

**CERTIFIED FOR PUBLICATION**

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT

DIVISION TWO

THE PEOPLE,

Plaintiff and Respondent,

v.

MARK BUZA,

Defendant and Appellant.

A125542

(San Francisco County  
Super. Ct. No. SCN 207818)

The sole issue in this case is the constitutionality of a provision of the DNA and Forensic Identification Data Base and Data Bank Act of 1998, as amended (Pen. Code, § 295 et seq.) (the DNA Act),<sup>1</sup> which requires that a DNA sample be taken from all adults arrested for or charged with any felony offense “immediately following arrest, or during the booking . . . process or as soon as administratively practicable after arrest . . . .” (§§ 296.1, subd. (a)(1)(A), 296, subd. (a)(2)(C).) Appellant claims that the seizure of his DNA at a time when he was entitled to the presumption of innocence, and there had been no judicial determination of probable cause to believe he committed the offense for which he was arrested, violated his Fourth Amendment right to be free from unreasonable searches and seizures. We agree, and therefore reverse the judgment.<sup>2</sup>

---

<sup>1</sup> All statutory references are to the Penal Code unless otherwise indicated.

<sup>2</sup> Appellant additionally claims the statute violates his rights under the due process clause of the Fourteenth Amendment and his right to privacy under article I, section 1, of the California Constitution. In light of our resolution of the issue under the Fourth Amendment, it is not necessary for us to address these additional claims.

## **FACTS AND PROCEEDINGS BELOW**

Shortly after 3 o'clock on the morning of January 21, 2009, San Francisco Police Sergeant Jody Kato saw an orange glow emanating from a parked police car. When he realized the vehicle was on fire he saw a man, later identified as appellant, pop up from behind the vehicle and run into a nearby wooded area holding something in his hand. When another officer called out for him to surrender, appellant stepped out of the woods with his hands up. A search of the wooded area produced a road flare and a bottle containing a mixture of oil and gasoline. Matches were found in appellant's pocket and a container of oil was found in his backpack. A fire department investigator concluded that all four tires of the patrol car had been damaged by fire, and traces of polystyrene, gasoline residue and/or medium weight oil were found on two of the tires.

Several hours after his arrest, while he was confined in county jail and prior to any appearance before a magistrate or judge, appellant was asked to provide a DNA sample, as required by section 296, and refused, even after being informed that refusal to provide a sample would constitute a misdemeanor with which he would be charged.

On February 17, 2009, appellant was charged by information with arson (§ 451, subd. (d)—count 1); possession of combustible material or incendiary device (§ 453, subd. (a)—count 2); vandalism (§ 594—count 3); and refusal or failure to provide a DNA specimen (§ 298.1, subd. (a)—count 4). Appellant pleaded not guilty to all four counts.

With respect to the first three counts, appellant admitted at trial that he set fire to the patrol car's tires using a mixture of oil, gasoline, and styrofoam as an accelerant. He did not commit his acts maliciously, he testified, but to protest what he considered a corrupt government and system and to call attention to a political group he had formed, whose web sites had been "deleted from the Internet."

As to the fourth count, shortly after appellant's arrest and while he was in county jail, San Francisco Sheriff's Deputy Kenneth Washington advised appellant that state law required him to provide a DNA sample, which would be obtained by swabbing the inside of his cheek with a cotton-tipped swab. When appellant stated he did not wish to provide a sample, Deputy Washington showed appellant a Penal Code section 296 collection

form which stated “the law about 296 PC requirements.” After appellant read the form, Deputy Washington again asked him to provide a sample, and appellant again refused. Appellant continued to refuse after being advised that his refusal was a misdemeanor offense with which he would be charged under section 298.1. Deputy Washington stated that provision of a DNA sample was required of all persons arrested for a felony offense, appellant had not been singled out, and his DNA was not sought to connect him to evidence found at the scene, and it was not used for that purpose. Washington testified that at the time San Francisco deputy sheriffs seek a DNA sample from arrestees they also obtain two thumbprints and a signature, and he apparently had no difficulty obtaining these items from appellant.

On April 22, 2009, appellant unsuccessfully moved for judgment of acquittal on count 4, contending that his arrest for a felony offense does not create a constitutionally adequate basis for requiring him to provide a biological sample.

On April 30, 2009, the jury returned a verdict finding appellant guilty of all counts. That same day, the court ordered appellant to provide a DNA sample prior to sentencing. On May 28, 2009, after learning of appellant’s refusal to comply with this order, the court issued an order permitting the San Francisco Sheriff’s Department or the Department of Corrections to use “reasonable force, as outlined in P.C. 298.1, and in conjunction with guidelines of the Department of Corrections,” to “bring defendant Buza into compliance” with section 296. Prior to the July 6, 2009 sentencing hearing, appellant provided a DNA sample.

Appellant was sentenced to the low term of 16 months in state prison on count 1, with an additional concurrent 16-month sentence on count 2, and a concurrent six-month county jail term on count 4, refusal to provide a DNA sample. A 16-month sentence on count 3 was stayed pursuant to section 654. The court granted appellant appropriate custody and conduct credits, imposed appropriate restitution fines, and ordered him to register as an arson offender under section 457.1. The court also informed appellant that he would be included in the State’s DNA and forensic identification database and data bank program.

## DISCUSSION

### *The Statutory Scheme*

California law enforcement officials have been authorized to collect forensic identification blood, saliva or buccal (cheek) swab samples from persons convicted of certain serious crimes since 1984. (See former § 290.2, added by Stats. 1983, ch. 700, § 1.) In 1998, the Legislature enacted the DNA Act (§§ 295-300.3; Stats. 1998, ch. 696, § 2), which required “DNA and forensic identification data bank samples” from all persons convicted of specified offenses. (§ 295, subd. (b)(2).)<sup>3</sup> The purpose of the DNA Act “is to assist federal, state, and local criminal justice and law enforcement agencies within and outside California in the expeditious and accurate detection and prosecution of individuals responsible for sex offenses and other crimes, the exclusion of suspects who are being investigated for these crimes, and the identification of missing and unidentified persons, particularly abducted children.” (§ 295, subd. (c).)

At the November 2004 General Election, California voters amended the DNA Act by enacting Proposition 69, the DNA Fingerprint, Unsolved Crime and Innocence Protection Act. That measure significantly enlarged the scope of persons subject to warrantless DNA searches by, among other things, providing that, beginning on January 1, 2009, warrantless seizure of DNA would be required of any adult arrested for or charged with any felony. (§ 296, subd. (a)(2)(C).)

Pursuant to the DNA Act, collection of DNA must take place “immediately following arrest, or during the booking . . . process or as soon as administratively practicable after arrest, but, in any case, prior to release on bail or pending trial or any physical release from confinement or custody.” (§ 296.1, subd. (a)(1)(A).) DNA samples are ordinarily limited to collection of inner cheek cells of the mouth (buccal swab samples) with a small stick. (§ 295, subd. (e).) The taking of a DNA sample is

---

<sup>3</sup> “DNA database and data bank acts have been enacted in all 50 states as well as by the federal government. (See 42 U.S.C. §§ 14131-14134; and see Annot., Validity, Construction, and Operation of State DNA Database Statutes (2000) 76 A.L.R.5th 239, 252.)” (*Alfaro v. Terhune* (2002) 98 Cal.App.4th 492, 505.)

mandatory; law enforcement officials lack discretion to suspend the requirement. (§ 296, subd. (d); *People v. King* (2000) 82 Cal.App.4th 1363, 1373.)

After the sample is taken, it is sent to the DNA Laboratory of the California Department of Justice (DOJ), which is responsible for the management and administration of the state's DNA and Forensic Identification Database and Data Bank Program and which stores, correlates and compares forensic identification samples for use in criminal investigations. (§§ 295, subds. (f), (g), (i)(1)(C); 295.1, subd. (c); *People v. King, supra*, 82 Cal.App.4th at p. 1370.) Analysis of the DNA may be “only for identification purposes.” (§ 295.1, subd. (a).) A genetic profile is created from the sample based on 13 genetic loci known as “noncoding” or “junk” DNA, because “they are thought not to reveal anything about trait coding” (*Haskell v. Brown* (N.D.Cal. 2009) 677 F.Supp.2d 1187, 1190 (*Haskell*)); the resulting profiles are so highly individuated that the chance of two randomly selected individuals sharing the same profile are “infinitesimal” (*United States v. Kincade* (9th Cir. 2004) 379 F.3d 813, 819 (*Kincade*), cert. den. sub nom. *Kincade v. United States* (2005) 544 U.S. 924). The profile is uploaded into the state's DNA data bank, which is part of the national Combined DNA Index System (CODIS),<sup>4</sup> and can be accessed by local, state and federal law enforcement

---

<sup>4</sup> CODIS is a massive computer system which connects federal, state, and local DNA databanks. (CODIS Program and the National DNA Index System (Fact Sheet) <<http://www.fbi.gov/about-us/lab/codis/codis-and-ndis-fact-sheet>>.) CODIS is also the name of the related computer software program. (*Ibid.*) CODIS's national component is the National DNA Index System (NDIS), the receptacle for all DNA profiles submitted by federal, state, and local forensic laboratories. (*Ibid.*) DNA profiles typically originate at the Local DNA Index System (LDIS), then migrate to the State DNA Index System (SDIS), containing forensic profiles analyzed by local and state laboratories, and then to NDIS. (CODIS Brochure (Brochure) <[http://www.fbi.gov/about-us/lab/codis/codis\\_brochure](http://www.fbi.gov/about-us/lab/codis/codis_brochure)>; Levels of the Database <<http://www.dna.gov/dna-databases/levels>>.)

All three database levels work together to match DNA profiles. Local law enforcement agencies take a DNA sample from a suspect and develop a DNA profile, which is searched against the state database of convicted offender and arrestee profiles. (Fact Sheet, *supra*, <<http://www.fbi.gov/about-us/lab/codis/codis-and-ndis-fact-sheet>>.) If there is a match (hit), the forensic laboratory confirms the match; after confirmation,

agencies and officials. (*Haskell*, at p. 1190.) As soon as a DNA profile is uploaded, it is compared to crime scene samples in CODIS; new crime scene samples are searched against the uploaded profile, and a search of the entire system is performed once each week. (*Id.* at p. 1191.) In CODIS, the profile does not include the name of the person from whom the DNA was collected, or any case related information, but only a specimen identification number, an identifier for the agency that provided the sample, and the name of the personnel associated with the analysis. (*Id.* at p. 1190.) If a “hit” is made, matching the profile to a crime scene sample, it is confirmed with a new analysis of the profile, after which the submitting laboratory is notified and can notify the appropriate law enforcement agency. (*Id.* at p. 1191.)

The DNA Act specifies that samples and profiles may be released only to law enforcement personnel and contains penalties for unauthorized use or disclosure of DNA information. (§299.5, subds. (f), (i).) A person whose DNA profile has been included in the state data bank may have his or her DNA specimen and sample destroyed, and database profile expunged from the data bank program, if he or she “has no past or present offense or pending charge which qualifies that person for inclusion within the . . . Data Bank Program and there otherwise is no legal basis for retaining the specimen or

---

the laboratory obtains the suspect’s identity. (*Ibid.*) Law enforcement agencies can share information and develop additional leads. (*Ibid.*) CODIS also combs NDIS weekly and returns matches to the original laboratory. (Combined DNA Index System <<http://www.dna.gov/dna-databases/codis>>.)

DNA databanks are growing rapidly. As of January 2011, NDIS contained over 9,298,324 offender profiles and 356,343 forensic profiles. (CODIS-NDIS Statistics (Statistics) <<http://www.fbi.gov/about-us/lab/codis/ndis-statistics>>.) The FBI projects that “the number of profiles in NDIS has and will continue to increase dramatically.” (Brochure, *supra*, <[http://www.fbi.gov/about-us/lab/codis/codis\\_brochure](http://www.fbi.gov/about-us/lab/codis/codis_brochure)>.) As of January 2011, CODIS had produced over 136,400 hits between “known samples” (from existing offenders) and “forensic samples” (from crime scenes). (Statistics, at p. 1.) This raw hit rate is 1.467%. As of December 31, 2010, the California DNA Data Bank Program (CAL-DNA) contained 1,680,038 profiles gathered under Section 296. (California Department of Justice Proposition 69 DNA Data Bank Program Report for Fourth Quarter 2010 (DOJ Report) <<http://ag.ca.gov/bfs/pdf/quarterlyrpt.pdf>>.) The California Department of Justice reports 15,550 total hits (*ibid.*), a raw hit rate of 0.009%.

sample or searchable profile.” (§ 299, subd. (a).) The expungement process, however, is “rather lengthy.” (*Haskell, supra*, 677 F.Supp.2d at p. 1191.) An arrestee must wait until the statute of limitations has run before requesting expungement; the court must then wait 180 days before it can grant the request; the court’s order is not reviewable by appeal or by writ; and the prosecutor can prevent expungement by objecting to the request. (*Id.* at pp. 1191-1192; §§ 299, subds. (b)(1), (c)(1), (c)(2)(D).)<sup>5</sup> Alternatively, a person may seek expungement after being found factually innocent or not guilty of the offense. (§ 299, subds. (b)(3), (b)(4).)

