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CERTIFIED FOR PARTIAL PUBLICATION*

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

THIRD APPELLATE DISTRICT

(Sacramento)

THE PEOPLE, Plaintiff and Respondent, v. PAUL EUGENE ROBINSON, Defendant and Appellant.	C044703 (Super. Ct. No. 00F06871)

APPEAL from a judgment of the Superior Court of Sacramento County, Peter N. Mering, Judge. Affirmed.

Cara DeVito, under appointment by the Court of Appeal, for Defendant and Appellant.

Edmund G. Brown, Jr., Bill Lockyer, Attorneys General, Mary Jo Graves, Dane R. Gillette, Chief Assistant Attorneys General, Gerald A. Engler, Senior Assistant Attorney General, Michael Chamberlain, Doris A. Calandra and Enid A. Camps, Deputy Attorneys General, for Plaintiff and Respondent.

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* Pursuant to California Rules of Court, rule 8.1110, this opinion is certified for publication with the exception of Parts II through V of the Discussion.

In this appeal we hold that the statute of limitations for a sexual offense is satisfied when the prosecution is commenced within the period of limitations by the filing of an arrest warrant predicated upon the identification of the perpetrator by a DNA profile. (See Pen. Code, § 804, subd. (d).)[1]

Defendant Paul Eugene Robinson was convicted by a jury of one count of forcible oral copulation (§ 288a, subd. (c)(2)[2]; Ct. 1), two counts of penetration with a foreign object (§ 289, subd. (a)(1); Cts. 2-3), and two counts of rape (§ 261, subd. (a)(2); Cts. 4-5).[3]

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[1] All further section references are to the Penal Code unless otherwise specified.

[2] The abstract of judgment erroneously designates this offense as a violation of section 288, subdivision (a)(2). We shall order that the abstract of judgment be amended to correct this error.

[3] The jury also found true that defendant used and was armed with a knife during the commission of each offense. (Former §§ 12022, subd. (b(1) (Stats. 1993, ch. 660, § 26; ch. 611, § 30) and 12022.3, subds. (a) and (b) (Stats. 1993, ch. 299, § 2).)

By information, defendant was also charged with eight additional counts involving Heather O. for burglary (§ 459), foreign object penetration (§ 289, subd. (a)(1)), oral copulation (§ 288a, subd. (c)(2)), rape (§ 261, subd. (a)(2)), and sexual battery. (§ 243.4, subd. (a).) The jury was unable to reach a verdict on these charges, a mistrial was declared, and the charges were dismissed.

The information also charged defendant with 15 prior conviction enhancements. (§§ 667, subds. (a), (b)-(1), 667.5, subd. (b), and 1170.12.) Although neither party mentions the disposition of these allegations, our review of the record

A criminal offense is within the statute of limitations when the prosecution for the offense is commenced within the applicable period of limitations. The "prosecution for an offense is commenced when . . . [a]n arrest warrant . . . is issued [and] names or describes the defendant with the same degree of particularity required for an indictment, information, or complaint." (§ 804, subd. (d).) The charging provisions permit the use of a fictitious or John Doe name. (See also § 815 [arrest warrant].) However, for constitutional and statutory reasons "a 'John Doe' warrant must describe the person to be seized with reasonable particularity. . . . [¶] . . . [A fictitious name] does not obviate the necessity of describing the person to be arrested. If a fictitious name is used the warrant should also contain sufficient descriptive material to indicate with reasonable particularity the identification of the person whose arrest is ordered [Citation]." (*People v. Montoya* (1967) 255 Cal.App.2d 137, 142-143, fn. omitted, relying on *West*

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discloses that the trial court impliedly struck them because the underlying convictions were entered after defendant committed the crimes against Deborah L., on the grounds they did not constitute prior convictions for purposes of sentence enhancements. (See *People v. Rojas* (1988) 206 Cal.App.3d 795, 802 ["to be subject to the five-year enhancement pursuant to section 667, subdivision (a), a defendant's prior serious felony conviction must have occurred before the commission of the present offense"].)

The trial court imposed an aggregate prison term of 65 years after selecting the upper term for all five counts and all five use enhancements. The court stayed imposition of sentence on the remaining enhancements.

v. Cabell (1894) 153 U.S. 78 [38 L.Ed. 643]; see also Cal. Const., art. I, § 13 [“a warrant may not issue, except on probable cause . . . particularly describing the . . . persons and things to be seized”]; § 813, subd. (a) [magistrate must find “reasonable ground” to believe defendant committed the offense].)

The offenses in this case occurred on August 25, 1994. On August 21, 2000, four days before the six-year statute of limitations (§ 800) was set to expire, the Sacramento County District Attorney filed a felony complaint against “John Doe, unknown male,” describing the defendant by a 13-locus DNA profile developed from semen taken from the victim. The next day, an arrest warrant was issued incorporating the DNA profile. The warrant was executed on September 15, after defendant’s name was obtained from a match between the 13-locus DNA profile of the perpetrator and his genetic profile entered into the state’s DNA Databank.

On appeal, defendant contends that prosecution of his offenses was not commenced by the issuance of the arrest warrant because the warrant did not satisfy the particularity requirement of section 804, subdivision (d). In the published portion of the appeal we conclude that the DNA profile of the perpetrator of a sexual offense incorporated in an arrest warrant provides the particularity of identification of an

offender required by section 804.[4] (*People v. Montoya, supra,* 255 Cal.App.2d at pp. 142-144.)

We shall affirm the judgment.

FACTUAL AND PROCEDURAL BACKGROUND

In the early morning hours of August 25, 1994, 24-year-old Deborah L., the victim in this case, awoke to find defendant, a man she had never seen before, standing in her bedroom. He told her to be quiet and that he was there "to get some pussy." He was wearing garden gloves and holding a kitchen knife. When she started to scream, he called her a "white bitch" and threatened to kill her if she did not shut up.

He climbed on top of the victim and held a knife to her chest, cutting her finger when she attempted to grab it. Defendant then directed the victim to cover her face with a pillow and fondled her breasts, placed his mouth on her vagina, inserted his fingers in her vagina and rectum, and raped her. After losing and then regaining an erection, he raped her a second time, then withdrew his penis, ejaculated on her legs, and rubbed his semen all over her stomach.

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[4] In the unpublished portion of the opinion we also reject the defendant's additional claims that the trial court committed reversible error by failing to suppress DNA evidence obtained in violation of his Fourth Amendment rights, admitting expert testimony concerning DNA statistical frequency analysis, and imposing upper terms of imprisonment in violation of his Sixth Amendment right to a jury trial under *Blakely v. California* (2004) 542 U.S. 296 [159 L.Ed.2d 403](hereafter *Blakely*).

When he was finished assaulting the victim, he put the gloves back on, dressed himself, and told her not to look at him or call the police or he would kill her. After he left, she called 911 and reported the attack. The police arrived shortly thereafter and the victim was transported to a medical facility where she was examined and a rape kit prepared. A vaginal swab tested positive for the presence of semen.

A few days later, Detective Willover of the Sacramento City Police Department interviewed the victim. At that time, she described her assailant as a black male adult who "sounded black," was about 25 pounds overweight with a round face, and approximately five feet eight inches tall. She informed Willover that during the attack, the assailant repeatedly told her he was Mexican or Chicano and while she thought he was black, he could have been either a dark Mexican or a light skinned black man.[5]

It was stipulated that defendant's blood was collected prior to September 2000, his DNA was tested and his 13-locus profile was entered into the offender database maintained by the California Department of Justice (DOJ).

In August 2000, Jill Spriggs, Assistant Director of the DOJ Crime Laboratory in Sacramento, developed a DNA profile of the assailant from the vaginal swab of the victim. Spriggs then requested Henry Tom, a DOJ DNA criminalist, to search the DOJ

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[5] The record shows that defendant is African-American.

Convicted Offender Databank to determine whether the DNA profile of the assailant matched the DNA profile of any convicted offender in the databank. He entered the DNA profile of the evidentiary sample into the computer, ran a search that compared the profile to the DNA profile of all other entrants in the databank, and obtained a "cold hit," which is a match between the assailant's profile and the profile of a person previously entered into the databank. DOJ records disclosed the matching profile belonged to defendant and Tom sent the information to Spriggs.

After receiving that information, Spriggs conducted an independent DNA analysis using a blood sample obtained from defendant upon his arrest. Spriggs developed his DNA profile, compared it with the DNA profile of the evidentiary sample from the vaginal swab, found the two profiles matched along all 13 loci, and concluded they belonged to the same person.

Spriggs testified that once a profile is developed, a statistical calculation is performed to determine the frequency of that particular genetic profile in a random unrelated population. The probability of a 13-loci match as in this case is one in 650 quadrillion in the African American population, one in six sextillion in the Caucasian population, and one in 33 sextillion in the Hispanic population. There are no reported cases of two people matching at all 13 loci other than identical twins.

