividing 18 million in half is hardly a "spurious statistical theory" (AOB 58) as appellant suggests. The jury was not likely to misconstrue or be misled by this simple arithmetic.

In addition, the prosecutor's argument merely highlighted the rarity of the DNA profile in a helpful demographic and geographic context: the population of Caucasian males in California in 1970. The prosecutor did not, as appellant claims, analogize the probability of the DNA profile appearing in California's 1970 Caucasian population to the probability of guilt, otherwise known as the prosecutor's fallacy. (See, e.g., McQuiston-Surrett & Saks, *Communicating Opinion Evidence in the Forensic Identification Sciences: Accuracy and Impact* (2008) 59 Hastings L.J. 1159, 1178.) Accordingly, the argument did not constitute misconduct under either state or federal law.

Finally, any error in the introduction or use of the census data was harmless as a matter of state law (*People v. Watson*, *supra*, 46 Cal.2d at p. 836 [whether there was a reasonable probability of a more favorable result had the error not occurred]) and federal law (*Chapman v. California* (1967) 386 U.S. 18, 24 [whether the error was harmless beyond a reasonable doubt]). The population data did not constitute additional evidence of guilt. It simply provided a context for consideration of rarity statistics which themselves are premised upon occurrence in populations. In fact, through examination of two witnesses appellant had already introduced population data as a means of understanding rarity statistics. The state of the evidence would have been no less inculpatory without the census data.

III. THE TRIAL COURT PROPERLY EXCLUDED EVIDENCE OF PARTIALLY MATCHING DNA PROFILES IN OUT-OF-STATE DATABASES

Appellant takes issue with two related trial court rulings precluding testimony about the observation of partially matching but different DNA profiles in out-of-state databases, unrelated to this case. (AOB 59-72.) His arguments lack merit.

In a motion in limine and supplemental briefing, appellant asked the trial court to allow into evidence information concerning offender DNA profiles—unrelated to any crime—that have some alleles in common and that were observed by Arizona authorities in the Arizona offender database in 2005. (3 CT 668-669, 675-678, 706; 7 CT 1478-1482.) The prosecution opposed the defense motion on relevance and Evidence Code section 352 grounds. (5 CT 1092-1096.) Following argument by counsel (9 RT 215A to 235-A; 10 RT 261A to 262A; 11 RT 249-252, 276-277), the trial court ruled that the Arizona information was inadmissible to attack the prosecution's random match probability statistics because it would "unnecessarily take up time on essentially an irrelevant and misleading issue concerning the rarity of the evidentiary sample in this case as shown by the RMP statistics." (11 RT 278, 280.)

Subsequently, the defense sought to introduce unpublished research involving several FBI databases conducted by Dr. Mueller in anticipation of trial. (7 CT 1558; 19 RT 2801, 2844.) He testified outside the jury's presence about his qualifications and the potential scope of his trial testimony. (19 RT 2806-2851.) The prosecution again objected, arguing that Mueller's study "is the Arizona data just sort of cloaked in another database, but still presents the same 352 issues. So I'm objecting to Dr. Mueller's testimony regarding any pairwise comparison under the same rationale that this Court already excluded the Arizona database." (19 RT

2799.) The trial court heard argument from counsel on the issue (19 RT 2798-2799, 2804), then sustained the prosecution's admissibility objection to Dr. Mueller's pairwise comparison of FBI databases. (19 RT 2799, 2852.)

In neither instance did the trial court abuse its discretion.

A. Standard of Review and Applicable Law

As noted above, evidentiary rulings are reviewed for abuse of discretion. (*People v. Clair*, *supra*, 2 Cal.4th at pp. 655, 671.) "Where expert opinion evidence is offered, much must be left to the discretion of the trial court." (*People v. Cole* (1956) 47 Cal.2d 99, 105; see also *People v. Nicolaus* (1991) 54 Cal.3d 551, 582.) Trial courts possess "wide discretion to exclude expert testimony . . . that is unreliable." (*People v. McWhorter* (2009) 47 Cal.4th 318, 362.) The *McWhorter* court observed further that "unduly speculative" expert testimony may render it unreliable. (*Ibid*.) In addition, trial courts have the discretion to "exclude expert testimony . . . that is . . . irrelevant, or whose potential for prejudice outweighs its proper probative value." (*People v. Carpenter* (1999) 21 Cal.4th 1016, 1061.)

Recently the California Supreme Court clarified that to be admissible, defense evidence intended to undermine a scientific conclusion advanced by the prosecution must be, at a minimum, "competent evidence." (*People v. McNeal* (2009) 46 Cal.4th 1183, 1202.) *McNeal* involved a DUI prosecution in which the defense intended to present scientific evidence that the blood-alcohol "partition ratio" relied upon by prosecution experts was erroneous. The evidence would be admissible, but only if it "satisf[ies] standards of competence and all other applicable evidentiary requirements." (*Ibid*.; see also *ibid*. [evidence admissible if a defendant "offers *competent evidence* showing that [the prosecution's formula] may have yielded an inaccurate representation of his blood-alcohol level" (italics added)].)

B. The Trial Court Did Not Abuse Its Discretion by Excluding Irrelevant and Confusing Information

The trial court did not abuse its discretion in excluding defense evidence about partially matching DNA profiles in out-of-state databases. The relevant question for the jury was how rare the perpetrator's profile was (*People v. Nelson*, *supra*, 43 Cal.4th at pp. 1266-1267)—just as in a lottery context, where the relevant question for the player is how rare the one *winning* combination of numbers is. The fact that pairs of distinguishable DNA profiles in out-of-state databases (made up of Arizona offenders and volunteers for FBI studies) happen to contain some of the same alleles is irrelevant—just as the fact that many pairs of *losing* tickets sold in a state lottery may happen to share several, or even all, of their numbers is uninteresting to the player and has no bearing on the rarity of the *winning* combination.

As a context for a discussion of the Arizona and the Mueller/FBI information, respondent first describes the DNA rarity statistics evidence introduced by the prosecution. This discussion is appropriate in light of appellant's unsupported assertions that the "matching pair studies . . . demonstrate that the probability of obtaining a false match was much higher than the random match probability statistic would suggest" and that the studies were intended to "cast doubt on the prosecution's random match probability statistics." (AOB 59, 60.)

1. Prosecution's DNA statistics

Ms. Bonnie Cheng provided random match probability statistics to estimate the rarity of the DNA profile at issue in this case. (16 RT 2165.) The random match probability statistic is the DNA statistic most commonly generated by laboratories. (17 RT 2419.) The statistic applies the "product rule" to genetic frequencies used by the San Francisco Police Department laboratory that are taken from peer-reviewed studies published in scientific

literature, including research conducted by the FBI. (16 RT 2165, 2166, 2247-2248, 2251, 2268; 17 RT 2442-2243.) Ms. Cheng explained that a random match probability estimate expresses the rarity of a DNA profile in a general population, i.e., how often that particular profile is expected to occur at random. (16 RT 2167, 2242-2243; see also *People v. Nelson*, *supra*, 43 Cal.4th at pp. 1258-1259.) In fact, the statistical method used by the laboratory included a "theta" adjustment to ensure that the outcome is conservative. (16 RT 2267-2268; 17 RT 2350.) Ms. Cheng confirmed that the DNA profile developed for the oral sperm sample in this case is not a "unique" profile. (16 RT 2242.)

This statistical methodology, based on the "product rule," was endorsed by the National Research Council in its 1996 publication, *The Evaluation of Forensic DNA Evidence* (NRC II). (See, e.g., *People v. Reeves*, *supra*, 91 Cal.App.4th at p. 41 ["The 1996 NRC Report, which was the subject of much testimony by all experts in this case, unequivocally endorses the product rule for PCR statistical calculations."].) NRC II has been referred to as "a DNA analyst's Bible" (*People v. Johnson*, *supra*, 139 Cal.App.4th at p. 1145), and has long been recognized by California courts as an "authoritative" scientific resource (see, e.g., *People v. Wilson*, *supra*, 38 Cal.4th at p. 1243, fn. 1).

California courts have widely endorsed as valid and admissible the mathematical methodology used by the San Francisco Police Department—and DNA laboratories nationwide—to calculate this "random match probability" statistic. (See, e.g., *People v. Nelson*, *supra*, 43 Cal.4th at p. 1258 ["the product rule reliably shows what it purports to show—the rarity of the genetic profile in the population group"]; *People v. Soto*, *supra*, 21 Cal.4th at pp. 524-525, 540; *People v. Reeves*, *supra*, 91 Cal.App.4th at p. 31.)

2. Proffered defense evidence

The unpublished Arizona data at issue were not developed in the course of a criminal investigation, nor were they compiled as part of a formal research project for purposes of publication. Rather, the records were obtained by the San Francisco Public Defender's Office in the course of litigating *People v. John Davis* (San Francisco Superior Court No. SCN 190226). (4 CT 719; 5 CT 1123, 1127; 6 CT 1352-1447.) In fact, the Arizona court that ordered release of the records limited their use to the *Davis* case.[8] (5 CT 1128.) To generate the subpoenaed data, the Arizona Department of Public Safety searched every one of its approximately 65,000 CODIS[9] offender DNA profiles against every other offender profile, with no crime scene profile reference point. (6 RT 1229.) This search involved over two billion profile comparisons.[10] (6 RT 1229.) The 2005 Arizona information, which expanded upon 2001 and 2004 inquiries in Arizona (4 CT 714-717, 721), purportedly resulted in the observation of 122 DNA profile pairs that partially matched at 9 out of 13 loci, 20 pairs that matched at 10 out of 13 loci, one set that matched at 11 out of 13 loci, and one set that matched at 12 out of 13 loci. (3 CT 669, 675; 5 CT 1093.)[11]

Similarly, Dr. Mueller conducted a pairwise comparison of several FBI databases containing 1,053 profiles, entailing a search of over 560,000 pairings. (19 RT 2845-2846.)

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[8] The apparent violation of this court order is not addressed in the trial record.

[9] Combined DNA Index System. (See *People v. McCray* (2006) 144 Cal.App.4th 258, 265.)

[10] This kind of search is known as a "pairwise comparison." Every profile is "paired" up with every other profile, thus comparing every possible combination.

[11] The 2005 Arizona report does not, however, appear in the record.

The defense did not argue at trial that either the Arizona data or the FBI data undermined or impeached the validity of current and accepted statistical methods. In fact, the trial court was presented with a significant body of scientific research and opinion indicating that accepted statistical methods actually predict the presence of partially matching DNA profiles in large databases, and do so to an even greater degree when the presence of relatives in a database is considered.

As a general matter, the Arizona results are merely an illustration of a well-known but seemingly paradoxical mathematical concept known as the "birthday problem." The birthday problem asks, "What is the minimum number of people in a room for the odds to be better than 50% that at least two will share the same birthday, no matter what it is?" (6 CT 1229.) This question assumes that the rarity of any particular birthday is 1 in 365 (i.e., its random match probability). The correct answer, although belying common sense, is a mere 23 people. (6 CT 1229.) In other words, pairs of relatively rare events are *expected* in relatively small databases, as long as one is not looking for a specific target event. The solution is based upon the fact that with only 23 people, 253 separate pairwise comparisons can be performed, making it likely that some birthdays will occur twice. (6 CT 1229.) A key point is that the question does not ask how many people would have to be in a room to expect to find a *particular* birthday represented (e.g., January 1). The rarity of any given, predetermined, event (e.g., a January 1 birthday, or a target DNA profile in the DNA database context) remains unchanged.[12]

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[12] A useful discussion of the birthday problem and the statistics involved in the "Arizona data" appears at <http://dna-view.com/ArizonaMatch.htm> [as of Jan 19, 2010] (Brenner, *Arizona DNA Database Matches* (2007).)