Federal law governing DNA testing has followed a trajectory similar to that which led to the DNA Act. A decade ago, Congress enacted the DNA Analysis Backlog Elimination Act of 2000 (42 U.S.C. § 14135a) (the federal DNA Act), which required the collection of a DNA sample from individuals convicted of “qualifying” federal offenses and incarcerated or on parole, probation or supervised release. (42 U.S.C. § 14135a(a)(1)

---

<sup>5</sup> An individual may initiate expedited expungement proceedings by filing a request and supporting documentation with the DOJ DNA Database Program. (<[http://ag.ca.gov/bfs/pdf/expungement\\_app\\_instruc.pdf](http://ag.ca.gov/bfs/pdf/expungement_app_instruc.pdf)>) DOJ may grant an expungement request if the individual submits a three-page form and provides “sufficient documentation” of his or her identity, legal status, and criminal history to meet the section 299 requirements. (State of California form DLE 244, <[http://ag.ca.gov/bfs/pdf/expungement\\_app\\_instruc.pdf](http://ag.ca.gov/bfs/pdf/expungement_app_instruc.pdf)>) Depending on the grounds for expungement, the required documentation may be a letter in support of expungement from a district attorney or prosecutor, or a certified or file-stamped copy of a court order, opinion, docket, or minute order. (*Id.* at p. 2.) If DOJ denies the request, the individual may initiate a court proceeding. (Expungement Request Instructions <[http://ag.ca.gov/bfs/pdf/expungement\\_app\\_instruc.pdf](http://ag.ca.gov/bfs/pdf/expungement_app_instruc.pdf)>) To do so, the individual must file a petition for expungement with proof of service of the petition on the DOJ’s DNA Laboratory and the trial court and prosecuting attorney of the county where the petitioner was arrested, the conviction was entered, or the disposition was rendered. (§ 299, subd. (c)(1); Judicial Council Forms, form CR-185.)

The DOJ posts monthly statistics for the Jan Bashinski DNA Laboratory. (Jan Bashinski DNA Laboratory Monthly Statistics <<http://ag.ca.gov/bfs/pdf/Monthly.pdf>>.) This posting indicates the number of samples removed from the backlog, but as the number of samples removed includes “any samples Expunged, Removed or Failed twice, as well as where a New Sample has been requested,” it does not reveal how many samples were expunged or how many profiles eligible for expungement might exist in the databank.

and (2); *Kincade, supra*, 379 F.3d at pp. 816-817.) “[Q]ualifying federal offenses,” enumerated in the statute, included murder, voluntary manslaughter, aggravated assault, sexual abuse and other violent offenses. (42 U.S.C. § 14135a(d)(1); *Kincade*, at p. 816, fn. 1.) In 2004, Congress expanded the definition of “qualifying federal offenses” to include all felonies. (*United States v. Kriesel* (9th Cir. 2007) 508 F.3d 941, 942 (*Kriesel*)). In 2006, Congress further expanded the reach of the 2000 act by allowing the Attorney General to “collect DNA samples from individuals who are *arrested*, facing charges, or convicted . . . .” (42 U.S.C. § 14135a(a)(1)(A), italics added.)<sup>6</sup> The samples collected are provided to CODIS.

### ***Appellant’s Fourth Amendment Claim***

The Fourth Amendment to the United States Constitution protects “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures . . . .” (U.S. Const., Amend. IV.) There is no doubt that nonconsensual extractions of substances that may be used for DNA profiling are “searches” entitled to the protection of the Fourth Amendment. (*Schmerber v. California* (1966) 384 U.S. 757, 767-771 (*Schmerber*) (blood); *People v. Robinson* (2010) 47 Cal.4th 1104, 1119, cert. den. sub nom. *Robinson v. California* (2010) \_\_\_ U.S. \_\_\_ [131 S. Ct. 72] (blood); *Skinner v. Railway Labor Executives Assn.* (1989) 489 U.S. 602, 616-617 (breathalyzer and urine sample); *Cupp v. Murphy* (1973) 412 U.S. 291, 295 (finger nail scrapings).) This principle has been applied to swabbing the inside of the mouth for saliva. (See, e.g., *Padgett v. Donald* (11th Cir. 2005) 401 F.3d 1273, 1277, cert. den. sub. nom. *Boulineau v. Donald* (2005) 546 U.S. 820; *Schlicher v. Peters* (10th Cir. 1996) 103 F.3d 940, 942 943.)

Courts have routinely held that the collection of DNA by means of a blood test is a minimal intrusion into an individual’s privacy interest in bodily integrity (*Kriesel, supra*, 508 F.3d at p. 948; *United States v. Amerson* (2nd Cir. 2007) 483 F.3d 73, 84 (*Amerson*),

---

<sup>6</sup> The 2006 expansion of statutory DNA collection did not go into effect until 2009, when the Attorney General promulgated implementing regulations. (28 C.F.R. § 28.12.)



cert. den. sub nom. *Amerson v. United States* (2007) 552 U.S. 1042; *United States v. Sczubelek* (3rd Cir. 2005) 402 F.3d 175, 184, cert. den. (2006) 548 U.S. 919; *Kincade, supra*, 379 F.3d at pp. 836-837), while collection by means of a buccal swab is even less intrusive. (*United States v. Mitchell* (3rd Cir. July 25, 2011, No. 09-4718) \_\_\_ F.3d \_\_\_, 2011 WL 3086952, \*17 (*Mitchell*); *Haskell, supra*, 677 F.Supp.2d at p. 1198.) The collection of the DNA sample, however, is only the first part of the search authorized by the DNA Act; the second occurs when the DNA sample is analyzed and a profile created for use in state and federal DNA databases. (*Mitchell*, at \*17; *Amerson*, at p. 85.) The latter search is the true focus of our analysis and the analyses of other courts that have considered the validity of DNA statutes.

As the text of the Fourth Amendment indicates, the ultimate measure of the constitutionality of a governmental search is “reasonableness.” Subject only to a few specifically established and well delineated exceptions, none of which are relied upon in this case, warrantless searches are per se unreasonable under the Fourth Amendment; the state therefore bears the burden of showing that the search at issue is reasonable and therefore constitutional. (*People v. Williams* (1999) 20 Cal.4th 119, 127.)

Prior to expansion of the scope of the Federal DNA Act in 2006 to include the taking of DNA samples from arrestees, the constitutionality of that act was upheld by every federal circuit presented with the issue. (*Banks v. United States* (10th Cir. 2007) 490 F.3d 1178; *United States v. Weikert* (1st Cir. 2007) 504 F.3d 1; *Amerson, supra*, 483 F.3d 73; *United States v. Hook* (7th Cir. 2006) 471 F.3d 766, cert den. sub nom. *Hook v. United States* (2007) 549 U.S. 1343; *Johnson v. Quander* (D.C. Cir. 2006) 440 F.3d 489, cert. den. 549 U.S. 945; *United States v. Conley* (6th Cir. 2006) 453 F.3d 674; *United States v. Kraklio* (8th Cir. 2006) 451 F.3d 922, cert. den. sub nom. *Kraklio v. United States* (2006) 549 U.S. 1044; *United States v. Sczubelek, supra*, 402 F.3d 175; *Groceman v. U.S. Dept. of Justice* (5th Cir. 2004) 354 F.3d 411; *Kincade, supra*, 379 F.3d 813.)<sup>7</sup> In

---

<sup>7</sup> Comparable state statutes authorizing collection of DNA samples from persons convicted of qualifying offenses were also universally upheld by federal circuit courts. (E.g., *Wilson v. Collins* (6th Cir. 2008) 517 F.3d 421; *Nicholas v. Goord* (2nd Cir. 2005)

upholding statutes requiring the taking of DNA samples from persons convicted of criminal offenses, the Ninth Circuit has applied the “totality of the circumstances” test, which balances the invasion of an individual’s privacy against the government’s interest in conducting a search without a warrant supported by probable cause. (See, e.g., *Kriesel*, *supra*, 508 F.3d at p. 947; *Kincade*, at p. 831.) A majority of other federal circuits also employ this test, while other courts have applied the “special needs” test. (See *Kriesel*, at p. 946; *Kincade*, at pp. 830-831 [compiling cases].) The “special needs” exception to the general rule that a search must be based on individualized suspicion permits suspicionless searches “if they are ‘conducted for important *non-law enforcement purposes* in contexts where adherence to the warrant-and-probable cause requirement would be impracticable.’ ” (*Friedman v. Boucher* (9th Cir. 2009) 580 F.3d 847, 853 (*Friedman*), quoting *Kincade*, *supra*, 379 F.3d at p. 823.)

California courts also employ the totality of the circumstances test to determine the reasonableness of a warrantless search. As our Supreme Court stated in a case in which DNA was collected pursuant to an earlier version of section 296, “ ‘[r]easonableness . . . is measured in objective terms by examining the totality of the circumstances’ (*Ohio v. Robinette* (1996) 519 U.S. 33, 39 . . . ), and ‘whether a particular search meets the reasonableness standard “ ‘is judged by balancing its intrusion on the individual’s Fourth Amendment interests against its promotion of legitimate governmental interests.’ ” ’ (*Veronica School Dist. 47J v. Acton* [(1995)] 515 U.S. [646,] 652-653; see also *Samson v. California* (2006) 547 U.S. 843, 848 (*Samson*).)” (*People v. Robinson*, *supra*, 47 Cal.4th at p. 1120.)

### ***Balancing Individual Privacy Rights Against Governmental Interests: Convicted Offenders***

In cases applying the totality of the circumstances test to uphold DNA testing of convicted offenders, the fact of the offenders’ convictions drives both sides of the

---

430 F.3d 652, cert. den. (2006) 549 U.S. 953; *Padgett v. Donald*, *supra*, 401 F.3d 1273; *Green v. Berge* (7th Cir. 2004) 354 F.3d 675; *Rise v. Oregon* (9th Cir. 1995) 59 F.3d 1556 (*Rise*), cert. den. (1996) 517 U.S. 1160; *Jones v. Murray* (4th Cir. 1992) 962 F.2d 302, cert. den. 506 U.S. 977.

analysis. Convicted offenders are subject to “ ‘a broad range of [restrictions] that might infringe constitutional rights in free society’ ” and have “severely constricted expectations of privacy relative to the general citizenry” (*Kincade, supra*, 379 F.3d at pp. 833-834; see *Kriesel, supra*, 508 F.3d at p. 947); specifically, convicted offenders have been held to have no reasonable expectation of privacy in their identity. (*Kincade*, at p. 837; *Kriesel*, at p. 947; *Hamilton v. Brown* (9th Cir. 2010) 630 F.3d 889, 895; *Rise, supra*, 59 F.3d at p. 1560; *People v. Robinson, supra*, 47 Cal.4th at p. 1121.) At the same time, the government has a strong interest in identifying and prosecuting offenders and, in the case of those on supervised release, promoting rehabilitation and protecting the community. (*Kincade*, at pp. 833-835 [parolee]; *Kriesel*, at p. 947 [probationer]; *Hamilton v. Brown*, at pp. 895-896.) Accurate identification has been viewed as serving the governmental purposes of returning conditional releasees to prison if they reoffend, reducing recidivism through the deterrent effect of DNA profiling, and solving past crimes (*Kincade*, at pp. 838-839; *Kriesel*, at pp. 949-950), as well as avoiding erroneous convictions (*People v. Robinson*, at p. 1121).