Defendant did not take the stand but contested the reliability of the statistical probability evidence. We shall discuss that evidence in more detail as pertinent in the discussion portion of our decision.

DISCUSSION

I.

John Doe/DNA Arrest Warrant

Defendant contends that issuance of a John Doe/DNA arrest warrant failed to toll the statute of limitations and that use of such a warrant to toll the statutory period violates his right to due process.[6]

We set forth the pertinent procedural background before addressing each claim.

A. Procedural Background

The governing period of limitations for the sexual offenses charged in this case is six years. (§ 800.)[7] Since the offenses were committed on August 25, 1994, the period of limitations was set to expire on August 25, 2000.

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[6] The correct contention is that the prosecution was not commenced within the period of limitations. Tolling refers to the extension of the period of limitations for a reason set forth in section 803.

[7] The "prosecution for an offense punishable by imprisonment in the state prison for eight years or more shall be commenced within six years after commission of the offense." (§ 800.) The maximum sentence for the offenses for which defendant was convicted is eight years. (§ 288a, subd. (c)(2), § 289, subd. (a)(1), § 261, subd. (a)(2), § 264.)

On August 21, 2000, four days before that expiration date, the Sacramento County District Attorney filed a felony complaint against "John Doe, unknown male," described by a 13-locus DNA profile.[8] The next day, Detective Willover prepared and presented an arrest warrant which incorporated the DNA profile,[9] and a statement of probable cause to Magistrate Jane Ure, who signed it.

Three weeks later, on September 15, 2000, Detective Willover received a message from the Department of Justice DNA

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[8] That profile is described as "Short Tandem Repeat (STR) . . . (DNA) Profile at the following Genetic Locations, using the COfiler and Profiler Plus Polymerase Chain Reaction (PCR) amplifications kits: D3S1358 (15, 15), D16S539 (9,10), TH01 (7,7), TPOX (6,9) CSF1PO (10,11), D7S820 (8,11) vWa (18,19), FGA (22,24), D8S1179 (12,15), D21S11 (28,28) D18S51 (20,20), D5S818 (8,13), D13S317 (10,11), with said Genetic Profile being unique, occurring in approximately 1 in 21 sextillion of the Caucasian population, 1 in 650 quadrillion of the African American population, 1 in 420 sextillion of the Hispanic population . . . ."

[9] Defendant's DNA profile was not entered on the face of the warrant because the computer system would not allow that many characters to be entered within the limited space available. However, the Fourth Amendment does not prohibit a warrant from cross-referencing other documents and most Courts of Appeals have held that a court may construe a warrant with reference to a supporting affidavit if the warrant uses appropriate words of incorporation and the affidavit accompanies the warrant. (*Groh v. Ramirez* (2004) 540 U.S. 551, 557-558 [157 L.Ed.2d 1068, 1078; see also *People v. MacAvoy* (1984) 162 Cal.App.3d 746, 755-756.) The trial court found (1) the warrant appropriately cross-referenced the affidavit and complaint and the affidavit was incorporated by reference into the warrant. On appeal, defendant does not challenge the trial court's factual findings or legal conclusions.

Laboratory (DOJ Lab) that there was a cold hit match between the DNA profile obtained from the vaginal swab of the victim and the DNA profile of Paul Eugene Robinson, whose genetic profile had been entered in the state's DNA Databank Program. Willover ran a records check on defendant and determined that he was currently out of custody and on active parole and that there were other outstanding warrants for his arrest. The DNA arrest warrant apparently was amended to insert the defendant's name. It was executed by the arrest of defendant on September 15, 2000. A first amended complaint was filed four days later on September 19, 2000, naming Paul Eugene Robinson as the defendant.

Defendant moved to dismiss the first amended complaint for lack of jurisdiction. The trial court held an evidentiary hearing and denied the motion after finding that a DNA profile is the "most accurate description we have to date" and meets the constitutional and statutory requirements that the person to be arrested be particularly described.

B. Statute of Limitations

Defendant contends the trial court lacked personal jurisdiction over him because the six-year statute of limitations had expired by the time the amended complaint was filed. In his view, issuance of a John Doe arrest warrant with a DNA profile does not validly commence the prosecution because a genetic profile does not particularly describe the person to

be arrested and therefore fails to satisfy the statutory and constitutional particularity requirement.

Respondent contends this claim has no merit because a DNA profile is a generally accepted forensic identification tool that satisfies the particularity requirement. We agree with respondent and hold that an arrest warrant, which identifies the person to be arrested for a sexual offense by incorporation of the DNA profile of the assailant, satisfies the statutory particularity requirement of section 804, subdivision (d) read in the light of section 813, subdivision (a) and pertinent constitutional provisions.

We first clarify what is at issue. Defendant contends a John Doe/DNA arrest warrant is insufficient to toll the statute of limitations. (see fn. 6, *supra*.) He does not claim the warrant is unsupported by probable cause, the warrant was improperly executed, or that he was improperly arrested because he was not the person described in the warrant. Indeed at the time the warrant was executed, defendant's true name and identity were known to the officers and he was located using traditional methods of identification. Thus, defendant makes no claim that this arrest warrant was invalid on Fourth Amendment grounds. With this in mind we consider his claim.

Defendant appears to argue that the particularity requirement in section 804, subdivision (d), must be read in the light of the federal and state constitutions. With this we agree.

The statute of limitations for the offenses with which defendant was charged is codified in section 800. It provides that "prosecution for an offense punishable by imprisonment in the state prison for eight years or more shall be *commenced* within six years after commission of the offense." (Italics added.)

A felony prosecution is "commenced" when any one of the following events occurs: an indictment or information is filed (§ 804, subd. (a)), a case is certified to the superior court (*id.*, subd. (c)), or as was done in this case, *"[a]n arrest warrant or bench warrant is issued, provided the warrant names or describes the defendant with the same degree of particularity required for an indictment, information, or complaint*." (*Id.*, subd. (d), italics added.)

With respect to the particularity required for naming the person to be arrested, an arrest warrant may describe the person to be arrested by a fictitious name (§ 815)[10] and, as noted above, must name the defendant with the same degree of particularity required for an indictment, information, or complaint (§ 804, subd. (d)), which may be filed using a

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[10] Section 815 states in pertinent part: "A warrant of arrest shall specify the name of the defendant or, if it is unknown to the magistrate, judge, justice, or other issuing authority, the defendant may be designated therein by any name. . . ."

fictitious name. (§ 959, subd. 4; *Ernst v. Municipal Court of Los Angeles* (1980) 104 Cal.App.3d 710, 718.)[11]

However, the constitution and statutory scheme require that "a 'John Doe' warrant . . . describe the person to be seized with reasonable particularity." (*People v. Montoya, supra,* 255 Cal.App.2d at p. 142.) A fictitious name is the same as a John Doe name and is insufficient to identify anyone let alone with particularity. Thus, the California Constitution, article I, section 13, provides that "a warrant may not issue, except on probable cause . . . particularly describing the . . . persons and things to be seized." The Fourth Amendment to the United States Constitution contains a similar particularity requirement. (*West v. Cabell, supra,* 153 U.S. 78 [38 L.Ed. 643]; *Powe v. City of Chicago* (7th Circ. 1981) 664 F.2d 639.) "If a fictitious name is used the warrant should also contain sufficient descriptive material to indicate with reasonable particularity the identification of the person whose arrest is ordered [Citation]." (*People v. Montoya, supra,* 255 Cal.App.2d at pp. 142-143, relying on *West v. Cabell, supra,* 153 U.S. 78 [38 L.Ed. 643] and Cal. Const., art. I, § 13.)

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[11] Section 959 states in pertinent part, that "[t]he accusatory pleading is sufficient if it can be understood therefrom: [¶] . . . 4. That the defendant is named, or if his name is unknown, that he is described by a fictitious name, with a statement that his true name is to the grand jury, district attorney, or complainant, as the case may be, unknown."

This authority is embodied in the requirements of section 813, that the magistrate shall issue an arrest warrant only *if* "a [felony] complaint [has been] filed with a magistrate [and] the magistrate is satisfied from the complaint that the offense . . . has been committed and that there is *reasonable ground* to believe that the defendant has committed it . . . ." (§ 813, subd. (a); italics added.)[12] This procedure guarantees that a neutral judicial officer or body makes a finding of probable cause within the period of limitations. (*People v. Angel* (1999) 70 Cal.App.4th 1141, 1146.)

The length of the period of limitations is a matter for the Legislature's determination and it "could, if it wished, remove the statute of limitations entirely for child sexual abuse offenses, or for any other offense, provided only that this removal applied to future offenses or to offenses which were not time-barred when the removal was enacted." (*People v. Vasquez* (2004) 118 Cal.App.4th 501, 505.)