Based on the concept underlying the birthday problem, researchers have concluded that "instances of matching and partially matching profiles are not unexpected in offender databases" when the rarity of DNA profiles according to accepted methodology is considered. (6 CT 1235 [Weir, *The Rarity of DNA Profiles* (2007) 1:2 The Annals of Applied Statistics 358] see also 6 CT 1252 [Weir, *Matching and Partially Matching DNA Profiles* (2004) 49:5 J. Forensic Science 1009, 1013 ["As offender databases grow . . . high degrees of matching are to be expected"]].) Specifically, "[t]he finding of DNA profile matching in an Arizonan database of 65,000 profiles . . . becomes less surprising when it is recognized that there are over two billion possible pairs of profiles in that database." (6 CT 1229.)

When the presence of relatives is factored in, the probability of pairs of matching or partially matching profiles in an offender database increases. (6 CT 1236; see also Bieber et al., *Finding Criminals Through DNA of their Relatives* (2006) 312 Science 1315 <http://www.bioforensics.com/conference09/Workshop/Bieber_Science.pdf> [as of Jan. 19, 2010].) As Dr. Weir and other experts point out, offender databases are expected to contain profiles from relatives. (6 CT 1236; Bieber et al., *supra*, 312 Science at p. 1316.)

In October 2006, a group of prominent researchers published a paper in which they considered a question underlying appellant's argument, namely, whether "pairwise profile comparisons [in a CODIS database] can generate data to empirically verify or invalidate current statistical procedures." (5 CT 1103 [Budowle et al., *Clarification of Statistical Issues Related to the Operation of CODIS* (Promega Co. 2006) Proceedings of the 17th International Symposium on Human Identification].) The authors concluded that, "[w]hile offender databases are excellent tools for providing investigative leads . . . they are extremely poor for inferences regarding the assumptions of current forensic statistical practices." (5 CT

1108.) Any attempt to use a law enforcement database to draw conclusions about population genetics, as appellant proposed at trial, would be

> misguided because the nature and design of CODIS make [an offender database] *an inappropriate and meaningless source* of DNA data for assessing the rarity of any specific DNA profile. No valid analyses using such a repository can be carried out regarding the reliability of current statistical practices because there are duplicate profiles and profiles from relatives (of varied and unknown kinship category) contained within the database, and the population is heterogeneous [i.e., not sorted into population groups]. . . . Therefore, *any results obtained from studies assessing the number of observed and expected genotypes at a number of loci from the offender database would be virtually irrelevant and would be misleading for either supporting of refuting current forensic DNA statistical practices*.

(5 CT 1103-1104, italics added.) Among the authors of this paper was Dr. Ranajit Chakraborty who, as discussed above, is "a preeminent expert in statistics and human genetics, with over 20 years of study involving human DNA and genetics." (*State v. Copeland*, *supra*, 922 P.2d at p. 1318).

The Budowle/Chakraborty paper also noted that conducting a pairwise comparison of DNA profiles in a law enforcement database is *expected* to produce pairs of profiles that partially match each other at nine or more loci: "When conducting pairwise DNA profile comparisons using offender DNA profiles . . . it is important to recognize that observing a high number of profiles matching at, for example, 9 or more loci is predicted, is directly related to the basic principles used to generate a random match probability estimate, and is grounded in well-established probability theory . . . ." (5 CT 1107.) In a declaration filed in this case, Dr. Chakraborty similarly reviewed several published studies of partially matching DNA profiles in databases, and concluded that in each "the observed distribution of partial matches are in accordance with the predictions from the assumptions with which RMP is currently calculated." (6 CT 1310.)

Dr. Chakraborty subsequently co-authored a second publication that addressed the implications of the Arizona data. (Budowle et al., *Partial Matches in Heterogeneous Offender Databases Do Not Call Into Question the Validity of Random Match Probability Calculations* (2009) 123 Internat. J. of Legal Medicine 59 http://www.springerlink.com/content/n74588887t702858/fulltext.pdf [as of Jan. 19, 2010].) The authors concluded that "the number of partial matches in pairwise comparisons of DNA profiles in the Arizona offender database, even when they are looked at without the inherent complicacies of the databases, does not, in general, provide any basis for questioning the legitimacy of computations of RMP values of any specific target profile based on the modified product rule that are currently followed in the DNA forensic community." (*Id*. at p. 62.)

Other published, peer-reviewed scientific literature is in accord. For example, an article published in 2007 by researchers at the University of Auckland described partial DNA profile match patterns in large databases, and concluded that "existing models give a very good fit to empirical observations." (Curran et al., *Empirical Testing of Estimated DNA Frequencies* (2007) 2007:1 Forensic Science Internat.: Genetics 267, 270 <http://www.sciencedirect.com/science?_ob=ArticleListURL&_method=list&_ArticleListID=1172576630&_sort=r&view=c&_acct=C000052004&_version=1&_urlVersion=0&_userid=1206791&md5=96734b79497e56d874f6580f724c0008> [as of Jan. 19, 2010].) The authors also noted that the accepted statistical practices continue to be viewed as "conservative." (*Ibid*.)

Even defense expert Mueller testified that when he conducted his own study of partially matching profiles observed in a pairwise comparison of several FBI DNA databases, entailing over 560,000 comparisons, the results did not call into question the accuracy of random match probability statistics:

Q: So you have compared a data set of 1,000 people to each other producing over 560,000 comparisons, correct?

A: Yes.

Q: And your results in this case do not call into question the assumptions or anything about the product rule, do they?

A. And I'm not saying that, no.

Q: You're just saying that it helps a jury to put this number into context?

A. Correct.

Q: But it doesn't call into question the product rule itself?

A: Not in and of itself, no.

Q: Doesn't call into question random match probability as generated in this particular case?

A: That's right.

(19 RT 2846.) Any suggestion by appellant that the occurrence of partially matching DNA profiles in databases implicates the reliability of the prosecution's rarity statistics is therefore belied by the record.

Finally, the trial court was presented with evidence that two other trial courts had denied similar defense motions for introduction of the Arizona material. First, Ms. Barlow confirmed that in a case called *People v. Sweigart*, the trial court was presented with the Arizona information and ruled it inadmissible:

> [A]dmission of evidence regarding Kathryn Troyer's work with respect to nine loci matches in the DPS data base done in 2001 is not relevant or . . . any relevance is substantially outweighed by confusion of the issues. As noted above, the CODIS data base is not a population data base used or designed to be used to make predictions regarding the prevalence of any genetic profile in the population.

(5 CT 1142, 1143.) Second, in *People v. Davis* the trial court excluded the Arizona report. (5 CT 1149-1150.) The *Davis* trial court opined that the Arizona information was "unreliable on its face," and pointed out that the Arizona report included the following notation: "'This report is not generated or used by the Arizona Department of Public Safety Crime Laboratory for any statistical analysis.'" (5 CT 1149.) The *Davis* trial court excluded evidence of the Arizona report on relevance and Evidence Code section 352 grounds. (5 CT 1150.)

3. The defense theory of admissibility

The defense at trial conceded that it would not use the results of these two "pairwise comparison" searches to challenge the actual validity of current and accepted statistical methods (11 RT 250), and acknowledged that scientific literature supports use of the random match probability statistic (9 RT 217-A, 232-A, 233-A).[13]

Instead, the defense apparently intended to use instances of partial matches in databases to illustrate the unremarkable fact that if enough profile pairs are reviewed, some will share some alleles: "What this information tells the jury is that even if the random match probability is correct, you expect to find people who match at six loci and it's common." (19 RT 2801.) Appellant's counsel did not clarify that her statement referred to *any* six loci, not six in particular. She tried to explain:

> Actually, the statistical match of the data and the factual presentation of simply matches are sort of separate, not necessarily—I mean, there's a common sense fact that if the they say this number is one in a million, what does that really mean. What do we expect? How many people do we expect to

[13] Although the defense suggested initially that the Arizona data would be used to challenge the random match probability calculation as a valid statistical method (3 CT 669, 678, 706), that theory appears to have been abandoned as the trial progressed.

> match? And I think the fact of those matches, regardless of any statistical analysis, is the key—really is the key here.

(9 RT 226-A.) Elsewhere, defense counsel provided a similar rationale for presenting the Arizona data: "If you are going to find two people that match at nine loci in the database of 10,000 [referring to an earlier pairwise comparison in Arizona], that says a lot about whether or not somebody else out there shares Mr. Puckett's profile, and it flies in the face of the common sense understanding of what that random match probability means." (11 RT 250.) Were the issue framed instead in terms of the birthday problem, defense counsel's argument would seem to be that observing one or more pairs of birthdays when comparing everyone in a relatively small room "says a lot about whether or not somebody else out there shares," for example, a March 5 target birthday. This, of course, is false.

Dr. Mueller, in testimony outside the jury's presence, opined similarly that the occurrence of partially matching profiles in DNA databases "helps people get the feeling for the fact that, one, these things aren't unique identifiers, that [partial] matches like this can happen. Again, it doesn't happen all the time, simply that it's possible." (19 RT 2829.) Again in birthday problem parlance, Mueller's rationale is that people in relatively small rooms can share birthdays. Dr. Mueller acknowledged that neither of the DNA analysts who testified for the prosecution in this case claimed that the DNA profile at issue is unique. (19 RT 2845.)

4. The trial court acted within its discretion

There was no relevance or probative value to evidence that unpublished surveys of out-of-state DNA databases, including an offender database that likely contains significant numbers of relatives, indicate that when every possible pairing of profiles is considered, pairs are observed that share alleles at some but not all loci. To the contrary, this information would have confused the jury and unnecessarily consumed time. The DNA

profile at issue in this case is as rare as its random match probability statistic indicates. Neither the Arizona information nor Mueller's survey of the FBI databases demonstrated otherwise. The proffered defense evidence would have presented the jury with a DNA database version of the birthday problem—a statistical curiosity that, on its surface, belies common sense but in reality shows only that rare events will be observed if enough possibilities are considered. Below the surface, a pairwise comparison of an offender database also involves the certain influence of relatives being represented in the database, whose increased probability of sharing alleles makes their pairs less rare events within the "population" of the database.

It was neither relevant nor probative whether pairs of offenders in Arizona's or any other DNA database, including brothers and parent-child pairs, having no connection to the assault and murder of Ms. Sylvester, shared alleles at some number of loci. The relevant evidence was that appellant matched the perpetrator's DNA profile, and how rare that profile is. While it may be "common," in the words of defense counsel, to find profiles in a DNA database that share six loci worth of alleles, it is by no means "common" to find the *particular* six-locus profile matching the perpetrator in this case, or any other target profile, whose rarity in populations remains unchanged.

Dr. Mueller's opinion that his survey would be useful to the jury was irrelevant. It is the trial court that must weigh these matters. Here, the trial court undertook that task and acted well within its discretion in excluding pairwise comparison evidence that, under Evidence Code section 352, was irrelevant and lacked any probative value. Further, the evidence would have invited fallacious and confused reasoning on the part of the jury, just as finding a pair of matching birthdays in a room of 23 people invites the fallacy that those birthdays are more common than they actually are.

C. Harmless Error

As a general matter, the "'[a]pplication of the ordinary rules of evidence . . . does not impermissibly infringe on a defendant's right to present a defense.' [Citations.]" (*People v. Fudge*, *supra*, 7 Cal.4th at pp. 1102–1103.) Because the trial court merely rejected some evidence concerning a defense, and did not preclude appellant from presenting a defense, any error is one of state law and is properly reviewed under *People v. Watson, supra*, 46 Cal.2d 818, 836.

In light of the DNA rarity statistics provided to the jury, the validity of which are not implicated by pairwise comparison data, it is not reasonably probable that appellant would have achieved a more favorable result had he been permitted to introduce evidence about pairwise comparisons. If received into evidence, the observation of partially-matching profiles in the Arizona DNA database, following comparison of over two billion possible combinations, would not have implicated the rarity of the perpetrator's DNA profile. It would not have permitted the defense to argue that a coincidental match was more likely than the statistics indicated. Instead, the jury would be left with a set of inconsequential observations in out-of-state databases that did nothing to weaken the balance of evidence pointing toward appellant's guilt. Any error was harmless.