These cases have emphasized “ ‘the well-established principle that parolees and other conditional releasees are not entitled to the full panoply of rights and protections possessed by the general public.’ ” (*U.S. v. Scott* (9th Cir. 2006) 450 F.3d 863, 873 (*Scott*), quoting *Kincade, supra*, 379 F.3d at p. 833.) *Kincade* “stressed the ‘transformative changes wrought by a lawful conviction and accompanying term of conditional release,’ . . . and the ‘severe and fundamental disruption in the relationship between the offender and society, along with the government’s concomitantly greater interest in closely monitoring and supervising conditional releasees,’ occasioned by a conviction and imposition of release conditions.” (*Scott*, at p. 873, quoting *Kincade*, at pp. 834, 835.) *Kincade* expressly emphasized the “limited nature” of its holding to “lawfully adjudicated criminals whose proven conduct substantially heightens the government’s interest in monitoring them.” (*Kincade*, at pp. 835-836.) Similarly, *Kriesel* emphasized that its ruling “does not cover DNA collection from arrestees” or

individuals who have “completely served” their terms and “left the penal system.”  
(*Kriesel, supra*, 508 F.3d at pp. 948-949.)

Even these cases, however, generated significant debate and disagreement among the judges who decided them. *Kincade, supra*, 379 F.3d 813, in which a plurality upheld the Federal DNA Act as it then applied to convicted violent offenders, produced five separate opinions. Judge Gould, whose vote allowed the court to affirm, emphasized that the fact DNA was taken from a convicted offender on supervised release was critical. (*Kincade*, at pp. 840, 841-842 (conc. opn. of Gould, J.)<sup>8</sup> Four judges joined in Judge Reinhardt’s dissent, which cautioned that under the affirming judges’ analyses, “all Americans will be at risk, sooner rather than later, of having our DNA samples permanently placed on file in federal cyberspace, and perhaps even worse, of being subjected to various other governmental programs providing for suspicionless searches conducted for law enforcement purposes.” (*Kincade, supra*, 379 F.3d at pp. 842, 843 (dis. opn. of Reinhardt, J.)) Judge Reinhardt criticized use of the totality of the circumstances test to uphold a suspicionless search, but would have invalidated the DNA Act even under that test because “[t]he invasions of privacy the Act authorizes are substantial; the probationers and parolees subjected to its provisions maintain reasonable expectations of privacy; and the government’s interest, while significant, is no stronger than its ordinary interest in investigating and prosecuting crimes.” (*Id.* at pp. 864, 869.) Judge Kozinski joined Judge Reinhardt’s opinion, but also wrote separately, arguing that “[i]f collecting DNA fingerprints can be justified on the basis of the plurality’s multifactor, gestalt high-wire act, then it’s hard to see how we can keep the database from expanding to include everybody.” (*Kincade*, at pp. 871, 872 (dis. opn. of Kozinski, J.)) Judge Hawkins wrote yet another dissent, finding the suspicionless extraction of DNA not justified by the identified governmental needs despite convicted felons’ lessened expectations of privacy. (*Kincade*, at p. 875 (dis. opn. of Hawkins, J.))

---

<sup>8</sup> Judge Gould would have affirmed under a special needs analysis rather than the totality of the circumstances test employed by the plurality. (*Kincade, supra*, 379 F.3d at p. 840 (conc. opn. of Gould, J.))

In *Kriesel, supra*, 508 F.3d 941, which upheld DNA testing of all convicted felons on supervised release, Judge Fletcher dissented, focusing on the facts that the 2004 federal DNA Act permitted continued searches of Kriesel’s DNA whenever the government “has some minimal investigative interest,” including after the end of his period of supervised release, and that recidivism rates were “among the lowest for non-violent drug offenders” such as Kriesel. (*Kriesel*, at pp. 950, 956, 957 (dis. opn. of Fletcher, J.))<sup>9</sup>

### ***Balancing the Interests: Prior to Conviction***

The significance of the offender having suffered a conviction was highlighted in *Friedman, supra*, 580 F.3d at pages 850-851, which found unconstitutional the forcible taking of a buccal sample for DNA collection from a pretrial detainee in the absence of a warrant, court order or individualized suspicion, for the express purpose of helping solve cold cases. The defendant in *Friedman* had served a sentence in another state and was no longer under governmental supervision; his current arrest was for an unrelated charge. (*Id.* at p. 851.) The government argued the DNA extraction was “reasonable” in light of the limited privacy rights of pretrial detainees and the interest of law enforcement in collecting DNA samples for use in its databases. (*Id.* at p. 856.)

The *Friedman* court disagreed, noting that suspicionless searches of pretrial detainees had not previously been upheld for reasons other than prison security and emphasizing the United States Supreme Court’s statement in *Schmerber, supra*, 384 U.S. 757, 769-770, that “ ‘[t]he interests in human dignity and privacy which the Fourth Amendment protects forbid any such intrusion on the mere chance that desired evidence might be obtained.’ ” (*Id.* at pp. 856-857.) *Friedman* saw the government’s position,

---

<sup>9</sup> Judge Fletcher authored the majority opinion in *Rise, supra*, 59 F.3d at page 1556, which upheld a state statute requiring DNA collection from persons convicted of murder and certain sexual offenses. Judge Nelson dissented in *Rise*, viewing nonconsensual DNA testing of even persons convicted of these violent offenses as invalid under precedent “that recognizes invasion of the body as an intrusion of a scope fundamentally different from the capture of visual images or fingerprints, in which there is a minimal expectation of privacy because that information ordinarily is held out to the public.” (*Rise, supra*, 59 F.3d at p. 1564 (dis. opn. of Nelson, J.))

which “would endorse routine, forcible DNA extraction,” as contrary to the *Schmerber* court’s view that the need for “ ‘informed, detached and deliberate determinations of the issue whether or not to invade another’s body in search of evidence of guilt is indisputable and great.’ ” (*Ibid.*, quoting *Schmerber*, at p. 770.) *Friedman* distinguished *Kincade* and *Kriesel* on the basis that those cases involved convicted felons still under state supervision. (*Friedman*, at p. 857.) As the court explained, the rationale for sustaining searches in those circumstances was articulated in *Samson*, *supra*, 547 U.S. 843, upholding a search on the basis of the plaintiff’s status as a parolee, in which the Supreme Court cited the requirement of “intense supervision” of such persons and the problems of “reintegration” of parolees into society. (*Friedman*, at p. 858, citing *Samson*, at p. 854.) These concerns were inapplicable in the case of a pretrial detainee. (*Friedman*, at p. 858.)

In a departure from all of the cases just discussed, in which the defendant’s conviction or lack thereof was central to the analysis, the magistrate judge in *United States v. Pool* (E.D.Cal. 2009) 645 F.Supp.2d 903 (*Pool*), upheld the requirement imposed by amendments to the federal Bail Reform Act (18 U.S.C. § 3142(b) and (c)(1)(A)) and DNA Fingerprinting Act (42 U.S.C. § 14135a) that certain arrestees give a DNA sample as a condition of *pretrial* release. *Pool* held that “*after a judicial or grand jury determination of probable cause has been made for felony criminal charges against a defendant*, no Fourth Amendment or other Constitutional violation is caused by a universal requirement that a charged defendant in a felony case undergo a ‘swab test,’ or a blood test when necessary, for the purposes of DNA analysis to be used solely for criminal law enforcement, identification purposes.” (*Pool*, *supra*, 645 F.Supp.2d at p. 917, italics added.)<sup>10</sup>

---

<sup>10</sup> The opinion of the magistrate judge in *Pool* was adopted by District Judge Edward J. Garcia in *United States v. Pool* (E.D.Cal. July 15, 2009) 2009 WL 2152029), which was affirmed by a divided panel in *United States v. Pool* (9th Cir. 2010) 621 F.3d 1213.

The majority reasoned that the “ ‘watershed event’ ” of a “ ‘judicial or grand jury finding of probable cause’ ” justified permitting the government to “impose conditions on

*Mitchell, supra*, 2011 WL 3086952, a divided decision by the Third Circuit sitting en banc, reached a similar but potentially broader conclusion. Like *Pool*, *Mitchell* involved an indicted defendant who objected to providing a DNA sample. (*Id.* at \*1.) The district court had concluded that the Fourth Amendment did not permit “warrantless, suspicionless searches” of “members of society who have not been convicted, are presumed innocent, but have been arrested and are awaiting proper trial.” (*United States v. Mitchell* (W.D.Pa. 2009) 681 F.Supp.2d 597, 610). The Third Circuit reversed. (*Mitchell, supra*, 2011 WL 3086952, at \*1.)

---

an individual that it could not otherwise impose on a citizen,” such as a mandatory curfew, electronic monitoring or incarceration. (*United States v. Pool, supra*, 621 F.3d at p. 1219.) The court concluded “that *where a court has determined that there is probable cause to believe that the defendant committed a felony*, the government’s interest in definitively determining the defendant’s identity outweighs the defendant’s privacy interest in giving a DNA sample as a condition of pre-trial release . . . .” (*Id.* at p. 1226, italics added.)

Concurring, Judge Lucero emphasized “that this case condones DNA testing for individuals for whom a judicial or grand jury probable cause determination has been made; *it does not address such sampling from mere arrestees*. . . . That distinction is highly significant. A judicial probable cause determination limits the opportunities for mischief inherent in a suspicionless search regime.” (*United States v. Pool, supra*, 621 F.3d at pp. 1231-1232 (conc. opn. of Lucero, J.), italics added.)

Dissenting, Judge Schroeder rejected the majority’s departure from prior precedent that upheld DNA seizure “only because the earlier statutes that were in issue in those cases limited the warrantless DNA seizure to persons who had been convicted of crimes.” (*United States v. Pool, supra*, 621 F.3d at p. 1235 (dis. opn. of Shroeder, J.)) Judge Schroeder insisted that “[i]f there was, as the majority describes, a ‘watershed event’ that justified what would otherwise be an unconstitutional seizure, the event was a conviction; not a post-arrest probable cause determination.” (*Id.* at p. 1236.) She also emphasized that “[t]he government seeks to seize, and indefinitely retain, not only individuals’ DNA profiles, but rather samples of individual’s entire DNA . . . . [which] contain ‘massive amounts of personal, private data’ . . . [Citation.]” (*Id.* at p. 1237.)

On June 2, 2011, the Chief Judge of the Ninth Circuit issued an order granting a petition for rehearing en banc in *Pool*. The order states that “[t]he three judge panel opinion shall not be cited as precedent by or to any court of the Ninth Circuit.” Our citation and discussion of the majority, concurring, and dissenting opinions of the panel does not violate this directive. (*United States v. Pool* (9th Cir. June 2, 2011, No. 09-10303) 2011 WL 2151202.)

*Mitchell* acknowledged the “ ‘vast amount of sensitive information that can be mined from a person’s DNA and the very strong privacy interests that all individuals have in this information.’ ” (*Mitchell, supra*, 2011 WL 3086952, at \*18, quoting *Amerson, supra*, 483 F.3d at p. 85.) The court held, however, that the profile used in CODIS—as opposed to the sample itself—contained limited information that could be used only for identification purposes, and that any further analysis of the sample for additional private information, or misuse of such information for other purposes, was hypothetical and speculative. (*Id.* at \*18-19.) The *Mitchell* court accepted the analogy employed by many courts between fingerprints and DNA profiles, finding that, as limited by the DNA Act and the current state of technology, “a DNA profile is used solely as an accurate, unique, identifying marker—in other words, as fingerprints for the twenty-first century.” (*Id.* at \*20.) *Mitchell* extended to the DNA context the accepted view that routine fingerprinting of persons lawfully arrested or charged with a crime is permissible under the Fourth Amendment because with probable cause for arrest, the resulting loss of liberty entailed at least some loss of rights to personal privacy. (*Id.* at \*21.) “DNA collection occurs only after it has been determined that there is probable cause to believe that the arrestee committed a crime. In light of this probable cause finding, arrestees possess a diminished expectation of privacy in their own identity, which has traditionally justified taking their fingerprints and photographs. Likewise, because DNA profiles developed pursuant to the DNA Act function as ‘genetic fingerprints’ used only for identification purposes, arrestees and pretrial detainees have reduced privacy interests in the information derived from a DNA sample.” (*Id.* at \*22, fn. omitted.)