Thus, the period of limitations is strictly statutory. Nevertheless, because section 804, read together with section 813, incorporates constitutional principles, we turn for guidance to the cases construing the Fourth Amendment particularity requirement.

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[12] The "reasonable certainty" standard is similar to the requirement of section 813, subdivision (a), that "there is *reasonable ground* to believe that the defendant" committed the offense described in the complaint. (Italics added.)

The purpose of the constitutional particularity requirement is to avoid general warrants by which anyone may be arrested (*Cabell v. West, supra*, 153 U.S. at p. 86 [38 L.Ed. at p. 645]; *In re Application of Schaefer* (1933) 134 Cal.App. 498, 499-500) in order to ensure "'nothing is left to the discretion of the officer executing the warrant.'" (*United States v. Hillyard* (9th Cir. 1982) 677 F.2d 1336, 1339.)

It is therefore well established that an arrest warrant, which merely identifies a defendant *solely* by use of a fictitious name is void. The warrant must "truly name" the person to be arrested or "describe him sufficiently to identify him." (*West v. Cabell, supra,* 153 U.S. at p. 85 [38 L.Ed. at p. 644; *In re Application of Schaefer, supra,* 134 Cal.App. at p. 499.) The test is whether the warrant provides sufficient information to identify the defendant with "reasonable certainty. [Citations.] This may be done by stating his occupation, his personal appearance, peculiarities, place of residence or other means of identification [Citation]." (*People v. Montoya, supra,* 255 Cal.App.2d at p. 142.) The particularity requirement does not however, demand complete precision. (*People v. Amador* (2000) 24 Cal.4th 387, 392.)

Applying these principles, we find an arrest warrant, which describes the person to be arrested by his or her DNA profile, more than satisfies the reasonable certainty standard because DNA is the most accurate and reliable means of identifying an individual presently available to law enforcement.

In passing the DNA and Forensic Identification Data Base and Data Bank Act of 1998 (DNA Act or Act) (§ 295 et seq.), the California Legislature found that "(DNA) and forensic identification analysis is a useful law enforcement tool for identifying and prosecuting sexual and violent offenders." (Former § 295, subd. (b)(1) [Stats. 1998, ch. 696, § 2]; see also *People v. King* (2000) 82 Cal.App.4th 1363, 1378 [finding there is no question but that DNA testing provides an efficient means of identification].) Similar findings have been made by all other states and the federal government, which have enacted DNA data base and data bank acts. (*Alfaro v. Terhune* (2002) 98 Cal.App.4th 492, 505; see Annot., Validity, Construction, and Operation of State DNA Database Statutes (2000) 76 A.L.R.5th 239, 252; and see 42 U.S.C. §§ 14131-14134.)

Defendant argues however, that a DNA profile is merely "information about the genetic makeup of a human being; [and] is not an identification of that person" that would enable an officer in the field to execute the warrant based solely on the DNA profile stated in the warrant. We see no legal merit in this argument.

Neither section 804, subdivision (d), section 813, nor the state and federal constitutions specify or limit the *manner* or *criteria* for particularly describing a person. All that is required is "reasonable certainty" that the person may be identified. Indeed, defendant concedes that while a DNA profile "may be probative of identity," it is not infallible. But

infallibility is not required for issuance of a warrant (*People v. Amador, supra,* 24 Cal.4th at p. 392) or a charging document. (*People v. Erving* (1961) 189 Cal.App.2d 283, 290 [two descriptive errors in the indictment do not deprive the court of jurisdiction].)

Nevertheless, in light of the astronomical rarity of an individual's DNA profile in the general population (*People v. Johnson* (2006) 139 Cal.App.4th 1135, 1153) and of defendant's particular 13-locus profile, it cannot be disputed that DNA analysis is as close to an infallible measure of identity as science can presently obtain. Given the mobility of our society, the availability of plastic surgery and other medical procedures and devices that may alter physical characteristics, and the growing problem of identity theft, unlike a person's DNA profile, all other identifying criteria are subject to theft, change, or alteration.

Defendant also contends that for Fourth Amendment purposes, extrinsic evidence cannot be used to make up the deficiencies of an insufficient arrest warrant. This argument is based on the fact an officer in the field cannot execute the warrant by visually identifying a suspect with his DNA profile in hand and must resort to information outside of the warrant.

We disagree. Defendant confuses the requirements for issuance of a warrant with those necessary to execute one. Extrinsic evidence is always necessary to locate the suspect and confirm his identity in order to execute an arrest warrant.

(*United States v. John Doe* (3d Cir. 1983) 703 F.2d 745, 748 [“No matter how detailed the written description on a warrant is, extrinsic information will be necessary to execute it”].)

Moreover, at least two courts in other jurisdictions have held that issuance of a John Doe/DNA arrest warrant is sufficient to toll the statute of limitations. In *State of Wisconsin v. Dabney* (2003) 264 Wis.2d 843 [663 N.W.2d 366] (*Dabney*), the court ruled that the DNA profile satisfied the reasonable certainty requirement for an arrest warrant in a case charging a sexual assault where the assailant was unknown to the victim and a DNA profile was subsequently developed from semen left by the assailant. Three days before the six-year statute of limitations was set to expire, the state filed a complaint charging “John Doe #12” with sexual assault. The caption of the complaint included the defendant’s DNA profile. The same day, an arrest warrant for John Doe #12 was also issued. (663 N.W.2d at pp. 369-370.)

Under Wisconsin law, as in California, the statute of limitations is satisfied when the prosecution is commenced within the period of limitations. An action may be commenced by issuing an arrest warrant, which must identify the person to be arrested with “reasonable certainty.” (*Dabney, supra,* 663 N.W.2d at pp. 370-371.) The Wisconsin court concluded, as have we, that “for the purposes of identifying ‘a particular person’ as the defendant, a DNA profile is arguably the most discrete, exclusive means of personal identification possible. ‘A genetic

code describes a person with far greater precision than a physical description or a name.'" (*Id*. at p. 372; see also *State v. Danley* (2006) 138 Ohio Misc.2d 1, 5-6 [853 N.E.2d 1224, 1227].)

The court in *Dabney, supra,* 264 Wis.2d 843 [663 N.W.2d 366], also rejected the argument raised by defendant herein that a DNA profile fails to sufficiently identify the accused because a field officer cannot visually identify the suspect from a DNA profile. Although the court agreed that a police officer with a John Doe/DNA arrest warrant could not walk up to an individual and arrest him solely on the basis of his genetic profile, the court concluded that having to take the extra step of identifying the defendant "is not unique to a warrant based on DNA. No matter how well a warrant describes the individual, extrinsic information is commonly needed to execute it. If a name is given, information to link the name to the physical person must be acquired." (663 N.W.2d at p. 372.)

For these reasons, we hold that an arrest warrant, which describes the person to be arrested by his DNA profile, satisfies the statute of limitations.

C. Due Process

Defendant also contends that using a John Doe/DNA arrest warrant to commence a prosecution circumvents the statute of limitations and therefore violates his rights under the due process clauses of the state and federal constitutions.

Respondent argues this claim has no merit because defendant has failed to establish prejudice. We agree with respondent.

The statute of limitations protects criminal defendants during the prearrest and preaccusation stages (*United States v. Marion* (1971) 404 U.S. 307, 322-323 [30 L.Ed.2d 468, 479-480]) while due process protects criminal defendants *after* the statute of limitations has expired and before the right to a speedy trial has attached, i.e., before the defendant is arrested or a complaint is filed. (*People v. Martinez* (2000) 22 Cal.4th 750, 765, 767; *People v. Catlin* (2001) 26 Cal.4th 81, 107.)

To establish a due process violation, defendant must establish (1) the absence of any legitimate reason for delay and (2) prejudice. (*People v. Archerd* (1970) 3 Cal.3d 615, 640.) Prejudice may be shown by the loss of a material witness or other missing evidence or by a witness's fading memory caused by the lapse of time. (*Ibid*.)

Defendant has failed to establish prejudice for the three week delay between August 25, 2000, when the statute of limitations was set to expire and September 15, 2000, the day he was arrested. Instead, he poses a number of hypothetical "what if" questions based upon the possibility that an individual with a DNA profile matching the one specified on the warrant may not be found for decades, impairing his ability to establish a defense. We need not address that possibility because it is not tendered by this case. Here, law enforcement officials promptly processed the crime scene the day of the crime, collected

evidence, took a vaginal swab from the victim, and developed the assailant's DNA from that evidence within the period of limitations. Since defendant was arrested only three weeks after the period of limitations expired and his sole defense was to contest the reliability of the statistical probability evidence, his ability to defend against the charges was not impaired by the passage of time.

Accordingly, we reject his due process claim.

II.