IV. THE TRIAL COURT DID NOT ABUSE ITS DISCRETION IN EXCLUDING EVIDENCE OF THIRD PARTY CULPABILITY

Appellant claims that the trial court improperly excluded proffered defense evidence that a man named Robert Baker was the true perpetrator. (AOB 73-92.) His argument lacks merit.

A. Facts

In a motion in limine, appellant sought to present evidence that a person named Robert Baker was responsible for the crimes against Diana Sylvester. (3 CT 584-601.)

In September 1972, a male stranger identified as Robert Baker showed inappropriate and suspicious, although non-sexual, interest in a family and their live-in babysitter. (3 CT 656; 6 CT 1292, 1294.) That family resided on the same block as Diana Sylvester. (8 RT 132.) There is no evidence that Baker was prosecuted for those events.

On November 8, 1972, Baker escaped from Mt. Zion Hospital, where he had been a mental patient. (3 CT 664.) On November 28, 1972, a man entered an apartment at 178 Locksley in San Francisco through a fire escape door. He demanded money from the 37-year-old female resident, forced her to orally copulate him, and raped her. (3 CT 662.) The assailant left the victim with her hands bound behind her back and two towels wrapped around her neck. (3 CT 662.) The perpetrator was described as "WMA, Latin type, early twenties, 5'10" tall, slender build, about 140 lbs., black hair (medium length), long sideburns, medium length goatee . . . ." (3 CT 663.) The rape victim identified Robert Baker as her assailant based on police photographs. (3 CT 656; 6 CT 1288, 1294.) Baker was never arrested for or charged with that crime. (8 RT 137, 138.)

In a police communication dated January 10, 1073, Robert Baker was described as a "WMA, 5'10, 160 . . . paints pictures on street corners . . . . Subject is very dirty and shabby, dark hair and light beard growth on face." (3 CT 639; 6 CT 1291.) Elsewhere Baker was seen on a street corner "drawing pictures." (6 CT 1293.)

One of Ms. Sylvester's coworkers stated that she thought Ms. Sylvester had purchased a candle from a street artist the morning she was killed. The coworker, Ms. Charlene Nolan, described the street artist as "a

WMA, 5'9", 165, beard & mustache, long hair into a pony tail, wire rim glasses . . . ." (3 CT 647.) Appellant's trial counsel suggested that this could have been Baker, who then followed Sylvester home, raped, and killed her. (3 CT 591-592.)

Found among the evidence collected in the Sylvester murder investigation was a parking warning with a spot of type O blood on it. (3 CT 660; 10 CT 37.) Handwritten on the warning was "Robert the Artist" and "VW." (10 CT 2106.) Robert Baker drove a Volkswagon van. (3 CT 641, 655.) There was no information available at trial about where the parking notice was located originally, or its significance to the investigation. (10 CT 2106-2107.) Diana Sylvester had type O blood. (3 CT 621.) There is no evidence of Robert Baker's blood type or DNA profile.

According to defense counsel, the police questioned Robert Baker about Diana Sylvester's murder, and included him in a "live lineup" on January 11, 1973. (6 CT 1290; 8 RT 110, 112.) The trial court presumed that Ms. Helen Nigadoff, the only person to see the perpetrator, was the viewer. (8 RT 110, 111.) According to defense counsel, "[W]e don't know the results of that live lineup." (8 RT 110.) Baker was neither arrested for or charged with Diana Sylvester's murder.

The trial court heard argument from counsel about the third party culpability evidence. (8 RT 107-123, 125-138.)[14] Citing the guidelines set

[14] The prosecutor's argument that the strength of the DNA evidence implicating appellant mitigated any possibility that the Robert Baker evidence would raise a reasonable doubt (8 RT 121) is no longer considered sound reasoning: "To the extent [*People v.*] *Johnson* [(1988)] 200 Cal.App.3d 1553, relied upon the strength of the prosecution's evidence against the defendant to exclude third party culpability evidence, its reasoning is suspect in light of *Holmes v. South Carolina* (2006) 547 U.S. 319 . . . , which found a federal constitutional violation resulting from a rule (continued…)

forth in *People v. Hall* (1986) 41 Cal.3d 826, the trial court took note of a number of facts that distinguished Robert Baker from the description of Ms. Sylvester's killer, as well as facts that cast doubt on whether Diana Sylvester purchased anything from him the morning she was killed. (8 RT 124.) The trial court concluded that "neither motive, nor opportunity or linkage has really been established here," and excluded evidence concerning Robert Baker. (8 RT 124, 134.) The trial court later reiterated its initial ruling excluding the Baker evidence. (18 RT 2673.)

B. Standard of Review and Applicable Law

"Evidence that a third person actually committed a crime for which the defendant has been charged is relevant but, like all evidence, subject to exclusion at the court's discretion under Evidence Code section 352 if its probative value is substantially outweighed by the risk of undue delay, prejudice or confusion." (*People v. Yeoman* (2003) 31 Cal.4th 93, 140.) Absent an abuse of discretion, the trial court's exclusion of third party culpability evidence will not be disturbed on appeal. (*People v. Lewis* (2001) 26 Cal.4th 334, 372.) Judicial discretion "implies absence of arbitrary determination, capricious disposition or whimsical thinking." (*In re Cortez* (1971) 6 Cal.3d 78, 85.)

California's seminal authority on third party culpability evidence, *People v. Hall*, *supra*, 41 Cal.3d 826, held that to be admissible, the evidence must "be capable of raising a reasonable doubt of defendant's guilt." (41 Cal.3d at p. 833.) "[E]vidence of mere motive or opportunity to commit the crime in another person, without more, will not suffice to raise a reasonable doubt about a defendant's guilt: there must be direct or

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(…continued)
of evidence that precluded the defendant from introducing third party culpability evidence when there is strong evidence of the defendant's guilt." (*People v. Page* (2008) 44 Cal.4th 1, 37.)

circumstantial evidence linking the third person to the actual perpetration of the crime." (*Ibid*.) In considering the admissibility of third party culpability evidence, the strength of evidence inculpating the charged defendant may not be a court's sole consideration; rather, the focus should be on whether the proffered evidence sufficiently connects the third party to the crime or whether, for example, "'the evidence is speculative or remote'" and thus subject to exclusion. (*Holmes v. South Carolina*, *supra*, 547 U.S. at pp. 327, 329-331.)

C. The Theory of Robert Baker's Culpability Rested Entirely on Speculation and Conflicted with Other Evidence

Had the Robert Baker evidence been introduced, the jury would have heard only that another sexual predator who did not look like Diana Sylvester's killer was operating in San Francisco near the time she was killed, and that predator may have been Robert Baker. Because Robert Baker was never arrested for or charged with the rape at Locksley Street, it is far from clear that he perpetrated that crime in the first place. There was, therefore, a significant potential for jury confusion regarding the significance of the Locksley rape, a consideration under Evidence Code section 352.

Even if Baker were the Locksley rapist, not only was there no evidence connecting him to the Sylvester murder as well, but there was evidence indicating that the two criminals were different men. Specifically, the Locksley rapist was described as having a "slender build," weighing approximately 140 pounds. Helen Nigadoff, in contrast, described Diana Sylvester's killer as a "heavy set – chubby" (3 CT 609.) And whereas Baker was "very dirty and shabby," Diana Sylvester's killer had a "clean-cut appearance." (3 CT 609.)

Nor was there any other evidence that Baker assaulted and killed Diana Sylvester. Unlike the DNA profile implicating appellant, there was no physical evidence connecting Baker with the crime scene. Assuming the parking notice had come from Baker, the type "O" blood spot could well have been Baker's own blood, or anybody else with type "O," which is possessed by nearly half of the general population. (See *People v. Hill* (1998) 17 Cal.4th 800, 824 [48 percent of the population has type O blood].) There was no indication that the parking notice was found in or around Diana Sylvester's apartment.

The unsupported implication that Ms. Sylvester purchased an item from Baker the morning she was killed was likewise belied by the evidence. The street vendor in question had "long hair into a pony tail [and] wire rim glasses"—both features that would have been readily apparent to Ms. Nigadoff but were absent from her description of the perpetrator. In addition, all evidence indicated that Robert Baker drew pictures to sell. There was no evidence that he peddled candles, one of which Diana Sylvester purportedly bought the morning she was killed.

In sum, the proffered third party culpability evidence either failed to connect Robert Baker to Diana Sylvester's murder, or affirmatively excluded Baker as the perpetrator. What little relevant evidence there was—i.e., that Baker may have committed a rape in San Francisco the month before, and that a parking notice with blood on it was found somewhere—was at best ambiguous. There was no probative value to the Baker evidence, and it would only have bred confusion and consumed time needlessly. The trial court was thus justified in excluding it under section 352.

D. Harmless Error

Even if the trial court erred in excluding the Robert Baker evidence, any state law error would be harmless under the *Watson* "reasonable

probability" test (*People v. Watson*, *supra*, 46 Cal.2d at p. 836), and any federal constitutional error would be harmless under the *Chapman* "beyond a reasonable doubt" test (*Chapman v. California* (1967) 386 U.S. 18, 23-24). Compelling evidence implicated appellant as the perpetrator, such that learning of Robert Baker would not have generated reasonable doubt for the jurors. Most significantly, appellant matched the perpetrator's DNA profile. The profile is expected to occur randomly no more than one time in every 1.1 million Caucasian people. Appellant matched the perpetrator's physical description as well, was in the San Francisco area at the time, and had ties to the UCSF hospital. Appellant had himself committed multiple violent sexual assaults in and around San Francisco in the 1970's, and unlike Baker appellant was actually convicted of those offenses. There is no reasonable possibility of a different result had the jury also heard about a street artist, who did not match the description of Diana Sylvester's killer, who *may* have committed a rape in the area the month before.

V. THE TRIAL COURT PROPERLY ADMITTED EVIDENCE OF SOME OF APPELLANT'S PRIOR SEXUAL ASSAULT CRIMES

Appellant contends that the trial court committed prejudicial error when it admitted evidence that he kidnapped and sexually assaulted Arlene M., Leslie B., and Cynthia S. in and near San Francisco in 1977. (AOB 93-108; see RB Statement of Facts.) Specifically, appellant alleges that the trial court misapplied Evidence Code section 1101, subdivision (b), in finding that the other sex crimes demonstrated a "common plan" (AOB 99-104), and also that the trial court should have excluded the evidence under Evidence Code section 352 (AOB 104-107.) Appellant's arguments lack merit.

A. Facts

In a motion in limine, the defense asked the trial court to exclude evidence of appellant's prior sex offenses as falling outside the scope of

Evidence Code section 1101, subdivision (b), and Evidence Code section 352. (2 CT 346-372; see also 7 RT 58.) Included in the prior crimes referenced by appellant in his motion were a 1957 kidnapping and rape, five acts of sexual battery in 1973, the 1977 kidnapping and sexual assault of Arlene M., the 1977 kidnapping and rape of Leslie B., the 1977 kidnapping and rape of Cynthia S., and a 1977 kidnapping and rape of Kelly F. (2 CT 348-358.) The prosecution asked the trial court to permit evidence, pursuant to section 1101, subdivision (b) or section 1108 of the Evidence Code, that appellant committed the Leslie B., Arlene M., and Cynthia S. crimes. (5 CT 1019-1061.)

The trial court ruled initially that the three 1977 sex crimes would be admissible under Evidence Code section 1108 as propensity evidence. (7 RT 63, 67-68, 69.) In so doing, the trial court considered whether the uncharged offenses were unduly inflammatory, whether such evidence would cause confusion among the jurors, the remoteness of the 1977 acts, the consumption of time presenting the evidence would entail, and the similarities between the 1977 crimes and Diana Sylvester's sexual assault and murder. (7 RT 66-67.)