With respect to the governmental interest in obtaining DNA samples from arrestees, *Mitchell* viewed DNA profiling as a better means of identification than fingerprints or photographs because an individual cannot alter or disguise his or her DNA. (*Mitchell, supra*, 2011 WL 3086952, at \*23-24.) The court also viewed DNA profiling as serving the government’s interest in a second component of “identity,” described by the district court in *Haskell, supra*, 677 F.Supp.2d at p. 1199, as “what a person has done.” (*Mitchell*, at \*24.) Determining whether an arrestee was implicated in



other crimes, the *Mitchell* court stated, is critical to the determination whether to order the arrestee detained pending trial. (*Ibid.*) Additionally, viewing DNA profiling as assisting the government in “accurate criminal investigations and prosecutions (both of which are dependent on accurately identifying the suspect),” the Third Circuit found it in the government’s interest to have this information “as soon as possible.” (*Ibid.*)

As we have said, in both *Pool* and *Mitchell*, the defendants had been indicted before law enforcement officers sought to obtain DNA samples. Whereas *Pool* grounded its analysis on the fact that the defendant’s DNA sample was collected after a judicial or grand jury determination of probable cause for felony charges had been made (*Pool, supra*, 645 F.Supp.2d at p. 917), *Mitchell* expressly left open the question whether an arresting officer’s probable cause determination could be sufficient. (*Mitchell, supra*, 2011 WL 3086952, at \*22, fn. 22.)<sup>11</sup> This is the question presented in the present case, which involves a more extreme circumstance than *Pool* or *Mitchell*—the routine testing of arrestees *before* either a magistrate’s determination of probable cause for arrest (§ 817), or that an offense has been committed and there is sufficient cause to believe the arrestee is guilty and should be held to answer (§ 872, subd. (a)), or a written accusation by a grand jury charging the arrestee with a public offense (§ 889). In the common situation in which the arrest is not based on a warrant, the regime mandated by our DNA Act effectively forecloses such a judicial determination prior to DNA sampling, because, as we have said, section 296.1, subdivision (a)(1)(A), requires the sample to be taken “as soon as administratively practicable after arrest.” The present case thus differs from

---

<sup>11</sup> In *United States v. Thomas* (W.D.N.Y. Feb. 14, 2011, No. 10-CR-6172CJS) 2011 WL 1599641, a magistrate judge in New York also upheld the federal DNA Act against challenge by an indicted defendant. Following the authority in the Second Circuit of *Amerson, supra*, 483 F.3d at p. 87, which upheld that Act in the case of a probationer, *Thomas* applied the special needs test, stating that the defendant’s “status as an indicted person does not materially affect the analysis of the privacy right at stake.” (*United States v. Thomas*, at \*10.) *Thomas* noted, “If not at the time that a person is arrested, certainly once there has been a determination of probable cause to believe that an individual has committed a federal felony, the individual no longer has any ‘right’ or legitimate expectation of keeping his or her identity from the government. The magistrate’s decision in *Thomas* was adopted by the district court. (*Id.* at \*6.)

*Mitchell*, and the trial court’s ruling in the present case would fail the test used by the magistrate judge in *Pool*.

The only case that has analyzed the California or federal DNA Acts as applied to arrestees who have not been subjected to a judicial probable cause determination, *Haskell, supra*, 677 F.Supp.2d 1187, denied a preliminary injunction to enjoin enforcement of section 296, subdivision (a)(2)(c), the provision requiring mandatory testing of arrestees.<sup>12</sup> With respect to the individual privacy interest, *Haskell* viewed arrestees as having a greater expectation of privacy than convicted felons, but “a lesser privacy interest than the general population.” (*Haskell*, at p. 1197.) In particular, the court noted the Ninth Circuit’s statements that “once an individual is ‘lawfully arrested and booked into state custody,’ he can claim no right of privacy in his identity” (*ibid.*, quoting *Kincade, supra*, 379 F.3d at p. 837) and “while fingerprinting of ‘free persons’ is a ‘sufficiently significant interference with individual expectations of privacy’ to require probable cause or articulable suspicion, ‘everyday “booking” procedures routinely require even the merely accused to provide fingerprint identification, regardless of whether investigation of the crime involves fingerprint evidence.” (*Haskell*, at p. 1197, quoting *Rise, supra*, 59 F.3d at pp. 1559-1560.) *Haskell* mentioned the district court’s statement in *Pool* that “ ‘[p]robable cause has long been the standard which allowed an arrestee to be photographed, fingerprinted and otherwise be compelled to give information which can later be used for identification purposes’ ” (*Haskell*, at p. 1197,

---

<sup>12</sup> Prior to the decisions in *Haskell* and *Mitchell*, *United States v. Purdy* (D. Neb. Dec. 19, 2005, No. 8:05CR204) 2005 WL 3465721, \*8, found that a Nebraska state statute authorizing collection of DNA from individuals arrested for any felony offense violated the Fourth Amendment of the United States Constitution. *Purdy* stated, “[a] person arrested, but not convicted, for a certain crime cannot be forced to provide DNA ‘identification’ evidence without a showing that such evidence would identify him as the perpetrator of the crime. The probable cause that supports an arrest is not necessarily probable cause for a DNA search. Further, there is no showing, in the case of DNA evidence, that exigent circumstances would justify a warrantless search at issue. . . . The information revealed in a DNA analysis does not dissipate over time, thus, its acquisition is not time sensitive. (*Id.* at \*7.) *Purdy* concluded that a DNA search “must be authorized by a neutral and detached judicial officer.” (*Ibid.*)

quoting *Pool, supra*, 645 F.Supp.2d at p. 910)), but glossed over the fact that the probable cause finding relied upon in *Pool* was that of a *judge or grand jury*, not that of the arresting officer.<sup>13</sup> There was no such finding in *Haskell*.

*Haskell* found that the plaintiffs had failed to articulate “how DNA differs in a legally significant way from other means of identification.” (*Haskell, supra*, 677 F.Supp.2d at p. 1197.) In *Haskell*’s view, the plaintiffs’ arguments “that DNA is different because it is ‘something of mine which is very personal,’ ‘the building blocks of our existence,’ and implicates ‘our personhood,’ are emotionally stirring, but not legally compelling.” (*Id.* at p. 1198.) Accordingly, *Haskell* concluded that the plaintiffs had “not shown that arrestees cannot reasonably be forced to identify themselves upon arrest through DNA evidence.” (*Ibid.*)

As to the governmental interests, while conceding they were not as strong at the arrest stage as those identified in *Kincade* and *Kriesel* because arrestees are not under the supervision of any authority, and no evidence had been presented to show that arrestees are more likely to commit future crimes than members of the general population (*Haskell, supra*, 677 F.Supp.2d at p. 1198, citing *Friedman, supra*, 580 F.3d 847, 858, and *Scott, supra*, 450 F.3d at p. 874), *Haskell* held the government had a strong interest in identifying arrestees. Allowing that there was “some . . . logical appeal” to the argument that the government’s practice of verifying a subject’s identity with fingerprints before taking his DNA showed “that fingerprints are used for identification, while DNA is used for something else,” *Haskell* rested on the fact that “the Ninth Circuit has unequivocally held that what DNA evidence does is identify.” (*Haskell*, at p. 1199, citing *Rise, supra*, 59 F.3d at p. 1559; *Kincade, supra*, 379 F.3d at p. 837; *Kriesel, supra*, 508 F.3d at p. 947.)

---

<sup>13</sup> In a footnote, the *Haskell* court simply noted that *United States v. Purdy, supra*, 2005 WL 3465721 held “that DNA sampling of arrestees is unconstitutional, in part because ‘[t]he probable cause that supports an arrest is not necessarily probable cause for a DNA search.’ ” (*Haskell, supra*, 677 F.Supp.2d at p. 1197, fn. 9.)

In addition to accurate identification of the arrestee, *Haskell* found a government interest supportive of DNA sampling in the solution of past crimes, pointing to statistics suggesting “that arrestee submissions contribute to the solution of crimes, but not to the same degree as convicted offender submissions.” (*Haskell, supra*, 677 F.Supp.2d at p. 1201.)<sup>14</sup> After balancing the competing considerations, *Haskell* concluded that “California’s DNA searching of arrestees appears reasonable” because, although “[a]rrestees undoubtedly have a greater privacy interest than convicted felons,” the plaintiffs had “not shown that that interest outweighs the government’s compelling interest in identifying arrestees, and its interest in using arrestees’ DNA to solve past crimes.” (*Haskell, supra*, 677 F.Supp.2d at p. 1201.)

*Haskell*’s analysis is, in our view, flawed in two respects. First, it accepts an analogy between fingerprinting and DNA testing that ignores vast differences in the amount and type of personal information each procedure reveals. Second, it adopts an expansive definition of the term “identification”—used in the DNA Act to limit authorized analysis and use of DNA—that utterly conflates the concepts of identity verification and criminal investigation. While this definition of identification, as we later explain (see discussion, *post*, at pp. 25-35), accurately reflects the way the term is used in the DNA Act, it is not a basis upon which the challenged search may be found reasonable within the meaning of the Fourth Amendment.

### ***The DNA/Fingerprint Analogy***

The legitimacy of the comparison between the fingerprinting process and DNA sampling is at the heart of the caselaw on DNA testing. *Haskell* agreed with courts that have viewed the two procedures as analogous. (*Haskell, supra*, 677 F.Supp.2d at

---

<sup>14</sup> *Haskell* stated that weight was not being placed on two other interests articulated by the government: Its interest in preventing future crimes was “not strong” because it had not convincingly demonstrated that DNA testing of arrestees significantly prevented future crimes, and its interest in exonerating the innocent was “not very strong” because it had not yet introduced evidence that taking arrestee DNA increased exonerations or decreased false accusations or convictions. (*Haskell, supra*, 677 F.Supp.2d at p. 1201 & fn. 12.)

pp. 1197-1198, quoting *Rise, supra*, 59 F.3d at p. 1559 [“the ‘information derived from the blood sample is substantially the same as that derived from fingerprinting’ ”]; *Pool, supra*, 645 F.Supp.2d at p. 911 [“ ‘DNA sampling is analogous to taking fingerprints as part of the routine booking process upon arrest’ ”]; *United States v. Amerson, supra*, 483 F.3d at p. 87 [“ ‘[t]he government justification for this form of identification, therefore, relies on no argument different in kind from that traditionally advanced for taking fingerprints and photographs, but with additional force because of the potentially greater precision of DNA sampling and matching methods’ ”].) *Haskell* focused primarily on the DNA profile, which is derived from “ ‘junk’ ” DNA, and ignored the differences between a DNA profile and a DNA sample, including that the latter contains the entire human genome.

In general, the cases upholding DNA testing statutes have dismissed concerns about the extent of the personal information contained in DNA samples by limiting their attention to the profile used in DNA databanks, as currently restricted by statutes and scientific capability. For example, *Mitchell* rejected the district court’s view that comparing fingerprinting to DNA testing was “ ‘pure folly’ ” because of the nature and amount of information revealed by the latter, emphasizing that only the profile, not the sample, is available in CODIS: “Given the protections built into the [federal] DNA Act, the Government’s stated practice of only analyzing ‘junk DNA,’ and the current limits of technology, the information stored in CODIS serves only an identification purpose.” (*Mitchell, supra*, 2011 WL 3086952, \*19-20.) As the *Mitchell* dissenters pointed out, this focus on the *use* of DNA ignores the full extent of the *search* that has taken place. (*Id.* at \*32 (dis. opn. of Rendell, J.).)<sup>15</sup>

---

<sup>15</sup> The dissent elaborated, “[t]he majority’s focus on the Government’s *use* of that DNA as the controlling privacy consideration is simply misguided. It is akin to saying that if the Government seizes personal medical information about you but can only use the subset of that information that serves to identify you, your privacy interest in the information taken is confined to a mere interest in your identity. Nothing could be further from the truth, and the majority engages in sleight of hand by suggesting otherwise. ¶¶ . . . [W]here in our jurisprudence have we held that post-collection

Even focusing on the DNA profile alone, the analogy to fingerprints is blind to the nature of DNA. Courts are well aware that “[r]ecent studies have begun to question the notion that junk DNA does not contain useful genetic programming material” (*Kincade, supra*, 379 F.3d at p. 818, fn. 6, citing Gibbs, *The Unseen Genome: Gems Among the Junk*, Scientific American, Nov. 2003, at p. 29; see *Mitchell, supra*, 2011 WL 3086952, \*32 (dis. opn. of Rendell, J.)) and that an intense debate on this subject is now taking place in scientific and legal communities (see Cole, *Is The “Junk” DNA Designation Bunk?* (2007) 102 Nw. U. L. Rev. Colloquy 54). And even if the 13 loci used in the genetic profile uploaded into the state’s DNA data bank and CODIS do not now provide any significant amount of personal, private data, scientific advances will undoubtedly increase the quantity and nature of information that can be extracted from that limited genetic information. (See *Kriesel, supra*, 508 F.3d at p. 947 [“with advances in technology, junk DNA may reveal far more extensive genetic information”].)