Involuntary Collection of Defendant's Blood

Defendant claims the DNA evidence must be suppressed because it is the fruit of an unconstitutional collection of his blood. He raises both a facial and an as-applied challenge. We shall address each claim separately. Before doing so however, we first set forth an over-view of the governing statutory scheme.

A. Overview of the DNA Act

The DNA Act was added by Statutes 1998, chapter 696, section 2 and became effective January 1, 1999. (Cal. Const., art. IV, § 8, subd. (c)(1).) The Act has been amended several times since its original enactment. (Amended by Stats. 2002, ch. 916, § 1; Initiative Measure (Prop. 69, § III.1, approved Nov. 2, 2004, eff. Nov. 3, 2004); Stats. 2006, ch. 69, § 28, eff. July 12, 2006.) However, unless otherwise pertinent, we shall discuss and apply the law as originally enacted, which was

the law in effect at the time defendant's blood was drawn and analyzed.

The Act requires, inter alia, that any person who is convicted of a specified crime, referred to as a qualifying offense, must "provide two specimens of blood, a saliva sample, right thumbprints, and a full palm print impression of each hand for law enforcement identification analysis." (Former § 296, subd. (a)(1); Stats. 1998, ch. 696, § 2.) The DOJ, through its DNA Laboratory, is responsible for implementing the Act and managing and administering the state's DNA data base and data bank identification program. (Former § 295, subds. (d) and (e); Stats. 1998, ch. 696, § 2.) The Act requires the DOJ to (1) perform DNA analysis and any other forensic identification analysis of those items, (2) serve as a repository for those biological samples and (3) "store, compile, correlate, compare, maintain, and use DNA and forensic identification profiles and records . . . ." (Former § 295.1, subds. (a), (c); Stats. 1998, ch. 696, § 2.)

The responsibility for collecting blood and other biological samples and impressions from qualified offenders lies with state and local law enforcement and correctional officials (Former §§ 295, subd. (f)(1); 295.1., subds. (a) and (d); 296.1, subd. (a); Stats. 1998, ch. 696, § 2), a task that must be done "as soon as administratively practicable" regardless of the place of confinement. (Former § 296, subd. (b); Stats. 1998, ch. 696, § 2.)

The purpose of the data bank "is to assist federal, state, and local criminal justice and law enforcement agencies within and outside California in the expeditious detection and prosecution of individuals responsible for sex offenses and other violent crimes, the exclusion of suspects who are being investigated for these crimes, and the identification of missing and unidentified persons, particularly abducted children." (Former § 295, subd. (c); Stats. 1998, ch. 696, § 2.)

B. Facial Challenge

Defendant first contends the involuntary collection of his blood pursuant to the Act violated his state and federal constitutional rights against unreasonable searches and seizures. He recognizes that several appellate courts, including this court, have upheld the Act against this very claim but raises it to preserve future review by the California and United States Supreme Courts. Respondent argues this claim has no merit. We agree with respondent.

Rejecting the same claim in *Alfaro v. Terhune, supra,* 98 Cal.App.4th 492 at page 505, this court recognized that DNA data base and data bank acts have been enacted by the federal government and in all 50 states and that various constitutional challenges to these acts have been consistently rejected. Likewise, a similar challenge to its predecessor,[13] former

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[13] Former section 290.2 required certain sex offenders to supply blood and saliva specimens and other biological samples

section 290.2, was also rejected. (See *People v. King, supra,* 82 Cal.App.4th 1363.)

We concluded that "[i]n view of the thoroughness with which constitutional challenges to DNA data base and data bank acts have been discussed, there is little we would venture to add. We agree with existing authorities that (1) nonconsensual extraction of biological samples for identification purposes does implicate constitutional interests; (2) those convicted of serious crimes have a diminished expectation of privacy and the intrusions authorized by the Act are minimal; and (3) the Act serves compelling governmental interests. Not the least of the governmental interests served by the Act is 'the overwhelming public interest in prosecuting crimes *accurately*.' [Citation.] A minimally intrusive methodology that can serve to avoid erroneous convictions and to bring to light and rectify erroneous convictions that have occurred manifestly serves a compelling public interest. We agree with the decisional authorities that have gone before and conclude that the balance must be struck in favor of the validity of the Act." (*Alfaro v. Terhune, supra*, 98 Cal.App.4th at pp. 505-506; see also *People v. Adams* (2004) 115 Cal.App.4th 243, 255-259.)

Because defendant has failed to provide us with a reason to reconsider our decision in *Alfaro*, we reject his claim.

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prior to being released from custody. (Stats. 1993-1994, 1st Ex. Sess., ch. 42, § 1, p. 8735.)

C. As-Applied Challenge

County and state officials collected and analyzed a sample of defendant's blood pursuant to the Act based upon two offenses officials erroneously concluded were qualifying offenses. Defendant contends this unauthorized collection and analysis of his blood violated his Fourth Amendment rights. Respondent counters that the evidence is admissible because defendant's blood was properly collected pursuant to a valid parole condition and consent, the exclusionary rule is inapplicable under the circumstances of this case, and the evidence is admissible under the inevitable discovery doctrine.

We agree with respondent that the exclusionary rule is inapplicable to suppress the evidence in this case. Because we so hold, we do not address the parties' other theories.

1. Standard of Review

The trial court's ruling on a motion to suppress evidence under section 1538.5 involves mixed questions of fact and law. (*People v. Williams* (1988) 45 Cal.3d 1268, 1301.) On appeal from a denial of a motion to suppress, we review the evidence in the light most favorable to the trial court's determination and uphold any factual findings, express or implied, that are supported by substantial evidence. We independently assess questions of law (*ibid.*) and evidence may be excluded under section 1538.5 only if exclusion is mandated by the federal Constitution. (*People v. Banks* (1993) 6 Cal.4th 926, 934; *In re Lance W.* (1985) 37 Cal.3d 873, 896.)

2. Statutory and Factual Background

Former section 296, subdivision (a)(1) describes the offenders subject to collection of specimens, samples, and print impressions: "[a]ny person who is convicted of, or pleads guilty or no contest to, any of the following crimes, . . . regardless of sentence imposed or disposition rendered . . . ." (Stats. 1998, ch. 696, § 2.) Among the listed offenses is felony spousal abuse (§ 273.5) and felony assault (§ 245). (§ 296, subd. (a)(1)(D) and (F).) Also subject to the collection requirements is "[a]ny person . . . who is *convicted* of a felony offense of assault or battery in violation of Section . . . 245 . . . , and who is committed to . . . any institution under the jurisdiction of the Department of the Youth Authority where he or she was confined . . . ." (§ 296, subd. (a)(2), italics added.) A juvenile adjudication is not a conviction. (Welf. & Inst. Code, § 203; *In re Bernardino S.* (1992) 4 Cal.App.4th 613, 618.)

Turning to defendant's relevant criminal history, his rap sheet, which was introduced into evidence, shows that in 1985 when he was a juvenile, a petition alleging a violation of felony grand theft was sustained and he was ordered to participate in a juvenile work project. In 1994, he was convicted of spousal abuse. Although that offense is punishable as a misdemeanor or a felony (§ 273.5, subd. (a)), defendant was convicted of a misdemeanor. Thus, neither the juvenile

adjudication for grand theft nor the misdemeanor spousal abuse constitute qualifying offenses under section 296.

Defendant's criminal career continued and on December 2, 1998, he was convicted of two misdemeanors and his parole was revoked on a prior conviction for first-degree burglary. He was sentenced to county jail for the misdemeanors and returned to custody for seven months on the parole revocation. He served time for the misdemeanors and the revocation at Rio Consumes Correctional Center (RCCC), a county facility that housed approximately 1,700 inmates.

On January 1, 1999, while defendant was at RCCC, the DNA Act went into effect. Bill Phillips, Director of the DOJ crime laboratory's Bureau of Forensic Services and chief toxicologist for DOJ, was given full responsibility for implementing the new data bank law. To that end, he worked with a deputy attorney general and began training law enforcement personnel on compliance procedures for collecting the required biological specimens and identifying qualifying offenses. Personnel were advised to use CLETS, DOJ's automated criminal history system, to determine whether the prisoner had a qualifying offense. Phillips also developed an informational bulletin that delineated the qualifying offenses for juveniles although confusion remained as to whether samples could be collected for juvenile adjudications. In Phillips' view, the DNA Act was a "very difficult law to understand . . . ." Moreover, because the Act greatly expanded the number of individuals subject to

DNA analysis[14] resulting in 60,000 samples in the first year, it was very complicated to administer in the beginning.

In February 1999, a meeting was held for RCCC officials to inform them of their collection obligations under the new Act. Deputy Sheriff Lawrence Ortiz, Jr. was assigned to assist in that task. He held a meeting to train records officers on how to identify qualified offenders. For the staff who did not attend that meeting, he provided training and information on an as-needed basis. The staff was advised that only certain felony offenses constituted qualifying offenses and an offense in a prisoner's criminal history was designated as a felony or a misdemeanor. However, there was a good deal of confusion about what constituted a qualifying offense particularly with respect to juvenile adjudications. As a result, Ortiz advised staff to err on the side of caution and treat adjudications as non-qualifying offenses if they resulted in a juvenile hall disposition only.