Subsequently, upon a renewed motion from the defense, the trial court indicated that its ruling on the "1101 issues . . . remains the same," and agreed that the "section 1101 evidence" would be admitted to "show common scheme." (17 RT 2287, 2288; 21 RT 3327, 3360-3361.) The trial court also conducted an analysis under section 352, and concluded that the 1977 offenses would not be inflammatory compared to the murder of Diana Sylvester, and there would be little danger of jury confusion or undue consumption of time. (17 RT 2287-2288.) On the other hand, noted the trial court, the prior acts carry "significant probative value" in light of factual similarities to the present case. (17 RT 2288.)

The trial court never expressly abandoned its earlier section 1108 reasoning, but instructed the jury that it could consider the 1977 evidence "for the limited purposes of deciding whether or not the defendant had a plan or scheme to commit the sex offenses claimed in this case." (21 RT 3360, 3361.) The trial court emphasized to the jury that the 1977 evidence was not to be used to determine whether appellant had a bad character or predisposition to commit sex offenses. (21 RT 3361.)

B. The 1977 Offenses Were Admissible Under Evidence Code Section 1108

An abuse of discretion standard applies to admission of evidence under Evidence Code section 1108. (*People v. Wesson* (2006) 138 Cal.App.4th 959, 969.)

Evidence Code section 1108 permits the introduction of evidence of other sexual offenses to show propensity "[i]n a criminal action in which the defendant is accused of a sexual offense" and where the evidence is admissible under Evidence Code section 352. (Evid. Code, § 1108, subd. (a); see also *People v. Lewis* (2009) 46 Cal.4th 1255, 1286.) Evidence offered under section 1108 is admissible under section 352 unless the probability of substantial and undue prejudice substantially outweighs its probative value in proving a disposition to commit the sexual crime(s) at issue in the case. (*People v. Soto* (1998) 64 Cal.App.4th 966, 984.) The trial court's original ruling, that section 1108 was an appropriate basis for admitting evidence of the three 1977 sex crimes, was correct and did not constitute an abuse of discretion.

In *People v. Story* (2009) 45 Cal.4th 1282, the California Supreme Court held that Evidence Code section 1108 "applies at least when the prosecution accuses the defendant of first degree felony murder with rape (or another crime specified in § 1108, subd. (d)(1)) . . . ." (45 Cal.4th at p.

1294.)[15] The court explained that that "a pleading that contains an open charge of murder adequately notifies the defendant of the possibility of conviction of first degree murder on a felony-murder theory, including rape felony murder." (45 Cal.4th at p. 1291.) Even though the charging document in *Story* contained only a murder allegation, and made no reference to rape or other sex crimes, the court held that the defendant "was accused of a sexual offense as defined by section 1108" because he was prosecuted on a felony-murder theory with rape and burglary as the underlying felonies. (*Ibid*.) Here, appellant was charged with an open murder count and prosecuted on a felony-murder theory with oral copulation as the underlying felony. The prior offenses were therefore admissible under section 1108.

The trial court did not abuse its discretion when it evaluated the 1977 offenses under Evidence Code section 352 and guidelines in *People v. Falsetta* (1999) 21 Cal.4th 903, which set forth applicable criteria. (See also *People v. Balcom* (1994) 7 Cal.4th 414, 426-427 [describing the factors contributing to a similar weighing of proffered 1101 evidence under section 352].) The probative value of the 1977 offenses was high because they displayed a number of factual similarities to the 1972 crimes. (See *Falsetta*, *supra*, 21 Cal.4th at p. 917.) In each of the 1977 crimes, appellant held a sharp object (ice pick or knife) to the victim's throat to compel compliance, in two instances cutting the skin of the face or neck. Diana Sylvester had cuts on her neck consistent with being poked or sliced by a sharp instrument. In 1977, appellant forced each of his victims to orally copulate him. Diana's killer forced her to orally copulate him. In 1977, appellant either made his victims remove their clothing or expressed his

[15] Oral copulation (Pen. Code, § 288a) is enumerated in Evidence Code section 1108, subdivision (d)(1).

desire that they do so. In 1972, Diana Sylvester had been forced to remove her clothes. In 1977, appellant on two occasions referred to his sexual assaults as "making love," just as the perpetrator did in 1972 when confronted by Ms. Nigadoff. The victim in each of the 1977 crimes was a woman in her early 20's, as was Diana Sylvester, and, like Diana, one was a nurse working at a local hospital. Each of the 1977 victims was accosted in or near San Francisco, with one being kidnapped from the same Inner Sunset district where Diana Sylvester was assaulted and killed. Appellant got close to his 1977 victims using false pretenses. Diana's killer likely used a ruse to gain entry, there being no sign of forced entry into her apartment.

In addition, the probative value of the 1977 offenses was enhanced because the source of evidence of those crimes was independent of the evidence presented regarding the 1972 acts. (*People v. Balcom*, *supra*, 7 Cal.4th at p. 427.) The prejudicial impact of the 1977 evidence was mitigated because the jury heard that appellant was convicted of and punished for those offenses (22 RT 3496, 3497). (See *Falsetta*, *supra*, 21 Cal.4th at p. 917.)

Finally, there was no undue consumption of the jury's time by presenting evidence of appellant's 1977 crimes. The prosecution presented one witness only to describe each assault, substantiating the trial court's judgment that there would be little cost in terms of judicial efficiency. (See *Falsetta*, *supra*, 21 Cal.4th at p. 916.)

Therefore, the trial court did not abuse its discretion in admitting evidence of the 1977 crimes under Evidence Code section 1108.[16]

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[16] Because the evidence was admissible under Evidence Code section 1108, the court need not address admissibility under Evidence Code section 1101, although the evidence was, as shown below, properly

(continued…)

Even if the trial court subsequently elected to rely upon Evidence Code section 1101 rather than Evidence Code section 1108 as the basis for admitting the evidence, the outcome from appellant's perspective and the jury's perspective was the same. After all, """[n]o rule of decision is better or more firmly established by authority, nor one resting upon a sounder basis of reason and propriety, than that a ruling or decision, itself correct in law, will not be disturbed on appeal merely because given for a wrong reason. If right upon any theory of the law applicable to the case, it must be sustained regardless of the considerations which may have moved the trial court to its conclusion."""" (*People v. Zapien* (1993) 4 Cal.4th 929, 976.) In fact, by instructing the jury that it could only consider the 1977 evidence as proof of a common plan or design—as opposed to propensity to commit violent sexual acts—the trial court erred in appellant's favor by imposing an unnecessary limitation.

C. The 1977 Offenses Were Admissible Under Evidence Code Section 1101

A trial court's decision to admit evidence under Evidence Code section 1101 is reviewed for an abuse of discretion. (*People v. Rogers* (2006) 39 Cal.4th 826, 862.)

Evidence of an uncharged criminal act is admissible to prove a defendant's common plan, scheme, or design when it is relevant and satisfies Evidence Code section 352's balancing test. (Evid. Code, § 1101, subd. (b); *People v. Lewis*, *supra*, 46 Cal.4th at pp. 1284-1285.) The similarities between the charged and uncharged offenses are a "central"

(…continued)
admitted under that provision. (See *People v. Branch* (2001) 91 Cal.App.4th 274, 280-281 ["Because the court found the testimony admissible under both [Evidence Code] sections [1101 and 1108], we would only find error in its admission if the testimony were inadmissible under both"].)

consideration in determining whether the uncharged crimes "tended to prove . . . a common design . . . ." (*Id*. at p. 1285.) Specifically, "in establishing a common design or plan, evidence of uncharged misconduct must demonstrate 'not merely a similarity in the results, but such a concurrence of common features that the various acts are naturally to be explained as caused by a general plan of which they are the individual manifestations.' [Citation.]" (*People v. Ewoldt* (1994) 7 Cal.4th 380, 402.) In other words, "evidence that the defendant has committed uncharged criminal acts that are similar to the charged offense may be relevant if these acts demonstrate circumstantially that the defendant committed the charged offense pursuant to the same design or plan he or she used in committing the uncharged acts." (*Id*. at p. 403.)

To be admissible, the common scheme "need not be unusual or distinctive," but rather needs only "to support the inference that the defendant employed that plan in committing the charged offense." (*People v. Ewolt*, *supra*, 7 Cal.4th at p. 403.) The fact that the uncharged offenses were committed after the charged offense does not mitigate their relevance as proof of a common scheme or plan. (*People v. Balcom*, *supra*, 7 Cal.4th at p. 425.)

Appellant argues that the 1977 evidence was introduced not as evidence of a common plan or scheme, but rather as evidence identifying appellant as Diana Sylvester's killer. As such, appellant argues, a more stringent standard of probative value would have applied, which the 1977 evidence was unable to meet in terms of similarity to the 1972 crime. (AOB 101-102; see, e.g., *People v. Barnwell* (2007) 41 Cal.4th 1038, 1056 ["To be admissible on the issue of identity, an uncharged crime must be highly similar to the charged offenses, so similar as to serve as a signature or fingerprint"].) What appellant fails to acknowledge, however, is that

even if identity is a disputed issue in a case, other disputed issues may exist also that make evidence of a common plan or design relevant and probative.

In *People v. Carter* (2005) 36 Cal.4th 1114, for example, the defendant was accused and convicted of multiple counts of rape and first degree murder and sentenced to death. (36 Cal.4th at pp. 1127-1128.) At trial, the prosecution introduced evidence of two uncharged murders, over the defendant's objection, under Evidence Code section 1101, subdivision (b). (*Id*. at p. 1147.) The defendant had not conceded the issue of identity. (*Id*. at p. 1150.) The Supreme Court observed that only one of the prior murders was so "highly distinctive" that it was admissible on the issue of the identity of the perpetrator of the charged crimes. (*Id*. at p. 1148.) The other uncharged killing was also properly admitted, however, because while it "did not share the distinctive features of the murders charged in the present case, it clearly was relevant on the issues of intent and a common plan." (*Ibid*.) Thus both uncharged murders were properly admitted as "highly probative as to the identity of the perpetrator of the crimes, *as well that person's murderous and larcenous common plan* . . . ." (*Id*. at p. 1150, italics added.)

In this case, the 1977 evidence was admitted to address not identity, but the disputed issue of whether appellant committed felony murder by killing Diana Sylvester in the course of committing a sex crime such as oral copulation (Pen. Code, § 288a), as set forth in Penal Code section 189. The trial court instructed the jury expressly on this point: "Do not consider this evidence, namely the 1977 evidence, for any other purposes except . . . whether the defendant had a plan or scheme to commit sex offenses." (21 RT 3361.) The commission of the sex crime was a necessary aspect of proving felony murder, and the 1977 offenses were highly probative to the commission of the sexual assault along with the killing. While this

argument, and the 1977 evidence, may assume the identity of appellant as the perpetrator, it was not admitted for the purpose of proving that point.

The reasons set forth above why Evidence Code section 352 did not bar admission of the 1977 crimes evidence under Evidence Code section 1108 apply with equal force to the Evidence Code section 1101 analysis. In short, the 1977 evidence was highly probative of a common sex crime scheme. Appellant would get close to young women in and near San Francisco by way of false pretenses, compel compliance by holding a sharp instrument to their necks or faces, make them undress, and force them to orally copulate him. He would refer to these assaults as "making love." Each of these characteristics was evident in the 1972 acts. That probative value was not outweighed by the time it took the three 1977 victims to testify. Nor was there a danger of undue prejudice or jury confusion, particularly in light of the fact that appellant had been convicted and punished for the 1977 crimes. And because the 1977 crimes did not involve murder, they would not be unduly inflammatory compared to the 1972 crime.

The trial court did not abuse its discretion in admitting the 1977 crimes evidence under the "common scheme" aspect of Evidence Code section 1101, subdivision (b).

D. Harmless Error

Admission of evidence prohibited by Evidence Code sections 352, 1101, or 1108 is reviewed under the harmless error standard of *People v. Watson*, *supra*, 46 Cal.2d 818, 836. (*People v. Malone* (1988) 47 Cal.3d 1, 22; *People v. Mullens* (2004) 119 Cal.App.4th 648, 652, 659.) Any error in admitting the 1977 evidence was harmless because there is no reasonable probability that appellant would have achieved a more favorable result at trial had the evidence been excluded. This case hinged on the identification of appellant as the person who killed Diana Sylvester, and that

identification in turn depended primarily upon DNA and physical appearance evidence, not the 1977 crimes evidence. Further, because the presence of semen on the oral swab evidence provided strong proof that Ms. Sylvester was sexually assaulted before she was killed, there is no reasonable probability that the absence of the 1977 evidence would have altered the jury's finding on that point.