In any case, the private information that can be extracted from noncoding DNA is not the only or even the greatest danger to privacy. DNA profiles are derived from blood specimens, buccal swab samples and other biological samples containing the entire human genome, which DOJ’s laboratory is required to collect and store. (§§ 295, subds. (h), (i)(C), 295.1, subd. (c).) Like the DNA laws of almost every other state and federal law, the DNA Act is silent as to how long these specimens and samples may be kept, and it is reasonable to expect they will be preserved long into the future, when it may be possible to extract even more personal and private information than is now the case.<sup>16</sup> “[T]he advance of science promises to make stored DNA only more revealing.”

---

safeguards on the use of seized material can immunize an otherwise impermissible search?” (*Mitchell, supra*, 2011 WL 3086952, at \*32 (dis. opn. of Rendell, J.))

<sup>16</sup> As earlier noted, the DNA Act permits certain persons whose DNA profiles have been included in the data bank to have their DNA specimens or samples destroyed and searchable database profile expunged (see discussion, *ante*, at p. 7, fn. 5); however, no provision of the DNA Act requires the destruction of DNA specimens or samples after a specified period of time. Indeed, section 299, subdivision (e), of the Act declares that DOJ “is not required to expunge DNA profile or forensic identification information or destroy or return specimens, samples or print impressions taken pursuant to this section if

(*Kincade, supra*, 379 F.3d at p. 842, fn. 3 (conc. opn. of Gould, J.)). Moreover, as we later explain, the Act places few restrictions on the law enforcement uses to which such information may be put. (See discussion, *post*, at pp. 35-42.) This raises questions both about the kind of personal and private information that may be derived from the DNA samples in the DOJ’s possession, and the uses of that biometric data as scientific developments increase the type and amount of information that can be extracted from it. For example, commentators have discussed the potential for research to identify genetic causes of antisocial behavior that might be used to justify various crime control measures. (See Joh, *Reclaiming “Abandoned DNA,” supra*, 100 Nw. U. L.Rev. at p. 878.) Fingerprinting presents no comparable threat to privacy.

Another distinction significant in considering the privacy interests at stake is that DNA testing is viewed by society as a process reserved exclusively for criminals. Because many professions and branches of civil service require fingerprinting, the practice is “not in itself a badge of crime.” (*United States v. Kelly* (1932) 55 F.2d 67, 70 (*Kelly*); see also *Thom v. New York Stock Exchange* (S.D.N.Y. 1969) 306 F.Supp. 1002, 1007 [“The day is long past when fingerprinting carried with it a stigma or any implication of criminality”].) In contrast, society views DNA sampling not just as a badge of crime, but as a badge of the most dangerous crimes: “DNA is used most commonly, both in the public perception and in reality, to detect more heinous crimes such as rape and murder.” (Note, *Faulty Foundations: How the False Analogy to*

---

the duty to register under Section 290 [the Sex Offender Rights Act] or 457.1 [requiring registration of persons convicted of arson] is terminated.” Under the DNA Act, the DOJ is “authorized” to dispose of unused specimens and samples or unused portions thereof, “in the normal course of business and in a reasonable manner as long as the disposal method is designed to protect the identity and origin of specimens and samples from disclosure to third persons who are not a part of law enforcement.” (§ 299.7.) Wisconsin is apparently the only state whose DNA law requires the destruction of all specimens and samples after analysis has been performed. (Joh, *Reclaiming “Abandoned” DNA: The Fourth Amendment and Genetic Privacy* (2006) 100 Nw.U. L.Rev. 857, 871, fn. 77, citing Wis. Stat. Ann § 165.77(3) (West 2004).)

*Routine Fingerprinting Undermines the Argument for Arrestee DNA Sampling* (2010)  
19 Wm. & Mary Bill Rts. J. 475, 496 (Note).)

The view of DNA testing as analogous to fingerprinting is also problematic because the practice of fingerprinting on arrest, though routine, has never been subjected to Fourth Amendment analysis under the tests that must be used to analyze the constitutionality of DNA sampling. By the time the totality of the circumstances test was announced, “fingerprinting had long been informally deemed ‘routine.’” (Note, *supra*, 19 Wm. & Mary Bill Rts. J., at p. 510.) “Because the great expansion in fingerprinting came before the modern era of Fourth Amendment jurisprudence ushered in by *Katz v. United States* [citation omitted], it proceeded unchecked by any judicial balancing against the personal right to privacy.” (*Kincade, supra*, 379 F.3d 813, 874 (dis. opn. of Kozinski, J.)) As has been noted, the “historical basis for allowing fingerprinting is not entirely clear.” (*United States v. Pool, supra*, 621 F.3d at p. 1230 (conc. opn. of Lucero, J.)) But the fact that fingerprinting became routine without being subjected to analysis under the Fourth Amendment is no reason to use it as the basis of a conclusion that DNA testing survives that analysis.

In fact, the ease with which some courts move from fingerprinting to DNA testing to embrace the undeniable law enforcement advantages of the newer technology raises a substantial red flag. Since Fourth Amendment analysis centers on what society considers reasonable expectations of privacy, it both reflects current values and shapes future ones. (See *Kincade, supra*, 379 F.3d at p. 873, dis. opn. of Kozinski, J.) In *Kincade*, which dealt with DNA testing only of the limited population of individuals convicted of specified felony offenses, both the concurring and dissenting judges expressed concern that the reach of the DNA statutes would be extended. As Judge Kozinski cogently noted, “when that inevitable expansion comes, we will look to the regime we approved today as the new baseline and say, this too must be OK because it’s just one small step beyond the last thing we approved. . . . My colleagues in the plurality assure us that, when that day comes, they will stand vigilant and guard the line, but by then the line—never very clear to begin with—will have shifted.” (*Ibid.*) Since *Kincade*, courts’



approval of DNA testing of *certain* convicted felony offenders has been followed by approval of testing of *all* convicted felony offenders (*Kriesel, supra*, 508 F.3d 941), testing of individuals who have been charged with felony offenses (*Pool, supra*, 645 F.Supp.2d 903) and, with *Haskell*, arrestees who have not yet been subjected to a judicial determination of probable cause. Each step in this process has facilitated the next reduction of “reasonable expectations of privacy.”

### ***The Conflation of Identification and Investigation***

In the context of fingerprinting, courts have drawn a distinction between identification—fingerprints taken “to verify that the person who is fingerprinted is really who he says he is,” and investigation—fingerprints taken “to connect [the person fingerprinted] to a crime with which he was not already connected.” (*U.S. v. Garcia-Beltran* (9th Cir. 2004) 389 F.3d 864, 867.) Fingerprints that are validly obtained for purposes of identification can later be used as evidence or in an investigation. (*Loder v. Municipal Court* (1976) 17 Cal.3d 859, 865 (*Loder*).)<sup>17</sup> Fingerprints obtained as a result of an illegal arrest are not subject to suppression if they were taken “solely to establish [the arrestee’s] true identity.” (*U.S. v. Garcia-Beltran*, at pp. 865-866.) But suppression *is* required if fingerprints were taken as a result of an illegal arrest for an “ ‘investigatory’

---

<sup>17</sup> *Loder* explained: “[A]t the time of arrest the suspect’s right of privacy is obviously outweighed by the necessity of identifying him correctly, and does not give him the right to refuse to disclose his name and address to the arresting officer. Not only may such information be taken down, it may be immediately put to use: the officer may transmit the data to his headquarters in order to determine whether the arrestee is wanted on any other charge or is a fugitive, or whether he presents a threat to the officer’s safety. If the arrestee is thereafter transported to the police station and booked, the identification process may lawfully extend to taking his fingerprints and photograph, and recording his vital statistics. (See Pen. Code, § 7, subd. 21.) . . . [¶] . . . [¶] . . . [T]he information derived from the arrest may be used by the police in several ways for the important purpose of investigating and solving similar crimes in the future. We have held, for example, that a photograph taken pursuant to even an illegal arrest may be included among those shown to a witness who is asked to identify the perpetrator of a subsequent crime. (*People v. McInnis* (1972) 6 Cal.3d 821, 825-826.) This is a fortiori permissible in the case of a lawful arrest; and the same identification function is served, of course, by the arrestee’s fingerprints and other recorded physical description.” (*Loder, supra*, 17 Cal.3d at pp. 864-865.)

purpose, *i.e.*, to connect [the arrestee] to alleged criminal activity.” (*Id.* at p. 865; see *Hayes v. Florida* (1985) 470 U.S. 811; *Davis v. Mississippi* (1969) 394 U.S. 721.) As one commentator has noted, courts have commonly accepted “inquiries that merely identify arrestees” as an “identification exception” to the requirement of a warrant and reasonable suspicion, but “investigatory use of biometric data is not what underlies the ‘identification exception’ ”; that exception “might be better denominated a ‘true identity’ exception, since it merely relates to the government’s need to know precisely who it has arrested.” (Kaye, *The Constitutionality of DNA Sampling on Arrest* (Winter 2001) 10 Cornell J. of L. & Pub. Policy 456, 487-488.)

*Haskell’s* analysis of the DNA Act, however, employed an uncommonly capacious definition of “identification,” as that word is used in the provision of the Act mandating that DNA analysis be performed “only for identification purposes” (§ 295.1, subd. (a)). “Put simply,” *Haskell* said, “identification means *both* who that person is (the person’s name, date of birth, etc.) *and what that person has done* (whether the individual has a criminal record, whether he is the same person who committed an as-yet unsolved crime across town, etc.). Who the person is can often be checked using fingerprints, but that does not preclude the government from also checking that individual’s identity in other ways. An individual might wear gloves at some point, thwarting fingerprint identification, or wear a mask, thwarting the use of photographs. The more ways the government has to identify who someone is, the better chance it has of doing so accurately. . . . The second component of identity, what the person has done, is no less important. Nor is it new. Plaintiffs could point the Court to no case holding that once an individual has been identified through his fingerprints, the government was barred from running those same fingerprints against crime scene samples for investigative purposes (or from showing individuals’ photographs to victims or witnesses).” (*Haskell, supra*, 677 F.Supp.2d at pp. 1199-1200, italics added.) As we have noted, the *Mitchell* court adopted *Haskell’s* expansive definition of “identification” in its analysis of the federal DNA Act. (*Mitchell, supra*, 2011 WL 3086952, at \*24.)

The first component of the *Haskell* court’s definition of “identification”—“who that person is”—addresses the government’s interest in establishing the true identity of an arrestee. In this aspect, the definition comports with common understanding of the term, which is defined by the Oxford English Dictionary as the “action or process of determining what a thing is or who a person is.” (Oxford English Dict. (2nd ed. 1989) p. 619, col. 1.) Identification in this sense was from the outset, and remains, the purpose of fingerprinting arrestees. The police began using fingerprinting as part of the booking process in the early 1900s, as a useful and reliable way to identify arrestees at a time when identifying documents were easily forged. (Note, *supra*, 19 Wm. & Mary Bill Rts. J. at pp. 484-485.) Fingerprints are unique identifiers of an individual. (*Mitchell, supra*, 681F.Supp.2d at p. 608.) Fingerprinting was viewed as a useful means of identification “especially important in a time when increased population and vast aggregations of people in urban centers have rendered the notoriety of the individual in the community no longer a ready means of identification.” (*Kelly, supra*, 55 F.2d at p. 69.)

DNA collection does not serve this purpose. The sampling process mandated by the DNA Act is not an efficient means of establishing who a person is, because DNA taken upon arrest cannot be used immediately for that purpose. Before law enforcement can obtain information about an arrestee from DNA testing pursuant to the DNA Act, the DNA sample must be analyzed and a DNA profile created and run through a database. (CODIS and NDIS Fact Sheet, Federal Bureau of Investigation <<http://www.fbi.gov/about-us/lab/codis/codis-and-ndis-fact-sheet>> [as of July 14, 2011].) *Haskell* noted the government’s assertion that “ ‘the average processing time for arrestee samples is currently about 31 calendar days.’ ” (*Haskell, supra*, 677 F.Supp.2d at p. 1201.) By contrast, fingerprints submitted electronically to the national fingerprint and criminal history system administered by the FBI yield a response in about 10 minutes. (Integrated Automated Fingerprint Identification System (IAFIS), Federal Bureau of Investigation <[http://www.fbi.gov/about-us/cjis/fingerprints\\_biometrics/iafis/iafis](http://www.fbi.gov/about-us/cjis/fingerprints_biometrics/iafis/iafis)> [as of

July 20, 2011].)<sup>18</sup> Additionally, once in the data bank, the DNA profile is not identified by name or case information; only after a hit is made can the law enforcement agency obtain information from the laboratory that submitted the sample and learn the identity of the individual from whom the sample was taken. (*Haskell, supra*, 677 F.Supp.2d at pp. 1190-1191.)