Because of the enormity and complexity of the task, Ortiz felt implementing the new program was beyond him to some degree. In the beginning, it was chaotic and he and his staff were all under a great deal of pressure to quickly identify the offenders and complete the collection kits provided by the DOJ.

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[14] Compare former section 290.2 (Stats. 1993-1994, 1st Ex. Sess., ch. 42, § 1, p. 8735) with former section 296 (Stats. 1998, ch. 696, § 2.)

According to the procedures used at RCCC, records personnel first identified which prisoners had a qualifying offense. After a prisoner was identified as a qualified offender subject to collection, a DNA Testing Requirement form was completed that specified the prisoner's qualifying offense. Defendant was identified as a qualified prisoner. His DNA testing form indicated he had been convicted of spousal abuse under section 273.5, but did not specify whether the offense was a felony or a misdemeanor.

A sample of defendant's blood was drawn on March 2, 1999, and delivered to the DOJ laboratory on March 5, 1999. The blood sample was submitted to the DOJ's DNA laboratory's data base section where it underwent a verification process to confirm his convicted offender status.

Subsequently, in June 1999, Phillips stopped all searches of the data base to verify "tens of thousands" of federal profiles after discovering in an unrelated case, that one profiled offender had only been convicted of a misdemeanor violation of section 273.5. Although there was no statutory requirement for DOJ to conduct this check, it did so in an "attempt to do the best we could to follow the statute."

The following month, Kim Meade, a DOJ employee, caught the mistaken qualifying offense on defendant's testing form. When she noticed his conviction for spousal abuse (§ 273.5) was only a misdemeanor, she looked for another possible qualifying offense on his rap sheet and saw an assault with a deadly

weapon. (§ 245.) The rap sheet indicated the offense resulted in a juvenile adjudication with a disposition to juvenile hall. Meade had not been trained that juvenile adjudications did not constitute qualifying offenses under the Act and mistakenly concluded the offense was a qualifying felony.

Meade also erred in concluding the adjudication was for felony assault (§ 245) rather than for felony grand theft, a non-qualifying felony. This error was made in part because it involved a juvenile adjudication. As a result, the record was sealed and the rap sheet did not display the adjudicated disposition. Meade could only see the top of the rap sheet "which indicates 211 and 245 to Juvenile Hall", so she mistakenly concluded defendant had been convicted of felony assault (§ 245) and qualified his blood sample on July 26th based upon that offense. (Former § 296, subd. (a)(1)(F); Stats. 1998, ch. 696, § 2.)

Defendant moved to suppress all DNA evidence resulting from that blood sample. The trial court denied his motion, finding defendant was subject to a parole search and in the alternative, that the evidence is admissible under the good faith exception doctrine. (*United States v. Leon* (1984) 468 U.S. 897 [82 L.Ed.2d 677] (*Leon*).) As to the latter theory, the court found (1) the motivation for collecting defendant's blood was a good faith belief he was a qualified offender and the personnel who made the mistakes acted in a responsible and conscientious manner in an effort to keep their errors to a very low level,

(2) the mistake was made because staff was under pressure to immediately implement a newly enacted law that was complex and confusing, and (3) the physical intrusion was minimal because defendant was already in custody.

3. Analysis

It is undisputed that at the time defendant's blood was drawn and later analyzed, he had not been convicted of any of the qualifying offenses. Thus, the DNA Act did not authorize collection or analysis of his blood at that time. Moreover, the nonconsensual extraction of blood implicates the rights protected by the Fourth Amendment of the United States Constitution. (*Schmerber v. California* (1966) 384 U.S. 757, 767 [16 L.Ed.2d 908, 918].) However, the privacy rights of those who are incarcerated are significantly reduced (*Hudson v. Palmer* (1984) 468 U.S. 517, 530 [82 L.Ed.2d 393, 405]) with respect to their identities (*People v. King, supra,* 82 Cal.App.4th at pp. 1374-1375) and their bodies (*Bell v. Wolfish* (1979) 441 U.S. 520, 558 [60 L.Ed.2d 447, 481]) and, as discussed in Part B, collection of a prisoner's blood under the DNA Act does not per se violate a prisoner's Fourth Amendment rights. (*Alfaro v. Terhune, supra*, 98 Cal.App.4th at pp. 505-506; *People v. Adams, supra,* 115 Cal.App.4th at pp. 255-259.)

We need not decide whether the unauthorized collection of defendant's blood under the circumstances of this case violated his Fourth Amendment rights because suppression of the DNA evidence is not required. The purpose of the Fourth Amendment's

prohibition against unreasonable searches and seizures is to "'"safeguard the privacy and security of individuals against *arbitrary* invasions by government officials."'" (*People v. Reyes* (1998) 19 Cal.4th 743, 750.) Because the invasion is accomplished by the illegal search or seizure, exclusion of the evidence does not cure the violation and the government's use of evidence obtained as a result of that violation does not itself violate the Constitution. (*Pennsylvania Board of Probation v. Scott* (1998) 524 U.S. 357, 362 [141 L.Ed.2d 344, 351] (*Scott*).)

Rather, the exclusionary rule is a judicially created remedy designed to safeguard Fourth Amendment rights by deterring illegal searches and seizures. It is not a personal constitutional right of the party aggrieved. (*United States v. Calandra* (1974) 414 U.S. 338, 348 [38 L.Ed.2d 561, 571]; *Leon, supra*, 468 U.S. at p. 906 [82 L.Ed.2d at pp. 687-688].) Thus, the rule does not proscribe admission of illegally seized evidence in all proceedings or against all persons. (*Scott, supra,* 524 U.S. at p. 363 [141 L.Ed.2d at p. 351].) As the Supreme Court recently cautioned, "[s]uppression of evidence . . . has always been our last resort, not our first impulse." (*Hudson v. Michigan* (2006) __U.S.__ [165 L.Ed.2d 56, 64].)

The exclusionary rule is "applicable only where its deterrence benefits outweigh its 'substantial social costs.'" (*Scott, supra*, 524 U.S. at p. 363 [141 L.Ed.2d at p. 351].) In taking that measure, we first consider the value of deterrence, which is dependent upon the strength of the incentive to commit

the forbidden act. (*Hudson v. Michigan, supra*,___ U.S. at p.___ [165 L.Ed.2d at p. 67]; *Leon, supra*, 468 U.S. at p. 906 [82 L.Ed.2d at pp. 687-688].) The deterrent value is then weighed against the social costs of excluding reliable, probative evidence. Those costs include compromising the truth, finding process and allowing many guilty defendants who would otherwise be incarcerated to escape the consequences of their actions. (*Scott, supra,* 524 U.S. at p. 364 [141 L.Ed.2d at p. 352]; *Hudson v. Michigan, supra,* __U.S. at p. __ [165 L.Ed.2d at p. 64].) The court has been cautious when expanding the rule and has "'repeatedly emphasized that the rule's "costly toll" . . . presents a high obstacle for those urging [its] application.' [Citation]." (*Ibid.*)

The deterrence value of suppression is said to be outweighed when law enforcement officers have acted in good faith, their transgressions were minor (*Leon, supra*, 468 U.S. at pp. 907-908 [82 L.Ed.2d at pp. 688-689]), or the constitutional interests that were violated are not served by suppression of the evidence. (*Hudson v. Michigan, supra,* ___ U.S. at p. 165 L.Ed.2d at p. 65][exclusionary rule inapplicable where knock-notice requirement violated]; *Scott, supra*, 524 U.S. at p. 364 [141 L.Ed.2d at p. 352][exclusionary rule inapplicable in parole revocation hearings].)

Here, the deterrence value of suppressing the evidence is nil. First, there was no egregious police misconduct involving willful malfeasance. To the contrary, as the trial court found,

state and local officials were attempting to act in a responsible and conscientious manner in an effort to implement the mandates of a complex law while carrying out the daunting task of collecting and analyzing thousands of biological samples "as soon as administratively practicable . . . ." (Former § 296, subd. (b); Stats. 1998, ch. 696, § 2.)

Moreover, the definition of a qualifying offense has been expanded and simplified, thereby reducing the possibility of similar mistakes in the future. Effective November 3, 2004, the voters adopted Proposition 69, which expanded the definition of a qualifying offense to include *any felony*, whether committed by a juvenile or an adult and whether suffered by conviction or juvenile adjudication. (§ 296, subd. (a)(1), amended by Initiative Measure; Prop. 69, III.I.) Because the broad scope of this amendment all but eliminates the likelihood that biological specimens will be mistakenly collected or analyzed, no deterrent effect would be achieved by excluding evidence obtained from a sample mistakenly collected under an earlier version of the Act when the same search would be lawful under current law.