VI. THE JURY PROPERLY HEARD THE EYEWITNESS'S DESCRIPTION OF THE PERPETRATOR

Appellant claims that admission of hearsay statements made by Helen Nigadoff to police immediately following Diana Sylvester's murder violated his Sixth Amendment right to confrontation. (AOB 109-117.) His assertion lacks merit.

A. Facts

In a motion in limine, the prosecution sought to introduce statements made by the sole eyewitness to the crime, Helen Nigadoff, who died before trial. (5 CT 980-987; 18 RT 2704.) The crux of the statements was Ms. Nigadoff's description of the perpetrator. The prosecutor argued that the police report in which that description was transcribed was an official record admissible pursuant to Evidence Code section 1280, and that the witness's statements were spontaneous statements within the meaning of Evidence Code section 1240 in light of Ms. Nigadoff's hysterical demeanor at the time. (3 CT 608; 5 CT 980-984.)

During pretrial discussions, defense counsel objected to the admission of Ms. Nigadoff's statements under Evidence Code sections 352 and 1180, "*Crawford*," and his rights to due process and a fair trial. (7 RT 60-61.) The trial court stated that it was "inclined" to grant the prosecutor's motion "at this point." (7 RT 60.) The trial court made clear, however, that it had not issued a final ruling on the issue and would be deferring a decision until it heard more preliminary facts: "That's what I'm thinking of right now.

Once I've reviewed the police report and—I mean the police—I have to hear more about the police file in this case . . . how things were done in 1972. . . . I don't have all the information in front of me, and all that comes to me during the trial. These are tentative rulings." (7 RT 62.) Earlier, the court had stressed that its *in limine* inclinations were not final: "So, Mr. Maloof, based on this preliminary showing and bearing in mind that these are preliminary hearings, I'll be glad to hear your objections." (7 RT 60.)

In 1972 Officer Jack Forbes of the SFPD was the reporting officer on Diana Sylvester's murder, and one of the first officers to arrive on the scene. (13 RT 1644; 14 RT 1671, 1750.) By the time of trial, Officer Forbes had died. (14 RT 1671.) The prosecutor established Officer's Forbes' police report as an official record pursuant to Evidence Code section 1280. (14 RT 1650-1651, 1694-1995, 1750-1751.) When Officer Forbes was at the murder scene the morning of December 22, 1972, he spoke to eyewitness Helen Nigadoff. (14 RT 1652.) Ms. Nigadoff communicated "in a hysterical manner." (14 RT 1754.) Ms. Nigadoff stood in the same room as Diana Sylvester's body when she spoke to Officer Forbes, and another officer present heard her giving a description of the perpetrator to Officer Forbes. (14 RT 1653, 1676, 1677.)

Retired Inspector Jack Cleary read to the jury the portion of Ms. Nigadoff's statement transcribed in Officer Forbes' report in which she described the perpetrator's appearance. The statements from Officer Forbes' report were read in response to questions from the trial court, not the prosecutor. (14 RT 1695.) The defense did not object or renew any previous objection, and made no motion to strike. (14 RT 1695.) Immediately thereafter, the trial court asked Inspector Cleary to also read notes made by Inspector Ken Manley concerning Ms. Nigadoff's observations. Inspector Manley, an assigned detective on the case, was in a rest home at the time of trial. (13 RT 1632, 1634; 14 RT 1696-1697.)

Again, the defense offered no objection or motion to strike. Instead, defense counsel appeared to embrace the court's line of questioning:

> The Court: All right. Thank you, inspector. We sort of interrupted your cross-examination, Mr. Maloof, but the jury question, of course, took our attention away from your line of questioning.
>
> Mr. Maloof: Actually, that was perfect. Thank you.

(14 RT 1697.) Later, the prosecutor elicited further testimony regarding the contents of Officer's Forbes' police report—including the description of the perpetrator—offered through witness Michael Bruch.[17] (14 RT 1754-1760.) The defense did not object, nor did it move to strike.

B. Appellant Has Forfeited His Hearsay/Confrontation Clause Claim on Appeal

The trial court expressly defined its pretrial rulings on the Nigadoff statements as "tentative." By not following up and pressing the trial court for a final ruling, appellant forfeited the claim on appeal.

Under Evidence Code section 353, a case may not be reversed for erroneous admission of evidence unless "[t]here appears of record an objection to or a motion to exclude or to strike the evidence that was timely made and so stated to make clear the specific ground of the objection or motion . . . ." While under some circumstances a motion in limine can act as a "motion to exclude" within the meaning of section 353, the motion must be made "at a time before or during trial when the trial judge can determine the evidentiary question in its appropriate context." (*People v. Morris* (1991) 53 Cal.3d 152, 190, disapproved on other grounds by *People v. Stansbury* (1995) 9 Cal.4th 824, 830, fn. 1.) This is why "[g]enerally when an in limine ruling that evidence is admissible has been made, the

[17] Brush was a retired San Francisco Police Officer. (14 RT 1743.)

party seeking exclusion must object at such time as the evidence is actually offered to preserve the issue for appeal." (*People v. Jennings* (1988) 46 Cal.3d 963, 975, fn. 3.)

The California Supreme Court noted further that "[a] tentative pretrial evidentiary ruling, made without fully knowing what the trial evidence would show, will not preserve the issue for appeal if the appellant could have, but did not, renew the objection or offer of proof and press for a final ruling in the changed context of the trial evidence itself." (*People v. Holloway* (2004) 33 Cal.4th 96, 133; see also *People v. Lewis* (2008) 43 Cal.4th 415, 481 ["Failure to press for a ruling on a motion to exclude evidence forfeits appellate review of the claim because such failure deprives the trial court of the opportunity to correct potential error in the first instance"]; *People v. Gutierrez* (2009) 45 Cal.4th 789, 818.)

The trial court in this case issued only a "tentative" pretrial ruling on the admissibility of the Nigadoff statements, indicating that it did not "have all the information" necessary to make a final ruling and needed to "hear more" about how police reports were generated in 1972 before deciding whether the report(s) at issue fell within a valid exception to the hearsay rule. The trial court thus put appellant on notice that it had not made a final ruling and that a renewed objection would be required in order to preserve the issue. Appellant made no such follow-up objection and did not press the court for a definitive ruling. Instead, defense counsel listened to the court itself elicit the disputed statements and then thanked the court, adding, "[T]hat was perfect." Further, in a subsequent conversation with the trial court, appellant's counsel acknowledged that he abandoned hearsay-based objections to the Nigadoff statements:

> The Court: . . . [T]here's various exceptions to the hearsay rule, and I think it just appeared during trial that both sides just threw in the towel on the hearsay rule and the [entirety of the Nigadoff statements] came in. Is that basically what happened?

Mr. Maloof: Sounds like what happened.

(21 RT 3233.) Therefore, no claim of error related to the admission of the Nigadoff statements may be raised on appeal.

Appellant argues alternatively that if the claim was not preserved on appeal then the failure to press for a final ruling from the trial court constituted ineffective assistance of counsel under *Strictland v. Washington* (1984) 466 U.S. 668 and *People v. Pope* (1979) 23 Cal.3d 412. (AOB 112.) This claim should not be considered on appeal (*People v. Mendoza Tello* (1997) 15 Cal.4th 264, 266-267), particularly because there were obvious valid tactical reasons for defense counsel to refrain from objecting. The jury would have been aware of Helen Nigadoff's presence at the crime scene in any event, and that she provided a description of the perpetrator to Officer Forbes, because Inspector Cleary observed it happening: "[Ms. Nigadoff] gave a description to the best of her ability, and it was very—she was very emphatic in the description she gave . . . ." (14 RT 1675; see also 14 RT 1674, 1676.) Had Ms. Nigadoff's statements not been received into evidence, defense counsel could have been justifiably concerned that the jury would assume from Inspector Cleary's recollections that Ms. Nigadoff provided a far more specific and incriminating description of the perpetrator than she actually did.

Further, defense counsel was able to vicariously impeach Ms. Nigadoff by pointing out differences between her statements to Officer Forbes and Inspector Manley. (14 RT 1797-1801.) Defense counsel also discussed the inconsistencies in Ms. Nigadoff's statements during closing argument in an effort to discredit her. (22 RT 3469-3470.) Attempting to cast doubt upon the reliability or veracity of the single eyewitness, whom the jury would inevitably have known about, in conjunction with appellant's concerted attack on the reliability of the DNA evidence, was a sound tactic.

Finally, defense counsel told the court that a reference made by Ms. Nigadoff to a noisy disturbance in Diana Sylvester's apartment several weeks before the murder may have implied that a friend of the victim's was involved in her killing, particularly in light of a healed wound identified on Ms. Sylvester's body during the autopsy. (15 RT 1949.) This theory of third party culpability was advanced by the defense in its closing argument, based upon Ms. Nigadoff's statement. (22 RT 3458-3459.) Counsel was far from ineffective in this case.

C. The Evidence at Issue Was Properly Received

Even if appellant had objected at trial to admission of Ms. Nigadoff's statement to Officer Forbes, that objection—whether on hearsay or confrontation clause grounds—would have been properly overruled.

In general, the de novo standard of review applies to claims that involve a defendant's constitutional right to confrontation. (*People v. Seijas* (2005) 36 Cal.4th 291, 304.)

Under *Crawford v. Washington* (2004) 541 U.S. 36, 61-68, out-of-court testimonial statements may not be admitted unless the declarant is unavailable and the defendant has had a prior opportunity to cross examine that witness. The Supreme Court clarified in *Davis v. Washington* (2006) 547 U.S. 813 that not all statements made in response to police questioning are testimonial, particularly when the conversation is "to enable police assistance to meet an ongoing emergency." (547 U.S. at p. 822.) The California Supreme Court has interpreted *Davis* to mean that a hearsay statement made under circumstances that were not in any way analogous to the giving of testimony at trial is not considered testimonial, nor is a statement not given in order to "establish or prove some past fact for possible use in a criminal trial." (*People v. Cage* (2007) 40 Cal.4th 965, 984.) All the circumstances surrounding the making of the statement at issue must be objectively considered in determining the "intent of the

participants in the conversation," and statements that are given and received in order to "deal with a contemporaneous emergency" are not testimonial. (*Ibid*.)

In this case, Ms. Nigadoff's original description of the perpetrator to Officer Forbes was indeed made in the course of a current emergency, and thus was not testimonial. Officer Forbes arrived on scene to find a murdered woman lying on the floor and a hysterical landlady giving a description of the perpetrator while standing near the victim's body. (3 CT 608.) The murder had obviously just happened: blood was still "oozing from a wound in the middle of [Diana Sylvester's] chest." (3 CT 608.) Further, Ms. Nigadoff stated that she began hearing loud noises from the apartment upstairs at approximately 8:20 a.m., which lasted for 20 minutes, followed by the perpetrator fleeing. (3 CT 608.) Officer Forbes was on-scene by 8:52 a.m. (3 CT 608.) Officers immediately gave Ms. Nigadoff's description of the killer to police communications and called an ambulance. (3 CT 608.)

In other words, everything that happened when officers first arrived on the scene—including taking the perpetrator's description from Ms. Nigadoff—was done in the rush of encountering a homicide that had just happened and in order to find the nearby killer (he fled on foot) before he could get away or, for all the officers knew, kill again. Ms. Nigadoff's statements to Officer Forbes are analogous to the 911 caller's description of the domestic violence she had just experienced that the Supreme Court held not to be testimonial in *Davis v. Washington*, *supra*, 547 U.S. at pages 827-828 because the statements were made in a frantic manner in a chaotic and frightening setting in order to resolve a current emergency. (See *People v. Cage*, *supra*, 40 Cal.4th at pp. 982-983.) As the Supreme Court noted, the existence of exigent circumstances "may often mean that 'initial inquiries'

produce nontestimonial statements." (*Davis v. Washington*, *supra*, 547 U.S. at p. 832.)