California's protocol for DNA collection and analysis confirms that DNA is not used to verify who a person is. To begin with, far from relieving law enforcement agencies of the need to take fingerprints, the Act requires collection of a right thumb print and a full palm print of each hand as well as a DNA sample. (§ 296, subd. (a)(2)(C).) The first step in collecting a DNA sample by means of the "standard DNA collection kit" provided by the DOJ to local and state law enforcement agencies is to "identify the subject" (<<http://ag.ca.gov/fbs/content/faq.php#mechanics>> (FAQ Collection Mechanics, Question 1.1), indicating the immediate means of "identification" is *not* the subject's DNA. Further demonstrating this point, since DNA samples are not taken from arrestees who have already had samples taken (*Haskell, supra*, 677 F.Supp.2d at p. 1190), the arrestee's identity must be verified by other means before a DNA sample can be collected. (<<http://ag.ca.gov/fbs/content/faq.php#mechanics>> [FAQ DNA Sample

---

<sup>18</sup> Fingerprints and criminal history information from local, state and federal law enforcement agencies are compiled in the IAFIS, the "largest biometric database in the world," administered by the FBI. (<[http://www.fbi.gov/about-us/cjis/fingerprints\\_biometrics/iafis/iafis](http://www.fbi.gov/about-us/cjis/fingerprints_biometrics/iafis/iafis)>.) IAFIS offers automatic fingerprint search capability, latent search capability, electronic image storage, and electronic exchange of fingerprints and responses. (*Ibid.*) The system boasts a 10-minute average response time for electronic criminal fingerprint submission and processes an average of 162,000 ten-fingerprint submissions per day. (*Ibid.*)

California uses the California Identification System (Cal-ID), the automated system maintained by the DOJ for retaining fingerprint files and identifying latent fingerprints. (Pen. Code, § 11112.1.) Jails in each county use live scan devices to capture electronic fingerprints during booking. (Orange County Sheriff's Department, <<http://www.occl.ocgov.com/Sections/CalID.aspx>>.) The devices transmit fingerprints to the countywide system, which then searches and compares the new prints to the database's existing prints. (*Ibid.*) Then, the records are sent electronically to the state DOJ, which searches and registers them within Cal-ID and later transmits them to the FBI for inclusion in IAFIS. (*Ibid.*)

Collection: Who & When, Question 4].)<sup>19</sup> Accordingly, the “FAQ” section of the California Attorney General’s website concerning collection of DNA samples states that, in implementing the requirement that “collection take place ‘as soon as administratively practicable after arrest[,] . . . [t]he main issue will be the ability of the agency to access the rap sheet or some other resource to determine if samples already have been collected (through a county-wide database, for instance) *and to identify the individual, preferably via prints and CAL-ID*” (<<http://ag.ca.gov/fbs/content/faq.php#mechanics>> [FAQ DNA Sample Collection: Who & When, Question 4] (emphasis added).) In sum, DNA profiles are neither necessary nor helpful for verifying who a person is at the time of arrest. Indeed, the fact that DNA testing cannot be employed to verify a person’s true identity at the time of arrest demonstrates that collection of a DNA sample at this time has another purpose.

*Haskell*’s suggestion that DNA is a useful means of identification because “an individual might wear gloves at some point, thwarting fingerprint identification, or wear a mask, thwarting the use of photographs” (*Haskell, supra*, 677 F.Supp.2d at p. 1199) illustrates the confusion created by the different meanings *Haskell* attributed to the term “identification.” The possibilities cited in *Haskell* relate to the *investigatory* value of DNA sampling, not its use for identification in the sense of “who that person is.” *Haskell*’s example referred to the ability of an offender to avoid leaving evidence at a

---

<sup>19</sup> The standard DNA collection kit “requires local agency personnel to: [¶] 1. identify the subject; [¶] 2. determine that a DNA sample needs to be collected; [¶] 3. fill out a Specimen Information Card; [¶] 4. collect the right thumbprint and signature of the person the sample is being collected from; [¶] 5. observe the subject collecting the inner cheek (buccal) cell sample himself or herself . . . [¶] 6. Place the sample in a sealed specimen pouch. The agent then places the pouch containing the specimen and specimen identification card into the kit’s return envelope and mails the completed kit to the DNA Laboratory. . . . [¶] Some law enforcement agencies in California have now installed a ‘Live Scan’ DNA data collection program that allows for the collection of identifying fingerprints (via the Automated Fingerprint Identification System) as well as the information needed on the usual Specimen Information Card, so that they can be transmitted securely to the DNA Lab electronically using a barcode number for reference. . . .” (<<http://ag.ca.gov/fbs/content/faq.php#mechanics>> [FAQ Collection Mechanics, Question 1].)

crime scene and thereby undermine police efforts to find the perpetrator. As *Kincade* observed, “unlike fingerprint evidence (which can be effectively masked by wearing gloves), there is no simple way to avoid leaving DNA evidence at the scene of a crime. Just as DNA permeates blood, semen, and saliva, it is recoverable from hair and epidermal cells—which even the most sophisticated criminals cannot help but leave behind.” (*Kincade, supra*, 379 F.3d at p. 838, fn. 37.) *Mitchell* made the same point, finding DNA a better means of identification than fingerprints or photographs because of criminal offenders’ ability to conceal or disguise their identity. (*Mitchell, supra*, 2011 WL 3086952, at \*23-24.) But fingerprinting to confirm identity at booking is not subject to such concealment: An arrestee cannot mask his or her identity by wearing gloves while being fingerprinted by the police.

*Haskell* explained that the “what a person has done” aspect of “identification” refers to “whether the individual has a criminal record, whether he is the same person who committed an as-yet unsolved crime across town, etc.” (*Haskell, supra*, 677 F.Supp.2d at p. 1199.) However, determining whether an arrestee has “committed an as-yet unsolved crime across town” entails an investigation into evidence of crime unrelated to the offense for which the arrestee has been arrested. When DNA is taken from an arrestee and checked against a data bank for unsolved crimes, there is no particularized suspicion that the arrestee committed any of those unsolved crimes; the link to unsolved crime is created by use of the DNA sample. There can be no doubt that this use of DNA samples is for purposes of criminal investigation rather than simple identification. Since DNA profiles do not provide an immediate means of verifying identity, they are used primarily, if not exclusively, to search for linkages to unsolved crimes and not to accurately identify the arrestee.

While *Haskell*’s inclusion of criminal investigation in the meaning of the word “identification” seems to us too contrived, it is unquestionably consonant with the purpose of the DNA Act: Proposition 69 was clearly designed to permit the use of an arrestee’s DNA for investigative purposes. The ballot arguments in favor of the measure relied heavily on crime-solving promises and concerns, emphasizing the utility of DNA

in investigating and solving crime. The ballot argument opened dramatically: “ ‘In California, the remains of a boy missing for two decades are finally identified. Two cold murders are solved in Kansas. And in Texas, a serial sexual predator is captured. The cases are cracked thanks to technology police are calling the fingerprints of the 21st century.’ (Associated Press, March 2004) (italics omitted).” (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), argument in favor of Prop. 69, p. 62.) The ballot argument continued with further crime-solving success headlines: “ ‘Hunch leads to Rape Suspect’s Arrest; Detective obtains DNA sample from a convicted burglar that links him to attacks on 11 women.’ (LA Times, April 2004). [¶] ‘DNA tests clear man of slayings; man jailed since late 2002 on charges of killing his ex-girlfriend and her sister.’ (Bakersfield Californian, May 2004).” (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), argument in favor of Prop. 69, p. 62, italics omitted.) Proponents asserted that DNA evidence “identifies criminals and protects the innocent” and touted the benefits of an “all-felon database,” asserting that “ ‘[t]he chances of solving a rape or murder increase by 85% with an all-felon DNA database (California State Sheriffs’ Association President Robert Doyle).” (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), argument in favor of and rebuttal to argument against Prop. 69, pp. 62-63.) Proponents claimed taking a DNA sample at booking “is more efficient and helps police conduct accurate investigations. No wasting time chasing false leads . . . .” (*Id.* at p. 62.) According to proponents, “[Proposition] 69 can prevent thousands of crimes by taking dangerous criminals off the streets,” and California’s existing DNA database was “too small, unable to deal with the thousands of unsolved rapes, murders, and child abductions.” (*Ibid.*)<sup>20</sup>

Although Proposition 69 twice declared the state’s compelling interest in “accurate identification of criminal offenders,” the findings section of the proposed law confirms

---

<sup>20</sup> To demonstrate the ineffectiveness of California’s DNA database, proponents compared California’s database to Virginia’s. “Virginia has a comprehensive DNA database including arrestees. Virginia’s population is less than Los Angeles County, but solves more crimes with DNA than California. In 2002, California solved 148 cases; Virginia 445.” (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), argument in favor of Prop. 69, p. 62.)

that its critical purpose was crime-solving. (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), text of Prop. 69, p. 135.) The findings identified a “critical and urgent need” to furnish law enforcement “with the latest scientific technology available for accurately and expeditiously identifying, apprehending, arresting, and convicting criminal offenders and exonerating persons wrongfully suspected or accused of crime.” (*Ibid.*) It was declared that law enforcement “should be able to use the DNA Database and Data Bank Program to substantially reduce the number of unsolved crimes; to help stop serial crime by quickly comparing DNA profiles of qualifying persons and evidence samples with as many investigations and cases as necessary to solve crime and apprehend perpetrators. . . .” (*Ibid.*) The findings stated that expansion of the DNA Database and Data Bank Program was “the most reasonable and certain means” to solve crime effectively and to increase rapidly the number of “cold hits.” (*Ibid.*)<sup>21</sup>

In fact, the text of the DNA Act does not restrict the investigatory uses to which DNA specimens, samples, and profiles may be put by law enforcement agencies. Despite the provision in the DNA Act that the DOJ “shall perform DNA analysis . . . only for identification purposes” (§ 295.1, subd. (a)), other provisions authorize release of DNA samples and profiles collected under the Act “to law enforcement agencies,” including “district attorneys’ offices and prosecuting city attorneys’ offices” (§ 299.5, subd. (f)), and “to a jury or grand jury, or in a document filed with a court or administrative agency, or as part of a judicial or administrative proceeding, or for this information to become part of the public transcript or record of proceedings *when, in the discretion of law enforcement*, disclosure is necessary because the DNA information pertains to the basis for law enforcement’s identification, *arrest, investigation, prosecution, or exclusion of a*

---

<sup>21</sup> Opponents to Proposition 69 focused on innocence and privacy issues. Opponents charged that the “all-felon database” afforded no protection to the innocent and would trap DNA of innocent arrestees. (Ballot Pamp., Gen. Elec. (Nov. 2, 2004), rebuttal to argument in favor of Prop. 69, p. 62.) Opponents further warned that Proposition 69 would imperil privacy because DNA evidence is “far more than a fingerprint.” (*Id.*, argument against Prop. 69, p. 63.) Proposition 69 passed with 62.1% of the vote. (Statement of the Vote, Gen. Elec. (Nov. 2, 2004), p. 51.)



*particular person related to the case.*” (§ 299.5, subd. (k), italics added.) The DNA Act thus expressly *authorizes* the use of government stored DNA, including samples containing the entire human genome, not to “identify” a person in the sense of verifying who he or she is, but to assist with the “arrest, investigation, prosecution, or exclusion” of a person. And because the DNA Act authorizes retention of DNA samples as well as the profiles derived from them, those retained samples can be used to criminally investigate persons whose DNA was obtained upon arrest many years earlier, even if they were never criminally charged or were acquitted.

In short, the statement in the DNA Act that DOJ “shall perform DNA analysis and other forensic identification analysis . . . only for identification purposes” (§§ 295.1, subd. (a), 295, subd. (d)), could not have been intended to and does not limit the investigatory use of DNA by law enforcement agencies. Apparently, the only limitation imposed by the Act’s references to “identification” is that it prohibits analysis and use of DNA for non-law enforcement purposes, relating to such things as an individual’s health, propensity for certain diseases or conduct, gender, or race. (See *Kincade, supra*, 379 F.3d at p. 837; *id.* at p. 842, fn. 3 (dis. opn. of Gould, J.)) By merging the ordinarily distinct concepts of verification of identity and criminal investigation, the DNA Act authorizes suspicionless criminal investigation of arrestees in the name of “identification,” absent any true need or ability to use the material collected to verify identity at the time of arrest.<sup>22</sup> Unlike the case with fingerprints, upholding the collection of DNA from arrestees on the theory that it is acquired purely for identification purposes is delusory. The value and primary use of DNA is investigatory; the DNA may be useful for determining who a person is, but this is not the use to which it is put at the time of arrest and it is not necessary for that purpose.