The deterrent value of suppression is also diminished by federal law, which sanctions noncompliance with federal standards for CODIS, the federal data bank that includes information on DNA profiles maintained by federal, state, and local criminal justice agencies. (42 U.S.C. § 14132(b)(3).) State access to CODIS is conditioned on prompt expungement from

the index of non-qualifying samples (42 U.S.C. § 14132(d)(2)(A)) and a person who knowingly discloses, obtains or uses an unauthorized sample is subject to criminal penalties. (42 U.S.C. § 14135e(c).)[15] Annual audit procedures further ensure compliance with CODIS requirements by participating laboratories. (42 U.S.C. § 14132(b)(2)(B).)

Last, suppression of the evidence will not serve the statutory purpose of former section 296. As originally enacted, the scope of the qualifying offenses was limited to specified violent felonies. (Former § 296, subd. (a); Stats. 1998, ch. 696, § 2.) The purpose of this limitation was to ease the administrative burden on those who were responsible for implementing the Act, not to benefit individual offenders. Thus, former section 297, subdivision (e) states, "[t]he limitation on the types of offenses set forth in subdivision (a) of Section 296 as subject to the collection and testing procedures of this chapter is for the purpose of facilitating the administration of this chapter. The detention, arrest,

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[15] The Director of the California DNA Data Bank Laboratory testified that in order for law enforcement agencies in a state to participate in CODIS and have access to that data base, the state must sign a memorandum of agreement and a designated official must be appointed to administer the state database. As Director, Kenneth Konzak is responsible for ensuring that all participants use correct procedures and comply with CODIS requirements, and is required to remove a laboratory from the system if its data is not of sufficient quality or otherwise fails to meet CODIS standards. Failure to comply with CODIS standards may in extreme cases result in loss of the right to participate in the national index.

wardship, or conviction of a person based upon a data bank match or data base information is not invalidated if it is later determined that the specimens, samples, or print impressions were obtained or placed in a data bank or data base by mistake." (Stats. 1998, ch. 696, § 2.)

Consistent with this Legislative pronouncement, Kenneth Konzak, Director of the California DNA Data Bank Laboratory, testified that the limitation on the type of offenses subject to collection was to accommodate the DOJ's physical limitations in processing samples. That is because in 1999, DOJ's laboratory was not capable of analyzing the greater number of samples that would have come from an all-felon data base law. However, once the new program was established and operational, the Legislature broadened the list of qualifying offenses. (See former § 296, subd. (a)(1)(J); Stats. 2001, ch. 906, § 1.)

In sum, we find the officials who were responsible for mistakenly collecting defendant's blood did so as a good faith effort to comply with the new law, there are no incentives to collect blood samples beyond the scope of the statute, and the purpose and interests protected by the Act will not be served by suppression. Suppressing the evidence would achieve no deterrent value under these circumstances although it would have significant social costs. (*Hudson v. Michigan, supra*, ___ U.S. at p. ____ [165 L.Ed.2d at p. 65].) Accordingly, we find the trial court properly denied defendant's motion to suppress the evidence.

III.
Evidence of Statistical Methodology For Determining DNA Probability Was Properly Admitted Under *Kelly/Frye*

Statistical evidence was introduced at trial to explain the rarity of the DNA match between the evidentiary sample and defendant's blood sample taken upon his arrest. The statistical calculation was arrived at by applying the modified product rule. (MPR.)

Defendant contends the DNA evidence was erroneously admitted under *Kelly/Frye,*[16] because there is no generally accepted statistical method for calculating the probability of a DNA match when a suspect is identified by means of a "cold hit."[17] A cold hit is a match obtained by comparing the DNA profile derived from an evidentiary sample with the DNA profile of an individual included in an offender data base. Defendant asserts there is a deep division among the experts on how to calculate the chance that a cold hit match is coincidental. Respondent contends the MPR is admissible under *Kelly/Frye* because it is generally accepted in the relevant scientific

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[16] *People v. Kelly* (1976) 17 Cal.3d 24 (*Kelly*) and *Frye v. United States* (D.C.Cir. 1923) 293 F. 1013, 1014 (*Frye*).

[17] This issue is presently before the California Supreme Court in *People v. Nelson* (2006) 142 Cal.App.4th 696, review granted November 15, 2006, a Sacramento case, which incorporated by judicial notice the record in this case and was decided adversely to the defendant.

community to calculate the statistical frequency of a match between two DNA profiles.

We agree with respondent and hold that the evidence of the MPR and its application in this case were properly admitted.

A. General Legal Principles

The *Kelly/Frye* test for determining the admissibility of evidence based upon a new scientific technique requires the proponent of the evidence to establish (1) the method is reliable (2) the witness furnishing the testimony is qualified, and (3) the correct scientific procedures were used in the particular case at hand. (*Kelly, supra,* 17 Cal.4th at p. 30.)

On a first prong *Kelly/Frye* challenge, reliability is established by showing the technique is "'sufficiently established to have gained general acceptance in the particular field in which it belongs.'" (*Kelly, supra*, 17 Cal.3d at p. 30, italics omitted; *Frye, supra,* 293 F. at p. 1014.) The test does not require unanimity of views in the scientific community. "'"General acceptance" under *Kelly* means a consensus drawn from a typical cross-section of the relevant, qualified scientific community.' [Citation.]" (*People v. Soto* (1999) 21 Cal.4th 512, 519.)

The resolution of each of the other *Kelly-Frye* prongs is reviewed under the abuse of discretion standard, giving great deference to the determinations of the trial court. (*People v. Venegas* (1998) 18 Cal.4th 47, 91.)

B. Overview of DNA Analysis

Almost all cells in the human body contain DNA that underlies each person's genetic makeup. (*People v. Soto, supra,* 21 Cal.4th at p. 519.) A person's individual genetic traits are determined by the sequence of base pairs of certain chemical components in his or her DNA molecules and except for identical twins, no two human beings have identical sequences of all base pairs. (*Id.* at p. 520.)

In most portions of DNA, the sequence of base pairs that are responsible for shared human traits is the same for everyone. In other regions however, the sequence of base pairs varies from person to person, resulting in individual traits. (*People v. Barney* (1992) 8 Cal.App.4th 798, 805-806.) In addition to the DNA sequences that determine a person's genetic traits, human DNA also includes sequences that serve no known genetic function and are more likely to be variable or polymorphic. (*People v. Soto, supra*, 21 Cal.4th at p. 520.) Each variation in a base-pair sequence is called an allele. These variations in the non-functional base-pair sequences at the polymorphic DNA locations (loci) enable forensic scientists to identify individuals. (*Id*. at p. 521.)

DNA analysis involves a three-step process. First, the characteristics of a suspect's genetic structure are identified. This structure is referred to as the DNA profile. Second, the profile is compared with the DNA profile developed from a

biological sample taken from a crime scene.[18] If the two profiles match, they are subjected to a third step, which is a statistical analysis to determine the frequency with which the matching profile occurs in the general population. (*People v. Barney, supra,* 8 Cal.App.4th at p. 805.)

Defendant's challenge is to the third step of the DNA analysis, the statistical calculation performed to determine the probability that a person chosen at random from the relevant population would have a DNA profile matching that of the evidentiary sample. That probability is usually expressed as a fraction -- i.e., the probability that one person out of 100,000 people would match the DNA profile of the evidentiary sample. (*People v. Soto, supra*, 21 Cal.4th at p. 523.)

To determine the statistical probability, scientists calculate how frequently each pair of bands produced by one probe is found in a target population. (*Barney, supra*, 8 Cal.App.4th at p. 809.) The calculation is made by using one or more population data bases containing measurements of the DNA fragments of several hundred persons at each of the identified loci. The samples come from measurements derived from varied sources including blood banks, hospitals, clinics, genetics

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[18] While a nonmatch of alleles between the DNA profile of a crime scene sample and that of a suspect conclusively eliminates the suspect as the source of the crime scene sample, each match between alleles from the suspect raises the possibility that he is the perpetrator. (*People v. Soto, supra*, 21 Cal.4th at pp. 520-521.)

laboratories, and law enforcement personnel. (*People v. Soto, supra*, 21 Cal.4th at p. 523.)

The various methods for developing and comparing two DNA profiles have been approved as generally accepted under *Kelly/Frye*. (*People v. Axell* (1991) 235 Cal.App.3d 836, 860; *People v. Hill* (2001) 89 Cal.App.4th 48, 57-58.) Likewise, there is general acceptance in the scientific community for using the product rule to determine the statistical probability of a DNA match. (*People v. Venegas, supra,* 18 Cal.4th at pp. 84-90 [MPR]; *People v. Soto, supra*, 21 Cal.4th at p. 541 [unmodified product rule].)[19]

The MPR is applied first to determine the allelic frequency at each locus, and then to determine the alleles' combined frequency at all loci. (*People v. Soto, supra*, 21 Cal.4th at p. 525.) "The 'frequency' of one or more alleles is the statistical probability that it or they will be found in the DNA of a randomly selected member of the population from which the database is derived." (*Id.* at p. 525, fn. 15.)