Accordingly, the confrontation clause did not compel an opportunity to cross-examine Ms. Nigadoff, who had died before trial, as a prerequisite to the admissibility of her initial statement. The prosecutor's citation of the "spontaneous statement" exception to the hearsay rule (Evid. Code, § 1240) was apt, because the statement "[w]as made spontaneously while the declarant was under the stress of excitement caused by such perception." (Evid. Code, § 1240, subd. (b).) The trial court did not abuse its discretion in accepting that argument. (See *People v. Waidla*, *supra*, 22 Cal.4th 690, 725 [abuse of discretion standard applies to the review of trial court rulings on the admissibility of evidence].)

The fact that the source of Ms. Nigadoff's non-testimonial statements was a police report does not change the Sixth Amendment analysis, because the portion of the report containing those statements was properly admitted into evidence as an official record. "[A] police officer's report is admissible under Evidence Code section 1280 if it is based upon the observations of a public employee who had a duty to observe facts and report and record them correctly. [Citation.] Statements independently admissible, such as a party admission, contained in a police report are similarly admissible, despite their hearsay character." (*Rupf v. Yan* (2000) 85 Cal.App.4th 411, 430, fn. 6.)

Post-*Crawford*, the Court of Appeal confirmed that a police report may still be admissible as an official record, and while witness or victim statements in police reports "might . . . potentially" be testimonial, they may be admissible, conversely, if they are not testimonial: "We recognize that some information in a business or official record might indeed potentially be testimonial, such as a statement by a victim or witness contained in a police report. Indeed, such hearsay declarants do not have a

duty to accurately report information and their statements are not encompassed in *the portion of a police report that would be admissible* under the business or official records exception to the hearsay rule." (*People v. Morris* (2008) 166 Cal.App.4th 363, 373, fn. 12, italics added.)

Crawford v. Washington itself expressly exempted business records from the universe of testimonial evidence (541 U.S. at p. 56), and California courts have recognized that public records admissible under Evidence Code section 1280 can be sufficiently similar to business records to be characterized likewise as non-testimonial. (*People v. Taulton* (2005) 129 Cal.App.4th 1218, 1225 [rap sheets are non-testimonial official records].) *Taulton*, as did *People v. Morris*, *supra*, qualified its holding by noting that official records, such as police reports, that contain testimonial statements are "produced to be used in a potential criminal trial or to determine whether criminal charges should issue" and are not admissible absent an opportunity for cross-examination. (*Ibid*.) But where a police report, like the law enforcement criminal history records at issue in *Taulton* and the report here, contains non-testimonial evidence, that content is admissible absent confrontation.

D. Harmless Error

Any federal constitutional error was harmless beyond a reasonable doubt. (See *Chapman v. California*, *supra*, 386 U.S. at p. 24.) As discussed, the crucial evidence in this case was the DNA profile, which occurs only one time in a million among Caucasians. In conjunction with appellant's close ties to San Francisco and the neighborhood where Diana Sylvester lived in particular, and in view of his pattern of similarly perpetrated sexual assaults, the absence of the perpetrator's general physical description would not have resulted in a more favorable outcome for appellant.

VII. THE CONTENTS OF THE AUTOPSY REPORT WERE PROPERLY RECEIVED INTO EVIDENCE

Appellant argues that introduction of the autopsy report into evidence, as well as the admission of expert testimony relying in part upon that autopsy report, violated his Sixth Amendment right to confront and cross examine the doctors who had prepared the autopsy report in 1972. (AOB 118-124.) His assertions lack merit.

A. Facts

At trial, the prosecution called Dr. Amy Hart, the chief medical examiner for the City and County of San Francisco, who provided both expert witness and custodian of records testimony related to the 1972 autopsy conducted on Diana Sylvester. (15 RT 1804-1946.) Dr. Hart is a board-certified physician who supervises the assistant medical examiners in San Francisco. (15 RT 1805, 1806.) She has performed approximately 1,700 postmortem examinations, and supervised 3,400 to 5,100 others. (15 RT 1808.) Dr. Hart testified that autopsy reports are "written records of the observations of the physician who's conducting the autopsy" and the production and contents of those reports are mandated by provisions of the California Government Code. (15 RT 1809-1810.) She described how autopsies are performed, including the swabbing of body cavities. (15 RT 1875.) Employees of the medical examiner's office are obligated to accurately record observations during autopsies, and those observations are routinely relied upon by professionals in the field. (15 RT 1810.)

The autopsy of Diana Sylvester's remains was conducted by two physicians on the staff of the medical examiner's office in 1972, who authored the autopsy report and certified the cause of death. (15 RT 1836-1837, 1839-1840.) One of them was the chief medical examiner at the time. (15 RT 1840.) Both died before trial. (15 RT 1911.) Based on Dr.

Hart's review, the 1972 autopsy report comported with procedures still in place at the medical examiner's office. (15 RT 1841.)

Dr. Hart qualified and testified as an expert witness, with no objection from the defense. She offered expert opinion testimony based in part upon the information recorded in the medical examiner's file, including the autopsy report. (15 RT 1888.) She was also able to independently verify the findings in the report by using the photographs taken in the course of the 1972 procedure. (15 RT 1843.)

Dr. Hart also described the chain of custody of the oral and vaginal slides made during the autopsy based on standard medical examiner's office procedures and protocols. (15 RT 1885-1886.) Her testimony was based in part upon records independent of the autopsy report that recorded the collection and storage of the slides, and their eventual transfer to the San Francisco Police Department. (15 RT 1893-1897, 1909.)

The medical examiner's 1972 file was an official record within the meaning of Evidence Code section 1280. (15 RT 1819-1820, 1840-1842.) Dr. Hart read portions of the medical examiner's file into evidence with no objection from the defense. (See, e.g., 15 RT 1829-1830.) Subsequently, when Dr. Hart began to reference the contents of the autopsy report specifically, defense counsel objected "under 1280 of the Evidence Code." (15 RT 1844.) The trial court responded: "Your objection is overruled. California law authorizes the introduction into evidence of a duly authenticated autopsy report." (15 RT 1844.) In the direct and cross-examination that followed, much of the autopsy report was referenced or read as a basis for the expert opinion testimony from Dr. Hart. Counsel for appellant did not object to Dr. Hart's expert testimony in general, or to receipt of the autopsy report references in particular, on Sixth Amendment grounds.

On January 31, 2008, fifteen days after Dr. Hart's testimony concluded, the prosecutor moved into evidence the medical examiner's file from 1972, including the autopsy report. (19 RT 2766.) The defense, for the first time, objected pursuant to the Sixth Amendment confrontation right as articulated by *Crawford v. Washington*, *supra*, 541 U.S. 36. (19 RT 2767, 2770.) The trial court ruled that the 1972 autopsy report would be admitted, reasoning that it formed the basis for Dr. Hart's expert opinions (19 RT 2768) and also qualified as a trustworthy business or official record admitted for its truth (19 RT 2769, 2770 [citing *People v. Beeler* (1995) 9 Cal.4th 953, 978]). Other aspects of the medical examiner's 1972 file were admissible as chain of custody evidence. (19 RT 2768.)

B. Appellant Forfeited His Sixth Amendment Claim

Appellant concedes that he did not timely object to receipt of the contents of the 1972 autopsy report. (AOB 119.) In fact, his objection on Sixth Amendment grounds came more than two weeks after much of the report had been read or referenced in the course of Dr. Hart's testimony. Accordingly, appellant has forfeited his contention on appeal that the report's admission or Dr. Hart's testimony violated his Sixth Amendment right to confront and cross-examine the physicians who prepared the report in 1972. (*People v. Alvarez* (1996) 14 Cal.4th 155, 186 [to preserve a confrontation clause claim for appeal, there must be a "'specific'" and "'timely'" objection at trial on that exact ground]; *People v. Partida* (2005) 37 Cal.4th 428, 435; *People v. Chaney* (2007) 148 Cal.App.4th 772, 777-780; Evid. Code, § 353.)

It was not enough that appellant objected on hearsay grounds—citing the official records exception in Evidence Code section 1280—before the contents of the report were read by the witness, because a Sixth Amendment confrontation clause analysis "is distinctly different than that

of a generalized hearsay problem." (*People v. Chaney*, *supra*, 148 Cal.App.4th at p. 779.) The failure to make a confrontation clause objection denied the prosecutor the opportunity to respond appropriately and deprived the trial court of the opportunity to make a fully informed decision on the merits of the objection. (*People v. Partida*, *supra*, 37 Cal.4th at p. 435.)

Although appellant asserts that an objection would have been futile, he does so in a conclusory way. His assertion need not be credited. (See *People v. Stanley* (1995) 10 Cal.4th 764, 793.) Apparently, appellant chose to gamble by not objecting, waiting to see how the evidence came in, and then objecting when he did not like the result. The timeliness component of the objection rule is designed to foreclose such gamesmanship.

On the other hand, appellant's alternative contention that the failure to timely object represented ineffective assistance of counsel is specious. Because the cause of Diana Sylvester's death was apparent given evidence of the appearance of her body provided by other witnesses, and because, as will be discussed below, information concerning the collection, storage, and handling of the semen samples collected during the autopsy was admissible as nontestimonial chain of custody evidence, nothing critical to the prosecution's case would have been excised were the objection sustained. Fully exploring the contents of the autopsy report, however, allowed the defense to argue that significant questions existed regarding the source of the DNA evidence. (22 RT 3472-3474.)

C. Autopsy Reports Are Not Testimonial Evidence

Appellant's claim fails on its merits as well, because autopsy reports are not testimonial evidence within the meaning of *Crawford v. Washington*, *supra*.

1. *Melendez-Diaz v. Massachusetts*

In *Melendez-Diaz v. Massachusetts* (2009) __ U.S. __ [129 S. Ct. 2527], the Supreme Court held by a five-to-four margin that a sworn affidavit ("certificate") from a state crime laboratory, identifying a controlled substance seized from the defendant, was testimonial evidence under *Crawford* that should have been subject to confrontation through "the analysts." (129 S.Ct. at p. 2532.) The *Melendez-Diaz* majority characterized the certificate at issue as "functionally identical to live, in-court testimony," which *Crawford* had deemed the "'core class of testimonial statements.'" (*Ibid*.) The certificate in *Melendez-Diaz* was admitted without accompanying in-court testimony from a live witness.

The holding in *Melendez-Diaz* was of course limited to the issue presented. Justice Thomas, in a concurring opinion, noted that he had also joined the majority because he understood its opinion to address only the constitutional implications of "'formalized testimonial materials, such as affidavits, depositions, prior testimony, or confessions.'" (*Melendez-Diaz*, *supra*, 129 S.Ct. at p. 2543 (conc. opn. of Thomas, J.).) Justice Thomas did not view the majority opinion as rendering inadmissible any "extrajudicial statements" not "contained in formalized testimonial materials . . . ." (*Ibid*.) Justice Thomas's concurrence made clear that the majority opinion did not address the situation where a pathologist or forensic science professional provides opinion testimony at trial based in part upon work done by another pathologist or forensic science professional.

Because Justice Thomas was part of the five-justice majority, and because Justice Thomas subscribed to the included yet narrower, factually limited position described in his concurrence, his concurring view established the holding of the Court. (See *Marks v. United States* (1977) 430 U.S. 188, 193.)