---

<sup>22</sup> The conflation of concepts is also reflected in section 299.5, subdivision (i), which sets forth the penalties for use or disclosure of DNA specimens, samples or profiles for “other than *criminal* identification or exclusion purposes . . . .” (Italics added.)

In addition, it is unclear how much the DNA testing of arrestees at this early stage even supports the investigative function that is the only governmental interest it actually serves. The Attorney General rests heavily on the proposition that such testing “is an important and effective law enforcement tool.” Asserting that adult felony arrestees “more likely than not become tomorrow’s convicted offenders,” the Attorney General points to statistics showing that arrestee sampling “has dramatically increased the number of database hits to unsolved crimes.” (See California Department of Justice, Proposition 69 (DNA) FAQ, Effects of the All Adult Arrestee Provision (Prop. 69 FAQ), <<http://ag.ca.gov/bfs/prop69php>>.)<sup>23</sup> However, a recent analysis of DNA profiling and databases, including California’s, suggested that this governmental interest may not be as great as the Attorney General maintains. (RAND Corporation, Center on Quality Policing, *Toward a Comparison of DNA Profiling and Databases in the United States and England* (2010) (RAND study).) This study cautioned that “hit rates per se are not an especially good measure of database performance” (*id.* at p. 20), and that “[i]n order to improve public safety and improve efficiency of the criminal justice system, we would need to know whether a hit resulted in an offender being apprehended and prosecuted (and whether the offender would have been apprehended as quickly—or at all—but for the database)” (*id.* at p. 17). Even focusing on hit rates, however, analysis revealed that “[d]atabase matches are more strongly related to the number of crime-scene samples than the number of offender profiles in the database.” (*Id.* at p. 20) The RAND study suggested that “[i]f aiding investigations is indeed the goal, it would seem to be a wiser

---

<sup>23</sup> The Attorney General’s website reports: “In 2009, the average DNA sample submission rate increased to about 26,500 per month, or about a 120% increase over the average in 2008 of about 12,000 per month. In addition, the average number of monthly hits increased 51% from 183 per month in 2008 to about 280 in 2009. ¶ While the number of submissions has started to decrease in 2010, as expected, due to the impact of recidivism, the average for 2010 was still nearly 20,500 DNA samples per month. However, the number of hits made per month continues to increase with an average of 360 per month, a 97% increase over the average number of hits made per month in 2008. In fact, in the last 6 months of 2010, the rate was 414 hits per month, an increase of over 125% over the monthly rate in 2008.” (Prop. 69 FAQ, *supra*, at p. 4, <<http://ag.ca.gov/bfs/prop69php>>.)

use of California's resources to devote them to analyzing the backlog of crime-scene evidence rather than keeping pace with felony-arrestee samples," and "a more effective means of increasing hit rates is to increase the number of crime-scene profiles uploaded into the database rather than continue to add more suspects and arrestees (and convicts to lesser crimes) to the database net. The latter does improve the hit rate somewhat, but the former improves it much more." (*Ibid.*)<sup>24</sup>

Aside from such questions about the validity and significance of hit rate statistics, the need for arrestee databases is almost certainly diminished by the number of conviction-offender databases that are in place. "Many of the people who are arrested already have convictions and should be in a convicted-offender database. Arrestee databanking offers no new information about these individuals. Of the remaining arrestees without previous convictions, many will be convicted of the crime for which they were arrested. Even without arrestee databanking, their genotypes would be added to the convicted-offender database, albeit at a later time. Of these, many will not be released pending trial in any event. Of those who are released, many will not commit crimes. Consequently, the total impact of taking DNA from arrestees could be small." (Kaye, *The Constitutionality of DNA Sampling on Arrest*, *supra*, 10 Cornell J. of L. and Pub. Policy, at p. 502, fn. omitted.)

### *Suspicionless Searches*

What the DNA Act authorizes is the warrantless and suspicionless search of individuals, before a judicial determination of probable cause to believe they have committed a crime, for evidence of crime unrelated to that for which they have been arrested. The United States Supreme Court has never permitted suspicionless searches *aimed at uncovering evidence of crime* outside the context of convicted offenders. (*Samson*, *supra*, 547 U.S. 843 [suspicionless search of parolee].) Indeed, "[t]he

---

<sup>24</sup> The RAND study noted that a "1-percent increase in the number of offender profiles increases the percentage of investigations aided by 0.53 percent, while a 1-percent increase in the number of crime-scene profiles increases the percentage of investigations aided by 0.86 percent." (RAND study, *supra*, at p. 20.)

suspicionless search is the very evil the Fourth Amendment was intended to stamp out.” (*Id.* at p. 858 (dis. opn. of Stevens, J).)

In *City of Indianapolis v. Edmond* (2000) 531 U.S. 32, 34 (*Edmond*), which invalidated a city’s highway checkpoint program “whose primary purpose [was] the discovery and interdiction of illegal narcotics,” the Supreme Court summarized its views on suspicionless searches as follows: “The Fourth Amendment requires that searches and seizures be reasonable. A search or seizure is ordinarily unreasonable in the absence of individualized suspicion of wrongdoing. *Chandler v. Miller*, 520 U.S. 305, 308 (1997). While such suspicion is not an ‘irreducible’ component of reasonableness, *Martinez-Fuerte*, 428 U.S. [543,] 561 [(1976)], we have recognized only limited circumstances in which the usual rule does not apply. For example, we have upheld certain regimes of suspicionless searches where the program was designed to serve ‘special needs, beyond the normal need for law enforcement.’ See, e.g., *Vernonia School Dist. 47J v. Acton*, 515 U.S. 646 (1995) (random drug testing of student-athletes); *Treasury Employees v. Von Raab*, 489 U.S. 656 (1989) (drug tests for United States Customs Service employees seeking transfer or promotion to certain positions); *Skinner v. Railway Labor Executives’ Assn.*, [*supra*,] 489 U.S. 602 . . . (drug and alcohol tests for railway employees involved in train accidents or found to be in violation of particular safety regulations). We have also allowed searches for certain administrative purposes without particularized suspicion of misconduct, provided that those searches are appropriately limited. See, e.g., *New York v. Burger*, 482 U.S. 691, 702-704 (1987) (warrantless administrative inspection of premises of ‘closely regulated’ business); *Michigan v. Tyler*, 436 U.S. 499, 507-509, 511-512 (1978) (administrative inspection of fire-damaged premises to determine cause of blaze); *Camara v. Municipal Court of City and County of San Francisco*, 387 U.S. 523, 534-539 (1967) (administrative inspection to ensure compliance with city housing code). [¶] We have also upheld brief, suspicionless seizures of motorists at a fixed Border Patrol checkpoint designed to intercept illegal aliens, *Martinez-Fuerte*, [*supra*, 517 U.S. 806], and at a sobriety checkpoint aimed at removing drunk drivers from the road, *Michigan Dept. of State Police v. Sitz*, 496 U.S. 444 (1990). In addition, in *Delaware v. Prouse*,

440 U.S. 648, 663 (1979), we suggested that a similar type of roadblock with the purpose of verifying drivers' licenses and vehicle registrations would be permissible. In none of these cases, however, did we indicate approval of a checkpoint program whose primary purpose was to detect evidence of ordinary criminal wrongdoing." (*Edmond, supra*, 531 U.S. at pp. 37-38.)

*Edmond* found the checkpoint program violated the Fourth Amendment because its "primary purpose" was "to uncover evidence of ordinary criminal wrongdoing," stating: "We cannot sanction stops justified only by the generalized and ever-present possibility that interrogation and inspection may reveal that any given motorist has committed some crime." (*Edmond, supra*, 531 U.S. at pp. 41-42, 44.)

The Court considered another program based on suspicionless searches in *Ferguson v. Charleston* (2001) 532 U.S. 67, which involved a state hospital's policy of testing pregnant patients for cocaine and referring positive test results to law enforcement for prosecution. (*Id.* at pp. 70-73.) Observing that "the Charleston prosecutors and police were extensively involved in the day-to-day administration of the policy," the Court concluded that "[w]hile the ultimate goal of the program may well have been to get the women in question into substance abuse treatment and off of drugs, the immediate objective of the searches was to generate evidence for law enforcement purposes in order to reach that goal." (*Id.* at pp. 82-83, fn. omitted.) The hospital's "performance of a diagnostic test to obtain evidence of a patient's criminal conduct for law enforcement purposes," without the patient's consent, violated the Fourth Amendment's "general prohibition against nonconsensual, warrantless, and suspicionless searches." (*Id.* at pp. 69-70, 86.)

In *Samson, supra*, 547 U.S. at page 847, the Court upheld the suspicionless search of a parolee by a law enforcement officer, as authorized by section 3067, which requires a parolee to "agree in writing to be subject to search or seizure by a parole officer or other peace officer at any time of the day or night, with or without a search warrant and with or without cause." The Court noted that "parolees are on the 'continuum' of state-imposed punishments," with fewer expectations of privacy than probationers, "because parole is

more akin to imprisonment than probation is to imprisonment.” (*Id.* at p. 850.) “ ‘The essence of parole is release from prison, before the completion of sentence, on the condition that the prisoner abide by certain rules during the balance of the sentence.’ *Morrissey v. Brewer* (1972) 408 U.S. 471,] 477. ‘In most cases, the State is willing to extend parole only because it is able to condition it upon compliance with certain requirements.’ *Pennsylvania Bd. of Probation and Parole v. Scott*, 524U.S. 357, 365 (1998).’ ” (*Samson*, at p.850.) The parolee in *Samson* “did not have an expectation of privacy that society would recognize as legitimate” because of his “status as a parolee, ‘an established variation on imprisonment,’ . . . including the plain terms of the parole search condition[.]” (*Samson*, at p.852, quoting *Morrissey v. Brewer*, *supra*, 408U.S. at p. 477.)

At the same time, *Samson* found the government had “an ‘ ‘overwhelming interest’ ’ in supervising parolees because ‘parolees . . . are more likely to commit future criminal offenses’ ” (*Samson*, *supra*, 547 U.S. at p.853, quoting *Pennsylvania Bd. of Probation and Parole*, *supra*, 524U.S. at p.365) and the government’s “interests in reducing recidivism and thereby promoting reintegration and positive citizenship among probationers and parolees warrant privacy intrusions that would not otherwise be tolerated under the Fourth Amendment.” (*Samson*, at p. 853.) The Court noted empirical evidence in the case demonstrating a 68 to 70 percent recidivism rate for California’s parolee population and approved the California Legislature’s determination that “a requirement that searches be based on individualized suspicion would undermine the State’s ability to effectively supervise parolees and protect the public from criminal acts by reoffenders.” (*Id.* at p. 854.) Stating that “[t]he touchstone of the Fourth Amendment is reasonableness, not individualized suspicion,” *Samson* found the challenged search constitutional “[i]n light of California’s earnest concerns respecting recidivism, public safety, and reintegration of parolees into productive society.” (*Id.* at p. 855, fn. 4.)

The present case, like *Haskell*, involves a programmatic warrantless search of all arrestees’ DNA, without individualized suspicion and prior to any judicial determination of probable cause, much less guilt. As we have seen, the primary purpose and use of the

DNA samples collected is to determine whether the arrestee can be connected to a past unsolved crime and to create a databank through which he or she may now or in the future be connected to a new offense. Because the DNA samples are collected for purposes of investigating criminal offenses, the rationale of the special needs cases does not justify the suspicionless search (see *Edmond, supra*, 531U.S. at p. 34), and the Attorney General does not ask us to affirm on that rationale. To paraphrase *Edmond*, we cannot sanction warrantless searches “justified only by the generalized and ever-present possibility that” they may reveal “any given arrestee” has committed an as-yet unsolved crime or may commit a crime in the future. (See *id.* at pp. 41-42, 44) Nor can the suspicionless search be justified by the concerns identified in *Samson, supra*, 547 U.S. 843. Arrestees are not ordinarily subject to mandatory search conditions, as are parolees; nor do arrestees suffer the high recidivism rate empirically attributable to parolees. (*Id.* at pp. 853-854.) Not having been convicted of any offense, arrestees therefore have a far greater expectation of privacy than parolees, and the government lacks either a supervisory interest or a basis for concern regarding recidivism.