With these principles in mind, we turn to the evidence presented at the hearing and at trial.

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[19] The MPR, which is used by all forensic laboratories, makes a reasonable adjustment for population substructure. The modification acts to select random match probability figures most favorable to the accused from the scientifically based range of probabilities. (*Soto, supra*, 21 Cal.4th at p. 515.)

C. Factual and Procedural Background

Defendant filed a pretrial motion to exclude all DNA evidence. While he conceded that DNA testing methodology passed muster under *Kelly, supra*, 17 Cal.3d 24, he argued that application of the rule to a cold hit match has never been endorsed by an appellate court and is unreliable.

A lengthy evidentiary hearing was conducted at which five expert witnesses testified, three for the prosecution and two for the defense. Dr. Ranajit Chakraborty, Director of the Center for Genome Information at the University of Cincinnati College of Medicine and a renowned expert in human population genetics (see *People v. Soto, supra*, 21 Cal.4th at p. 527, fn. 20) testified that the MPR was used in this case to calculate the statistical frequency of the DNA match between the evidentiary sample and the blood sample taken from defendant.

According to Dr. Chakraborty, forensic laboratories worldwide agree that the random match probability statistic, which is calculated by using the MPR, is the appropriate method for explaining to the jury the rarity of a genetic profile from a crime scene sample matched to the defendant's genetic profile. He found nothing new or novel about using the MPR in cold hit cases. This is because when the rarity of a DNA profile is estimated, the common practice is to calculate the statistical probability based upon the *evidentiary* profile and the question is how rare is that profile. The MPR answers that question by calculating the frequency of the evidentiary profile in the

human population after dividing the population into various racial and ethnic groups. Because the rarity of the evidentiary profile does not change, it does not matter how the matching profile is found, whether by using a database search resulting in a cold hit or by using traditional methods of investigation that lead to a suspect who then provides a biological sample for DNA analysis.

Nor did Dr. Chakraborty see any controversy in the scientific literature over the use of the MPR in cold hit cases. He explained that the reason for the alleged confusion stems from the failure of some scientists to identify the question being asked when discussing statistics for cold hit cases. Two questions may be asked after a database search. The first asks "what is the rarity of the DNA profile . . . [or] what frequency is expected to occur in the [general] population." That question is answered by the MPR, which gives the random match probability. A second question asks "what is the probability of finding such a DNA profile in the database searched." The answer to that question is determined by multiplying the random match probability by the size of the relevant database. The fact different questions produce different answers does not indicate there is a controversy concerning the validity of one of the answers.

Dr. Chakraborty's testimony was confirmed by the three other experts who testified that the common practice is to use the random match probability calculation to determine the rarity

of the evidentiary sample. This practice is used whether or not the suspect was identified by a database search.

The defense experts held the view that the random match probability test should not be used where a cold hit is obtained through a convicted offender database. Dr. Dan Krane, an associate professor of biological science at Wright State University testified that there is a fundamental difference between a cold hit case and an ordinary probable cause case. This is because it is reasonable to assume there would be many related individuals within a convicted offender database and that assumption would be incongruous with the assumptions necessary for calculating random match probability.

Dr. Laurence Mueller, a population geneticist and evolutionary biologist who frequently appears as a defense witness at *Kelly* hearings (see e.g. *People v. Soto*, *supra*, 21 Cal.4th at p. 529), testified there is no consensus among scientists regarding the proper statistics to employ following a cold hit match. Although the MPR directly addresses the factual scenario in a probable cause case, it does not do so in a cold hit case because the cold hit suspect is chosen out of a limited group rather than from a random selection of the general population.[20] Since the statistic calculates the rarity of a

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[20] Dr. Mueller also noted that the chance of finding a match in a cold hit case increases as the group size increases. However, under this theory, a suspect would benefit from a cold

random match, it is inapplicable to determine the frequency of a match based upon a limited database. Dr. Mueller concluded the only relevant question in a cold hit case is how efficient the investigation was and the MPR does not assist in answering that question.[21]

The trial court denied defendant's motion concluding there is general acceptance in the scientific community for using the random match probability test to calculate the rarity of a DNA profile in a cold hit case. The court found that a clear majority of scientists in the field both in numbers, distinction, and qualification, favor the use of that test. The court rejected the views of the two defense experts, finding they are of the old school and their position is not "one of substantial scholarly importance."

D. Analysis

In *People v. Johnson, supra,* 139 Cal.App.4th 1135, the defendant raised the same claim raised by defendant herein. There, as in this case, a cold hit match was used to identify the defendant as a possible suspect. Independent DNA analysis on a new reference sample was conducted subsequent to the cold

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hit match because such matches are found from limited databases that are vastly smaller than the general population.

[21] The purpose of the *Kelly/Frye* test is to ensure the scientific technique is reliable. By contrast, relevancy is a legal question to be determined by the court (Evid. Code, §§ 210 and 350) and as the Supreme Court has found, the statistics for a range of groups is surely relevant. (*People v. Wilson* (2006) 38 Cal.4th 1237, 1245.)

hit and at trial, the prosecution relied on scientifically-accepted DNA analysis to establish defendant's identity as the perpetrator. (*Id*. at p. 1143.) The court rejected the defendant's argument on two grounds; (1) no new methodology is involved when using the product rule in cold hit cases (*id*. at p. 1155) and (2) a cold hit from a DNA database is not subject to the *Kelly/Frye* test of admissibility when used merely as an investigative tool to identify a possible suspect. (*Id*. at p. 1141.)

We agree with the *Johnson* court on both points and conclude defendant has failed to establish that application of the MPR constituted error. First, as the court in *Johnson* concluded and the trial court found below, application of the MPR to a cold hit match satisfies *Kelly/Frye* because the majority of the relevant scientific community, both in numbers, distinction, and qualifications, support the use of the rule. The existence of a few dissenters does not negate the clear consensus of the majority. (*People v. Guerra* (1984) 37 Cal.3d 385, 418; *People v. Hedgecock* (1990) 51 Cal.3d 395, 409.) Indeed, the reason for this consensus is apparent. As Dr. Chakraborty testified, the MPR is applied to the DNA profile of the *evidentiary* sample, not to the DNA profile of the data base entry.

Second, the statistical calculation evidence admitted on the question of guilt was not based upon the cold hit match but rather on a blood sample obtained from defendant upon his arrest. It was from this new blood sample that Jill Spriggs

conducted a full three-step DNA analysis, comparing the DNA profile of the evidentiary sample with the DNA profile from defendant's new blood sample. While evidence of the cold hit match was introduced into evidence, it was offered merely to establish the investigative lead and did not serve as the basis for the statistical probability evidence that was introduced at trial. For these reasons, we reject defendant's claim.

IV.
DNA Statistical Estimates
For a Range of Ethnic and Racial Databases

Defendant contended in his opening brief that the trial court erred when it admitted statistical evidence relating to three major ethnic groups because such evidence lowers the prosecution's burden of proof. In his reply brief, he concedes that *People v. Wilson, supra,* 38 Cal.4th 1237, which was decided after he filed his opening brief, resolves this question against him but asks for a ruling to preserve the question for federal review. As defendant recognizes, we are bound by the decision in *Wilson* (*Auto Equity Sales, Inc. v. Superior Court* (1962) 57 Cal.2d 450, 455) and therefore reject his claim of error.

When determining the significance of a genetic match between crime scene blood and defendant's blood, the MPR discussed in Part III calculates the frequency or odds that a random person from the relevant population would have a similar match.

In *Wilson, supra*, 38 Cal.4th 1237, the court considered whether the frequency of such a match may be calculated using

different racial and ethnic groups. (*Id*. at p. 1239.) The court explained that because the odds of a DNA match vary with different racial and ethnic groups, forensic scientists maintain separate databases for different population groups and separately calculate the odds for each group. The Supreme Court held that "'[w]hen the perpetrator's race is unknown, the frequencies with which the matched profile occurs in various racial groups to which the perpetrator *might* belong are relevant for the purpose of ascertaining the rarity of the profile.'" (*Id*. at p. 1240.)

In the case at bench, the statistical probability of the DNA match was calculated using three different racial or ethnic groups, namely African-American, Caucasian, and Hispanic. This was proper under *Wilson* because the victim was unable to definitively identify the race of her assailant. Although she described him as a black male adult who "sounded black," she told Detective Willover the assailant repeatedly told her he was Mexican or Chicano and while she thought he was black, he could have been either a dark Mexican or a light skinned black man. Accordingly, we find the evidence was properly admitted under *Wilson*.