2. Autopsy reports are nontestimonial business or official records

Autopsy reports are very different from the sworn certificates labeled "testimonial" in *Melendez-Diaz*. An autopsy report does not fall within any of the descriptions of testimonial evidence provided by *Crawford*. It is not prior testimony at a judicial proceeding. It is not generated in response to police questioning. Rather, autopsy reports are medical records—a type of business or official records within the meaning of Evidence Code sections 1271 and 1280—that are admissible absent confrontation. Consequently, the introduction of the 1972 report in this case did not violate appellant's Sixth Amendment rights.[18]

a. The medical record distinction in *Melendez-Diaz*

The confrontation clause does not apply at all to nontestimonial statements. (See *Davis v. Washington*, *supra*, 547 U.S. at p. 824 [holding that the limitation with respect to testimonial hearsay is "so clearly reflected in the text" of the confrontation clause that it "must . . . mark out not merely its 'core,' but its perimeter"].) *Melendez-Diaz* highlighted this boundary when it emphasized that the drug certificates at issue were "testimonial" in part because Massachusetts law expressly contemplated their preparation for use as evidence at trial. (129 S.Ct. at p. 2532.) The underlying reason a document is prepared is thus a key criterion in

[18] The California Supreme Court recently granted review of four formerly published cases addressing the admissibility of autopsy and forensic testing reports in light of *Melendez Diaz*. (*People v. Lopez* (2009) 177 Cal.App.4th 202, rev. granted Dec. 2, 2009 (S177046); *People v. Rutterschmidt* (2009) 176 Cal.App.4th 1047, rev. granted Dec. 2, 2009 (S176213); *People v. Gutierrez* (2009) 177 Cal.App.4th 654, rev. granted Dec. 2, 2009 (S176620); *People v. Dungo* (2009) 176 Cal.App.4th 1388, rev. granted Dec. 2, 2009 (S176886).)

determining its testimonial (or nontestimonial) status. (See also *id*. at pp. 2539-2540 ["Business and public records are generally admissible absent confrontation . . . because—having been created for the administration of an entity's affairs and not for the purpose of establishing or proving some fact at trial—they are not testimonial"].) This is a point on which the United States Supreme Court and the California Supreme Court agree. (*People v. Geier* (2007) 41 Cal.4th 555, 607 [in determining whether a statement is testimonial, "the critical inquiry is not whether it might be reasonably anticipated that a statement will be used at trial but the circumstances under which the statement was made"].)

The *Melendez-Diaz* Court emphasized the purpose-of-preparation principle when it observed that "medical reports created for treatment purposes . . . would not be testimonial under our decision today." (129 S.Ct. at p. 2533, fn. 2.) The court cited two state court opinions explaining that medical records are not testimonial in nature. (129 S.Ct. at p. 2533, fn. 2.) Both cases held that blood tests—one indicating alcohol, one indicating drugs—conducted at hospitals where impaired drivers were treated for their injuries were admissible at the subsequent trials as business records. (*Baber v. State* (Fla. 2000) 775 So.2d 258, 260-262; *State v. Garlick* (Md. 1988) 545 A.2d 27, 34-35.) The *Baber* court's reasoning was premised upon the reliability of medical records, and it quoted with approval the following language from the *Garlick* decision:

> The blood sample was not taken for the purpose of litigation. The testing was performed in the hospital and not by a police laboratory. . . . [¶] . . . Many hospital tests and procedures are performed routinely and their results are relied upon to make life and death decisions. The examining doctor relied on these objective scientific findings for Garlick's treatment and never doubted their trustworthiness. Neither do we. This high degree of reliability, as we explained early on, permits introduction of the test results contained in the hospital records presented in this case without any need for showing unavailability of the

> technician and without producing the technician. Under these circumstances the constitutional right of confrontation is not offended.

(775 So.2d at pp. 261-262, quoting *State v. Garlick*, *supra*, 545 A.2d at pp. 34-35.) The Supreme Court in *Melendez-Diaz* cited the same passage from *Garlick* in footnote 2 as an illustration of why "medical reports" are not testimonial.

b. The nature and purpose of an autopsy report

Autopsy reports are no less medical records than the hospital records discussed in *Baber* and *Garlick*, and are prepared pursuant to statutory mandates without regard to any potential criminal prosecution. Pathologists are medical doctors. Pathology is a medical specialty, defined as "[t]he medical science, and specialty practice, concerned with all aspects of disease, but with special reference to the essential nature, causes, and development of abnormal conditions, as well as the structural and functional changes that result from the disease processes." (Stedman's Medical Dict. (24th ed. 1982) p. 1041; see also 15 RT 1805.) To claim that autopsy reports, although written by physicians and documenting physiological conditions, are nonetheless not "medical records" would be a legal fiction.

To the contrary, California law recognizes that autopsy reports are "medical reports." Government Code section 72463, subdivision (e), requires coroners to document the cause of death in an official register "with reference or direction to the detailed medical reports upon which decision as to cause of death has been based." (See also 18 C.J.S. (2008) Coroners, § 26, p. 286 ["A coroner is a medical expert rendering expert opinion on medical questions" who makes "factual determinations concerning the manner, mode, and cause of death, as expressed in a coroner's report . . . "].)

Like medical records in other contexts, autopsy reports are prepared according to standardized medical protocols that do not change based on the potential future use of those reports. State law mandates that coroners "inquire into and determine the circumstances, manner, and cause" of many categories of death, both related to criminal activity (e.g., "gunshot, stabbing") and unrelated to criminal activity (e.g., "exposure, starvation, acute alcoholism, drug addiction, . . . sudden infant death syndrome; . . . contagious disease"). (Gov. Code, § 27491; see also Gov. Code, § 27491.41, subd. (c) [mandating an autopsy in "any case where an infant has died suddenly and unexpectedly"]; Health & Saf. Code, § 102850 [listing six circumstances of death in which the coroner must be notified, only one of which expressly involves a criminal act].[19]) Significantly, these statutory mandates do not command, suggest, or even imply that the purpose, methods, or nature of the coroner's inquiry change depending upon whether the "circumstances, manner, and cause" of death was related to criminal activity. (See, e.g., Gov. Code, § 27491.41, subd. (d) [infant death autopsies must be conducted using a "standardized protocol"]; *People v. Leach* (Ill.App.Ct. 2009) 908 N.E.2d 120, 130 [where county code requires the medical examiner to determine the "manner and cause" of deaths falling within 15 categories—including criminal violence, suicide, accident, disease constituting a public health threat, and death during medical

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[19] The full list set forth in Section 102850 is as follows:

"(a) Without medical attendance.

"(b) During the continued absence of the attending physician and surgeon.

"(c) Where the attending physician and surgeon or the physician assistant is unable to state the cause of death.

"(d) Where suicide is suspected.

"(e) Following an injury or an accident.

"(f) Under circumstances as to afford a reasonable ground to suspect that the death was caused by the criminal act of another."

procedures—the medical examiner does not perform a law-enforcement function].)

In fact, the pathologist's medical examination of a body is the condition precedent to any determination that criminal activity was involved, thus the reporting of that examination must always be from the perspective of a medical doctor, not that of a law enforcement investigator. (See *People v. Leach*, *supra*, 908 N.E.2d at p. 130.) This paradigm lies in stark contrast with the drug certificates at issue in *Melendez-Diaz*, which were prepared for the "sole purpose" of prosecuting the defendant. (129 S.Ct. at p. 2532.)

Accordingly, an autopsy is not performed for the purpose of contributing to subsequent criminal proceedings, any more so than an emergency room physician treats a gunshot victim for the purposes of contributing to subsequent criminal proceedings. The emergency room doctor's file does not change from a nontestimonial "medical record" to a testimonial "investigative record" based on the apparent cause of a patient's injuries. It would make little sense for an autopsy report to be nontestimonial in nature when it documents the postmortem condition of an accident or suicide victim (no prospect of criminal proceedings) but testimonial when it documents the postmortem condition of a homicide victim (definite prospect of criminal proceedings), when the methods, protocols, and statutory obligations of the pathologist are identical in both scenarios.

The conclusion that a pathologist examines a body from a medical and not a law enforcement perspective is supported by additional statutory mandates that define a coroner's role independently of any law enforcement consequences the work may entail. In fact, a comprehensive summary of California law related to the functions and duties of coroners states that "[t]he coroner must inquire into the cause of some deaths in order to

prepare death certificates." (15 Cal.Jur.3d (2004) Coroners, § 15, p. 18.) Health and Safety Code section 102860 requires coroners to document on death certificates "the disease or condition directly leading to death, antecedent causes, other significant conditions contributing to death and other medical and health section data as may be required on the certificate, and the hour and day on which death occurred." (See also Health & Saf. Code, §§ 102875 [describing contents of death certificate without reference to potential law enforcement consequences of autopsy], 102795 [coroner's obligation to certify medical and health section data on death certificates], 102800 [same].) Further, "[t]he coroner shall specifically indicate the existence of any cancer . . . of which he or she has actual knowledge." (Health & Saf. Code, § 102860.) These are statutory obligations required of medical doctors performing primary duties irrespective of their law enforcement implications, not duties required of law enforcement investigators.

Many courts have recognized that the mode of creation of autopsy reports distinguishes them from testimonial writings prepared in anticipation of criminal proceedings. The First Circuit Court of Appeals summarized the prevalent reasoning as follows:

> An autopsy report is made in the ordinary course of business by a medical examiner who is required by law to memorialize what he or she saw and did during an autopsy. An autopsy report thus involves, in principal part, a careful and contemporaneous reporting of a series of steps taken and facts found by a medical examiner during an autopsy. Such a report is, we conclude, in the nature of a business record, and business records are expressly excluded from the reach of *Crawford*.

(*United States v. De La Cruz* (1st Cir. 2008) 514 F.3d 121, 133; see also *United States v. Feliz* (2d Cir. 2006) 467 F.3d 227, 236-237 [autopsy reports are kept in the course of regularly conducted business activity and are nontestimonial under *Crawford*]; *Manocchio v. Moran* (1st Cir. 1990)

919 F.2d 770, 778 [autopsy reports are business records akin to medical records, prepared routinely and contemporaneously according to "statutorily regularized procedures and established medical standards" and "in a laboratory environment by trained individuals with specialized qualifications"]; *State v. Craig* (Ohio 2006) 853 N.E.2d 621, 639 [autopsy reports admissible as nontestimonial business records under *Crawford*]; *Denoso v. State* (Tex.Ct.App. 2005) 156 S.W.3d 166, 182 [same]; *State v. Cutro* (S.C. 2005) 618 S.E.2d 890, 896 [same]; *Campos v. State* (Tex.Ct.App. 2008) 256 S.W.3d 757, 762-763 [same]; *State v. Russell* (La.Ct.App. 2007) 966 So.2d 154, 165 [relying on Louisiana statute making reports admissible to prove death and cause of death, and singling out "routine, descriptive, non-analytical, and thus, nontestimonial" information in the autopsy report].)

Although a medical examiner may reasonably expect that an autopsy report will be used in a criminal prosecution when the deceased appears to be the victim of foul play, that circumstance alone does not make the report testimonial. (See *United States v. Feliz*, *supra*, 467 F.3d at p. 235 ["Certainly, practical norms may lead a medical examiner reasonably to expect autopsy reports may be available for use at trial, but this practical expectation alone cannot be dispositive on the issue of whether those reports are testimonial"]; *United States v. Ellis* (7th Cir. 2006) 460 F.3d 920, 926 ["the mere fact a person creating a business record (or other similar record) knows the record might be used for criminal prosecution does not by itself make the record testimonial"].) The California Supreme Court stated that, in determining whether a statement is testimonial,

> the proper focus is not on the mere reasonable chance that an out-of-court statement might later be used in a criminal trial. Instead, we are concerned with statements, made with some formality which, *viewed objectively*, are for the *primary purpose*

> of establishing or proving facts for possible use in a criminal trial.

(*People v. Cage*, *supra*, 40 Cal.4th 965, 984, fn. 14, italics in original.) As discussed, the primary purpose of conducting an autopsy is to fulfill the statutory duty of generating cause of death information for death certificates, and most fundamentally involves the neutral and objective recordation of medical facts based on a medical examination without respect to criminal justice consequences.