There is also the risk of abuse. The *Samson* Court noted, “[t]he concern that California’s suspicionless search system gives officers unbridled discretion to conduct searches, thereby inflicting dignitary harms that arouse strong resentment in parolees and undermine their ability to reintegrate into productive society, is belied by California’s prohibition on ‘arbitrary, capricious or harassing’ searches. See [*People v.*] *Reyes*, 19 Cal. 4th [743,] 752, 753-754 [(1998)]; *People v. Bravo*, 43 Cal.3d 600, 610 (1987) (probation); see also Cal. Penal Code Ann. §3067(d) (West 2000) (‘It is not the intent of the Legislature to authorize law enforcement officers to conduct searches for the sole purpose of harassment’).” (*Samson, supra*, 547 U.S. at p. 856.) A parolee who can establish that a search was arbitrary, capricious or harassing, can avoid the consequence of the improper search by having the evidence suppressed. (*People v. Reyes*, at pp. 753-754; *People v. Clower* (1993) 16 Cal.App.4th 1737, 1741-1743.)

An arrestee, however, does not have this remedy. The suspicionless search called for in section 296.1 requires a DNA sample to be taken “immediately following arrest, or during the booking . . . process or as soon as administratively practicable after arrest” (§ 296.1, subd. (a)(1)(A)), when the legal basis for arrest is usually only the arresting officer’s determination of probable cause. Even if the arrest is subsequently determined by a judicial officer to have been without sufficient cause, the DNA sample will have been taken and a profile developed, and the use of the profile and preservation of the sample will continue unless and until the arrestee succeeds in the cumbersome process of having them expunged. Without questioning the integrity of most law enforcement officers, it is not difficult to think that the DNA Act might provide an incentive to pretextually arrest a person from whom the police desire a DNA sample. While the actual taking of DNA samples from arrestees is not a matter of discretion, there is no check on the discretion of the officers who make the arrests that create the opportunity for DNA sampling until after the sample has been taken and may already have been used for investigative purposes.<sup>25</sup>

---

<sup>25</sup> Judge Lucero, concurring in *United States v. Pool*, *supra*, 621 F.3d at pp. 1231-1232, stressed the significance of a judicial probable cause determination—which occurred in that case *before* DNA was collected—in limiting “the opportunities for mischief inherent in a suspicionless search regime.” “[T]he Supreme Court has permitted some suspicionless searches when they are subject to ‘standardized criteria, or established routine.’ *Florida v. Wells*, 495 U.S. 1, 4 (1990) . . . . However, the Court has been careful to caution that such ‘programmatically’ searches may not be used as ‘a ruse for a general rummaging in order to discover incriminating evidence.’ *Id.* [¶] By permitting programmatic searches in the absence of particularized suspicion, we introduce a substantial danger that law enforcement personnel will use the DNA-testing regime as a pretext for obtaining evidence against individual suspects rather than as a broad-based tool for ensuring the identity of convicts and pre-trial releasees. Because of this potential for abuse, the Court has limited its approbation of programmatic searches to those ‘administered in good faith.’ *Colorado v. Bertine*, 479 U.S. 367, 374 (1987); see also [*Florida v.*] *Wells*, 495 U.S. at 4. Interposing the judiciary between the executive and the citizenry provides a pre-hoc bulwark against abuse in addition to the post-hoc good faith inquiry.” (*United States v. Pool*, *supra*, 621 F.3d at pp. 1231-1232 (conc. opn. of Lucero, J.).)



The Attorney General attempts to downplay the absence of a judicial determination of probable cause, arguing that “loss of freedom of choice and privacy are ‘inherent incidents’ of felony arrest,” and the “ ‘presumption of innocence’ does not entitle arrestees to claim the full protection of Fourth Amendment privacy guarantees available to ordinary citizens.” Appellant explicitly acknowledges that arrestees’ privacy expectations are “less than members of the general public.” He argues only that his privacy rights are greater than those of prisoners, parolees and probationers.

The Attorney General also relies upon the statement in *In re York* (1995) 9 Cal.4th 1133, that the “ ‘presumption of innocence is a doctrine that allocates the burden of proof in criminal trials; . . . it has no application to a determination of the rights of a pretrial detainee during confinement before his trial has even begun.’ ” (*In re York*, at p. 1148, quoting *Bell v. Wolfish* (1979) 441 U.S. 520, 533.)<sup>26</sup> The salient point in *York* was that a lawful arrest allows restrictions on the liberty to which a citizen is ordinarily entitled. But the mere fact of an arrest does not render it lawful, a judgment that can be made only after a judicial determination of probable cause. Regardless of the significance one

---

More generally, as one commentator has noted, “[t]he shift from sampling on conviction to sampling on arrest raises serious due process issues. The quick collection and forwarding of the DNA sample of an arrestee encourages abuse. It is possible to make questionable arrests to obtain genetic evidence because police collect the sample immediately. [¶] There are concerns about prejudice in the justice system and an increase in investigative detentions will exacerbate the problem. Police release ninety-two percent of African American men charged with drug offenses for lack of evidence or inadmissible evidence. The number of Caucasians police arrest for similarly unsustainable drug offenses in California is sixty-four percent. Proposition 69 fails to limit misconduct and may encourage the underlying bias reflected by this disparity in unsustainable arrests.” (Comment, *A Step Too Far: Due Process and DNA Collection in California* (2007) 40 U.C.Davis L.Rev. 1481, 1510, fns. omitted.) Proposition 69 allows a prosecutor to use DNA evidence obtained as a result of an illegal arrest, the author notes, and “[b]y removing the threat of exclusion of evidence, Proposition 69 encourages police to engage in investigative detentions.” (*Id.* at pp. 1511-1512.)

<sup>26</sup> *In re York* rejected the argument that requiring random drug testing and warrantless search and seizure as conditions of defendants’ release on their own recognizance infringed upon the defendants’ right to the presumption of innocence. (*In re York*, *supra*, 9 Cal.4th at pp. 1147-1148.)

attaches to the “presumption of innocence,” at the time appellant was asked and refused to provide a DNA sample no judicial officer had determined whether there was probable cause to believe he had committed a crime.

### ***Conclusion***

The question this case presents, which is increasingly presented to the courts of this state and nation, is the extent to which technology can be permitted to diminish the privacy guaranteed by the Fourth Amendment. The amount of stigmatizing information that can be extracted from the noncoding DNA currently analyzed for the DOJ database is now a subject of debate, but there is no doubt that an extraordinary amount of private personal information can be extracted from the DNA samples and specimens seized by the police without a warrant, collected and indefinitely retained by the DOJ. The profiles derived from these DNA samples are passed on to the FBI for placement in CODIS and, like the samples themselves, may also be disclosed to and used by criminal law enforcement officers and agencies to solve crimes other than those for which a person was arrested.

The touchstone of our analysis under the Fourth Amendment is always “ ‘the reasonableness in all the circumstances of the particular governmental invasion of a citizen’s personal security.’” (*Pennsylvania v. Mimms* (1977) 434 U.S. 106, 108-109, quoting *Terry v. Ohio* (1968) 392 U.S. 1, 19.) Under the applicable totality of the circumstances test of reasonableness, we must balance the invasion of appellant’s interest in privacy against the government’s interest in seizing biometric material from his body without a warrant supported by probable cause and based solely upon appellant’s status as a mere arrestee.

On the continuum of privacy rights ranging from ordinary citizens, with full expectation of privacy, to incarcerated prisoners, with a very limited expectation of privacy (see *Samson, supra*, 547 U.S. at p. 850), all courts that have addressed the issue agree that the privacy rights of arrestees are greater than those of probationers, parolees or convicted prisoners. And even within the category of arrestees, an individual such as appellant, who has not yet been the subject of a judicial determination of probable cause,

falls closer to the ordinary citizen end of the continuum than one as to whom probable cause has been found by a judicial officer or grand jury. A significant percentage of all felony arrestees are not in fact convicted; whatever the basis of the initial arrest, many of these arrestees are legally innocent of any crime.<sup>27</sup> Yet their DNA profiles remain in the state and federal databanks, and their DNA specimens and samples in the DOJ Laboratory, in perpetuity, unless and until they are able to successfully negotiate a lengthy and burdensome expungement process that is far from guaranteed to succeed.

Against this intrusion into individual privacy rights, the governmental interest in DNA testing at this early juncture in the criminal process is problematic. The asserted interest in identification is undermined by the fact that testing under the DNA Act is not, and cannot be, used to immediately verify who an arrestee is, while the investigative use of DNA testing at this stage strains constitutional limitations and appears to be of incremental utility at best. The governmental interest advanced most vigorously by the

---

<sup>27</sup> In 2009, 407,866 adult felony arrests were made in California. (California Department of Justice, Division of California Justice Information Services, Bureau of Criminal Information and Analysis, Criminal Justice Statistics Center, *Crime in California 2009*, p. 27 <<http://ag.ca.gov/cjsc/publications/candd/cd09/preface.pdf>> (*Crime in California 2009*.) Convictions resulted in 207,959 of these cases; the remainder resulted in dismissals or acquittals, denial of prosecutorial complaints, or law enforcement releases. (*Id.* at p. 65.) These convictions accounted for 67.9 percent of all final adult felony dispositions (*ibid.*), meaning that of all the adult felony arrests in 2009 that reached final disposition, slightly more than one third were convicted. The final disposition data accounts for approximately 65 to 75 percent of the total adult felony arrests made in a year; it does not include intermediate dispositions (diversion programs, suspended proceedings, reopening, retrials, subsequent actions). (*Id.* at pp. 165-166.) Comparing the number of convictions (207,959) to the total number of arrests (407, 866), only 51 percent of those arrested were convicted—that is, almost half the adult felony arrestees in 2009 were *not* convicted.

Respondent points out that the category of arrestees who were not convicted may include some who did in fact commit a crime. One example is an arrestee whose offenses result in revocation of probation rather than a new criminal prosecution; in 2009, 70,062 adults had probation revoked. (*Crime in California 2009*, at p. 79.) Many of these arrestees, however, would have been subject to DNA testing when they were originally convicted. Arrestees whose cases are not pursued by the prosecutor for reasons such as inadmissible evidence or witnesses declining to testify, as respondent suggests, may in fact have committed crimes, but they are legally innocent.

Attorney General is the effectiveness of DNA testing in solving crimes. But even if DNA testing of arrestees was demonstrably valuable to law enforcement, the effectiveness of a crime fighting technology does not render it constitutional. (See, e.g., *City of Indianapolis v. Edward*, *supra*, 531 U.S. at p. 42, *Ferguson v. City of Charleston*, *supra*, 532 U.S. at pp. 83-84.) As Chief Justice Traynor put it, “a search, whether incident to an arrest or not, cannot be justified by what it turns up.” (*People v. Brown* (1955) 45 Cal.2d 640, 643.) Because “[t]he interests in human dignity and privacy which the Fourth Amendment protects forbid any such intrusion on the mere chance that desired evidence might be obtained” (*Schmerber*, *supra*, 384 U.S. at pp. 769-770), “the mere fact that law enforcement may be made more efficient can never by itself justify disregard of the Fourth Amendment” (*Mincey v. Arizona* (1978) 437 U.S. 385, 393; *Arizona v. Gant* (2009) 129 S.Ct. 1710, 1723).

For the reasons we have set forth, we conclude that the DNA Act, to the extent it requires felony arrestees to submit a DNA sample for law enforcement analysis and inclusion in the state and federal DNA databases, without independent suspicion, a warrant or even a judicial or grand jury determination of probable cause, unreasonably intrudes on such arrestees’ expectation of privacy and is invalid under the Fourth Amendment of the United States Constitution.

The judgment is reversed.

---

Kline, P.J.

We concur:

---

Lambden, J.

---

Richman, J.

Trial Court: Superior Court of City and County of San Francisco

Trial Judge: Hon. Carol Yaggy

Attorneys for Appellant: Janice Wellborn, by Appointment of the Court of Appeal Under the First District Appellate Project's Independent Case System

First District Appellate Project  
Matthew Zwerling, Executive Director  
J. Bradley O'Connell, Asst. Director  
Kathryn Seligman, Staff Attorney

Attorneys for Respondent: Edmund G. Brown Jr., Attorney General  
Kamala D. Harris, Attorney General  
Dane R. Gillette, Chief Asst. Atty. General  
Gerald A. Engler, Sr. Asst. Atty. General  
Joyce Blair, Supervising Deputy A.G.  
Stan Helfman, Supervising Deputy A.G.  
Enid A. Camps, Deputy Attorney General

Attorneys for Amicus Curiae  
DNA Saves, in support of  
Respondent:

Fulbright & Jarowski  
Tillman James Breckenridge  
Jonathan S. Franklin