V.
Imposition of the Upper Term
Under *Blakely* Was Proper

Relying on *Apprendi v. New Jersey* (2000) 530 U.S. 466 [147 L.Ed.2d 435](*Apprendi*), *Blakely, supra,* 542 U.S. 296 [159 L.Ed.2d 403], and *Cunningham v. California* (2007) 549 U.S. __

[166 L.Ed.2d 856](*Cunningham*)], defendant argues that his rights to due process and a jury trial were violated when the trial court imposed the upper term of imprisonment on each count and each enhancement based upon facts not admitted or found by the jury.

Because respondent filed his brief prior to the decision in *Cunningham*, he relies on *People v. Black* (2005) 35 Cal.4th 1238 (*Black I*) as controlling authority. (*Auto Equity Sales, Inc. v. Superior Court, supra,* 57 Cal.2d at p. 455.) He also argues that *Apprendi* and its progeny do not require resentencing because the trial court imposed the upper term based upon defendant's recidivism, a factor not implicated by that line of cases. Respondent does not address the separate question relating to imposition of the upper term of imprisonment on the enhancements.

We hold that the trial court properly imposed the upper term for the five convictions and the enhancements.

A. Procedural Background

Defendant was convicted of five sexual assault offenses punishable by imprisonment in state prison for three, six, or eight years (§§ 264, 288a, subd. (c)(2), 289, subd. (a)(1)) and the jury found true the enhancement allegation that he used a deadly weapon in the commission of each of those offenses. The use of a weapon is punishable by an additional three, four, or five year term. (Former § 12022.3, subd. (a), Stats. 1993, ch. 299, § 2, p. 2047.)

The trial court imposed the upper eight-year term on each count and the upper five-year term for each use enhancement and ordered that each count and each enhancement run consecutively. (Former § 12022.3, subd. (a); Stats. 1993, ch. 299, § 2, p. 2047.)[22]

Before imposing the upper term of imprisonment on each count, the trial court recounted defendant's criminal history and found he had "numerous violations of the law going back to juvenile days. . . . So we have evidence throughout that his crimes are repetitive, his crimes are numerous, and they are of increasing seriousness. And throughout this period of course on many of these crimes he has been on probation and continues to commit crime, and of course he was on parole in '98 when he went back to his activities."

The reason given by the court for imposing the upper term on the use enhancement was the victim's vulnerability and the defendant's pattern of violent conduct which the court found indicated he is a serious danger to society. The court concluded by stating it had found more than adequate aggravating factors to justify imposition of the upper term as to each count and each use enhancement.

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[22] Defendant does not challenge imposition of consecutive sentences.

B. Analysis

Construing the Sixth and Fourteenth Amendments to the United States Constitution, the United States Supreme Court held in *Apprendi, supra,* 530 U.S. 466 [147 L.Ed.2d 435] that "[o]ther than the fact of a *prior conviction*, any fact that increases the penalty for a crime beyond the prescribed statutory maximum must be submitted to a jury, and proved beyond a reasonable doubt." (*Id*. at p. 490 [147 L.Ed.2d at p. 455], italics added.) Under this rule, the "statutory maximum" is the maximum sentence the trial court may impose based solely on the facts reflected in the jury verdict or admitted by the defendant. (*Blakely, supra*, 542 U.S. at p. 303 [159 L.Ed.2d at p. 413.)

In selecting the term of imprisonment, the California Determinate Sentencing Law (DSL) requires the trial court to "order imposition of the middle term, unless there are circumstances in aggravation or mitigation of the crime." (§ 1170, subd. (b).) In *Black I, supra,* 35 Cal.4th 1238, the California Supreme Court held that "the upper term is the 'statutory maximum' and a trial court's imposition of an upper term sentence does not violate a defendant's right to a jury trial under the principles set forth in *Apprendi*, *Blakely*, and *Booker*." (*Id*. at p. 1254.)[23]

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[23] *United States v. Booker* (2005) 543 U.S. 220 [160 L.Ed.2d 621].

The United States Supreme Court recently rejected the holding in *Black I* finding that because an upper term sentence under California's DSL may be imposed *only* when the trial judge finds an aggravating circumstance (see former § 1170, subd. (b))[24] it is the middle term, not the upper term, that is the relevant statutory maximum under *Apprendi* and *Blakely*. (*Cunningham, supra*, 549 U.S. at p. ___ [166 L.Ed.2d at p. 873].) The high court concluded that the DSL violates *Apprendi's* bright-line rule "[b]ecause circumstances in aggravation are found by the judge, not the jury, and need only be established by a preponderance of the evidence, not beyond a reasonable doubt . . . ." (*Ibid*.)

Nevertheless, imposition of the upper term in this case does not implicate *Apprendi* and its progeny because the trial court found defendant had numerous prior convictions, and as stated, the fact of a prior conviction is exempt from the rule in *Apprendi*. (*Apprendi, supra*, 530 U.S. at p. 490 [147 L.Ed.2d at p. 455].)

That finding alone removes this case from the concerns stated in *Apprendi* and *Blakely* because the California Supreme Court has recently held that, "if one aggravating circumstance has been established in accordance with the constitutional requirements set forth in *Blakely*, the defendant is not 'legally

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[24] In response to *Cunningham, supra,* the Legislature amended section 1170, subdivision (b), effective March 30, 2007. (Stats. 2007, ch. 3, § 2.)

entitled' to the middle term sentence, and the upper term sentence is the 'statutory maximum.'" (*People v. Black* (2007) 41 Cal.4th 799, 813, fn. omitted. (*Black II*).) Since defendant's criminal history established at least one aggravating circumstance that independently satisfied Sixth Amendment requirements and rendered him eligible for the upper term, imposition of the upper term did not violate his Sixth Amendment right to jury trial. (*Id*. at pp. 818-820.)

Defendant also challenges the trial court's exercise of discretion by arguing that prior to imposing sentence, the court discussed the underlying facts of the charged offenses, as well as the facts of the uncharged offenses[25] and the offense for which a mistrial was declared, and concluded defendant was a sophisticated serial rapist.

It is true the trial court made these remarks. It is also clear from the record that the trial court recognized it could not punish defendant for crimes for which he was not convicted nor could it sentence him based upon speculation. Because the trial court's stated reasons were sufficient and properly based upon defendant's lengthy criminal history, all other statements

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[25] The prosecution introduced evidence that defendant committed sexual assaults against four other young women during the period between October 20, 1993 and December 7, 1994, and on November 17, 1998, was convicted of prowling in a case involving a 24-year-old.)

made by the court were superfluous and harmless. (*People v. Watson* (1956) 46 Cal.2d 818, 836.)

Nor did imposition of the upper term on the use enhancements violate the proscription of *Apprendi* and *Blakely*. Sentence on the use enhancements was imposed under former section 12022.3, the version in effect when defendant committed the charged offenses. (See Stats. 1993, ch. 299, § 2, p. 2047.) That version states as follows: "For each violation or attempted violation of Section 261, 262, 264.1, 286, 288, 288a, or 289, and in addition to the sentence provided, any person shall receive the following: [¶] (a) *A three-,four-,or five-year enhancement if the person uses a firearm or a deadly weapon in the commission of the violation.* [¶] (b) A one-, two-, or three-year enhancement if the person is armed with a firearm or a deadly weapon. The court shall order the middle term unless there are circumstances in aggravation or mitigation. The court shall state the reasons for its enhancement choice on the record at the time of the sentence."

In sum, under the statute, the trial court has discretion to impose any one of the three stated terms of imprisonment when the defendant is found to have *used* a deadly weapon, as the jury found here. The statute does not specify any presumptive term of imprisonment that sets the relevant statutory maximum within the meaning of *Blakely*. By contrast, when the defendant is found to have been *armed* with a deadly weapon, the trial court's task is similar to that under the DSL. It must impose the

middle term *unless* it finds circumstances in aggravation or mitigation, making the middle term rather than the upper term the relevant statutory maximum. (*Cunningham, supra,* ____ U.S. at p. ____ [166 L.Ed.2d at p. 873].)

Because the trial court imposed the upper term under former section 12202.3, subdivision (a) for the use of a deadly weapon, it had discretion to impose the upper term without having to make any factual findings to support its sentencing choice. Since *Apprendi* and *Blakely* do not prohibit that exercise of discretion, we find no error and reject defendant's claim.

DISPOSITION

The superior court is directed to correct the abstract of judgment to reflect that defendant was convicted of violating Penal Code section 288a, subdivision (c)(2) and to forward a certified copy of the amended abstract to the Department of Corrections and Rehabilitation. In all other respects, the judgment of conviction is affirmed.

BLEASE, Acting P. J.

We concur:

HULL, J.

BUTZ, J.