In sum, nothing in the record in this case indicates that the autopsy report was other than a nontestimonial medical record. To the contrary, Dr. Hart testified that autopsy reports are created contemporaneously with the examination, follow a standardized format, are mandated by law, and are routinely relied upon by other pathologists. Admission of the autopsy report in this case did not violate the confrontation clause.

3. Chain of custody evidence is not testimonial

To the extent that appellant claims that he was prejudiced by not being able to cross examine the original doctors who conducted the autopsy concerning the collection, labeling, and handling of the swabs (AOB 124), his argument likewise fails.

A number of documents in the 1972 medical examiner's file were routine forms, labels, and notations recording the chain of custody for the swabs and slides at issue collected during the Diana Sylvester autopsy. (15 RT 1893-1897, 1909.) In *Melendez-Diaz*, the Supreme Court made clear that chain-of-custody evidence is not testimonial. The dissent in *Melendez-Diaz* case raised the possibility of requiring "in-court testimony from each human link in the chain of custody." (129 S.Ct. at p. 2546 (dis. opn. of Kennedy, J.) The majority rejected this characterization of its opinion by stating that it "does not mean that everyone who laid hands on the evidence must be called." (*Id*. at p. 2532, fn. 1; see also *State v. Forte* (N.C. 2006)

629 S.E.2d 137, 143 [toxicology report admissible for chain of custody purposes despite unavailability of analyst]; *Michels v. Commonwealth* (Va.Ct.App. 2006) 624 S.E.2d 675, 679-680 [governments records not testimonial if neutral and non-accusatory].) And the prosecution presented the chain of custody evidence through a live witness, namely, Dr. Hart in her role as custodian of records for the medical examiner's office. (See *Melendez-Diaz*, *supra*, 129 S.Ct. at p. 2532, fn. 1 ["[W]hat [chain of custody] testimony is introduced must (if the defendant objects) be introduced live"].)

Accordingly, even if the 1972 medical examiner's file in the present case is considered testimonial evidence, to the extent its contents were referenced as official records for purposes of contributing chain-of-custody proof, it did not implicate appellant's confrontation right.

D. The Jury Properly Received Dr. Hart's Testimony

Even if the autopsy report is viewed as inadmissible testimonial evidence, Dr. Hart's opinion testimony based in part upon the contents of that report was properly received. "As a general rule, a trial court has wide discretion to admit or exclude expert testimony. [Citations.] An appellate court may not interfere with the exercise of that discretion unless it is clearly abused." (*People v. Page* (1991) 2 Cal.App.4th 161, 187.) The trial court did not abuse that discretion in this case.

Evidence Code section 801, subdivision (b), provides that an admissible expert opinion may be "[b]ased on matter . . . made known to [the witness] at or before the hearing, whether or not admissible, that is of a type that reasonably may be relied upon by an expert in forming an opinion upon the subject to which his testimony relates, unless an expert is precluded by law from using such matter as a basis for his opinion."

As the California Supreme Court explained, expert testimony may "be premised on material that is not admitted into evidence so long as it is

material of a type that is reasonably relied upon by experts in the particular field in forming their opinions." (*People v. Gardeley* (1996) 14 Cal.4th 605, 618.) "And because Evidence Code section 802 allows an expert witness to 'state on direct examination the reasons for his opinion and the matter . . . upon which it is based,' an expert witness whose opinion is based on such inadmissible matter can, when testifying, describe the material that forms the basis of the opinion." (*Ibid.*; see *People v. Beeler*, *supra*, 9 Cal.4th at pp. 980-981 [opinion in autopsy report regarding cause of death was properly relied upon by different medical examiner testifying at trial]; *People v. Clark* (1992) 3 Cal.4th 41, 159 [autopsy report qualified as official record within the meaning of Evidence Code section 1280, such that witness coroner who did not prepare it could testify concerning its contents]; *People v. Wardlow* (1981) 118 Cal.App.3d 375 [same]; *Commonwealth v. Nardi* (Mass. 2008) 893 N.E.2d 1221, 1230-1231 [confrontation clause not violated when testifying experienced pathologist based cause of death opinion on documentation and photographs in another pathologist's autopsy report].) There can be no violation of a defendant's confrontation rights where the challenged statement was not admitted for its truth, but instead forms the basis for evaluating the expert's opinion. (Cf. *Crawford v. Washington*, *supra*, 541 U.S. at p. 59, fn. 9 ["The [confrontation c]lause . . . does not bar the use of testimonial statements for purposes other than establishing the truth of the matter asserted"].)

Nothing in *Melendez-Diaz* conflicts with admission of qualified expert opinion testimony that is based in part upon standard laboratory notes and reports. In *United States v. Turner* (7th Cir. Jan. 12, 2010, No. 08-3109) __ F.3d __ [2010 U.S.App. Lexis 683], the Seventh Circuit considered whether *Melendez-Diaz* implicated the validity of Federal Rule of Evidence 703, the federal equivalent to California's Evidence Code section 801, subdivision (b). It held that "*Melendez-Diaz* did not do away

with Federal Rule of Evidence 703." (2010 U.S.App. Lexis at p. *14; see also *State v. Lui* (Wash.Ct.App., Nov. 23, 2009, No. 61804-1-I) 2009 Wash.App. Lexis 2892, *29-*37.)

The confrontation clause exists "to ensure reliability of evidence" by exposing it to the "crucible of cross-examination." (*Crawford*, *supra*, 541 U.S. at p. 61.) In other words, the confrontation clause is satisfied if a defendant can adequately test the reliability of a scientific conclusion result by engaging in cross-examination. As the Supreme Court observed elsewhere, "The central concern of the Confrontation Clause is to ensure the reliability of the evidence against a criminal defendant by subjecting it to rigorous testing in the context of an adversary proceeding before the trier of fact." (*Maryland v. Craig* (1990) 497 U.S. 836, 845.) In the context of forensic science, the identity of the person cross-examined is and should be a separate issue from the ability to challenge the scientific evidence offered against the defendant.

Melendez-Diaz did not hold that the confrontation clause dictates that every person who provides a link in the chain of information relied on by a testifying expert be exposed to cross-examination, or that every person who can offer information about a forensic examination be called by the prosecution. Rather, *Melendez-Diaz* recognized a defendant's right to pursue cross-examination on such matters as an analyst's lack of proper training or deficiency in judgment, what tests the analyst performed, whether those tests were routine, and whether interpreting the results required the exercise of judgment or the use of skills that the analysts may not have. (129 S.Ct. at pp. 2537-1238.) These are the core issues of concern to a defendant seeking to challenge the reliability of forensic science observations or results.

Accordingly, the confrontation clause is satisfied when a witness, like Dr. Hart, who possesses sufficient qualifications and knowledge about the

forensic autopsy process and reviewed data and photographs of the autopsy in question, can be cross-examined about those matters identified in *Melendez-Diaz* which test the reliability of the scientific findings. Any deficiencies in Dr. Hart's knowledge of the 1972 autopsy can be and were probed in cross-examination and called to the jury's attention in argument, fulfilling the confrontation right. (See *Delaware v. Fensterer* (1985) 474 U.S. 15, 22.) A defendant has no right, however, to "cross-examination that is effective in whatever way, to whatever extent, the defense may wish." (*Id*. at p. 20.)

In this respect, *Melendez-Diaz* is consistent with the California Supreme Court's opinion in *People v. Geier*, *supra*, 41 Cal.4th 555. One important factor cited by *Geier* to support the admissibility of the laboratory test results was that the ultimate opinions offered at trial were through a qualified testifying witness. (*Id*. at p. 607.) *Geier* thus distinguished between information in the report and expert opinion testimony based on such information.[20] The in-court presence of an expert to offer opinions based on independent review of raw data and material produced by laboratory colleagues provides the opportunity for confrontation crucially missing in *Melendez-Diaz*.

In this case, the autopsy report admitted into evidence did not "bear testimony" against appellant. Nor did it improperly function as the equivalent of live testimony as did the affidavits at issue in *Melendez-Diaz*. Rather, the "statement" used at appellant's trial was pathologist and Chief

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[20] When presented with the opportunity to review *Geier*, the United States Supreme Court declined to do so. Just four days after deciding *Melendez-Diaz*, the Court denied the petition for writ of certiorari in *Geier*. (*Geier v. California* (2009) __ U.S. __ [129 S.Ct. 2856].) To the extent it was not implicitly rejected by *Melendez-Diaz*, *Geier* remains controlling law in California.

Medical Examiner Dr. Amy Hart's expert opinion concerning the cause of Diana Sylvester's death. Dr. Hart rendered opinions independent of, but consistent with, those of the original physicians who performed the autopsy. And Dr. Hart properly relied upon the observational detail and photographs recorded in the 1972 report to authenticate the various swabs that were subsequently analyzed for DNA.

Appellant had ample opportunity to cross-examine Dr. Hart regarding the findings in the autopsy report, the general procedures for performing autopsies, the documentation of results (photographic and otherwise), and the preservation of samples. Dr. Hart was just as capable of addressing those issues as the original examiners would have been, especially because (1) a medical examiner would not likely have an independent recollection of performing an autopsy 35 years before, and would have had to rely upon the report to the same extent Dr. Hart did, and (2) Dr. Hart was the Chief Medical Examiner and thus particularly capable of rendering opinions on matters of procedure, protocol, and documented facts. (See Zabrycki, *Toward a Definition of "Testimonial": How Autopsy Reports Do Not Embody the Qualities of a Testimonial Statement* (2008) 96 Cal. L.Rev. 1093, 1116 ["A deviation from the medical examiner's standard procedure can be exposed by confronting another examiner from the office. Similarly, any experienced medical examiner can explain the susceptibility of physical descriptions to characterization, and how a different characterization could affect the conclusion"].)

In short, nothing in *Melendez-Diaz* precluded Dr. Hart from relying upon the 1972 autopsy report in formulating her opinions, and Dr. Hart's presence in court satisfied appellant's Sixth Amendment rights.

E. Harmless Error

Any error in the admission of the autopsy report was harmless beyond a reasonable doubt. (*Chapman v. California*, *supra*, 386 U.S. at p. 24;

People v. Davis (2009) 46 Cal.4th 539, 620 [applying *Chapman* to *Crawford* claim].) The primary relevance of the autopsy report was twofold: first, to establish the cause of death, and second, to describe the chain of custody relating to the semen samples collected from Diana Sylvester's body and later subjected to DNA testing. There was, however, ample evidence of the cause of death based on the testimony of police officers who arrived at the crime scene the morning of December 22, 1972, and described the stab wounds in Ms. Sylvester's torso. (13 RT 1640, 1643; 14 RT 1755.)

There was also plainly nontestimonial evidence that the oral and vaginal slides at issue were collected in the course of Diana Sylvester's autopsy in 1972, stored there in a secure location until 2004, and then transferred to the police department in 2004. (15 RT 1885-1886.) This testimony was not based exclusively on the autopsy report, but in addition on evidence logs, evidence storage envelopes, and labels affixed to the slides themselves. Each document was independently shown to be an official record whose contents were described without objection from appellant, and each document was admitted into evidence for consideration by the jury. (15 RT 1893-1898, 1909; 19 RT 2768-2769.) Therefore, contrary to appellant's claim (AOB 124), neither the autopsy report nor testimony about its contents was the exclusive source of evidence about the source of and chain of custody for the crime scene semen samples. Any error in admitting the autopsy report was harmless.

VIII. APPELLANT SUFFERED NO CUMULATIVE PREJUDICE

Appellant asserts finally that the finding of two or more errors would warrant reversal by their cumulative prejudice even if not prejudicial in isolation. (AOB 125-126.) Because, as discussed, there was no prejudicial error in the trial court, there is no cumulative prejudice to consider. (*People v. McWhorter*, *supra*, 47 Cal.4th 318, 377.)

CONCLUSION

Accordingly, respondent respectfully requests that the judgment be affirmed.

Dated: January 20, 2010

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I certify that the attached **RESPONDENT'S BRIEF** uses a 13 point Times New Roman font and contains 26,318 words.

Dated: January 20, 2010

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