A BETTER BALANCING: RECONSIDERING PRE-CONVICTION DNA EXTRACTION FROM FEDERAL ARRESTEES*

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INTRODUCTION

In a 2004 en banc decision, the Ninth Circuit Court of Appeals upheld as reasonable under the Fourth Amendment the congressionally mandated extraction of DNA from certain federal offenders who were on parole, probation, or supervised release in *United States v. Kincade*.[1] This reversed

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1. 379 F.3d 813, 832 (9th Cir. 2004) (en banc).

the panel opinion, marking the first time a federal court had permitted compulsory DNA extraction from non-incarcerated federal offenders. In dissent, Judge Reinhardt predicted that the majority's rationale "would set us on a dangerous path," including the inevitable extension of DNA collection from convicted offenders to mere arrestees.[2] Judge Kozinski similarly called the majority ruling "an engraved invitation to future expansion."[3] He remarked that "[m]y colleagues in the plurality assure us that, when [the] day comes, they will stand vigilant and guard the line, but by then the line—never very clear to begin with—will have shifted."[4]

The *Kincade* plurality specifically addressed the dissenters' "alarmist tone" about the expansive consequences of its analysis, averring that "[n]othing could be further from the truth."[5] Yet after Congress expanded DNA collection to include arrestees, and just as Judges Reinhardt and Kozinski warned, federal courts have failed to guard the line against further expansion of compulsory DNA extraction. In 2010, a Ninth Circuit panel in *United States v. Pool*[6] upheld as reasonable the suspicionless, warrantless *pre-conviction* extraction of DNA from those indicted on federal felonies. Critical to its holding was the magistrate judge's finding of probable cause prior to the indictment, which the court called a "watershed event" allowing DNA collection prior to a finding of guilt.[7] While the *Pool* decision was recently vacated as moot following the defendant's pleading guilty,[8] a sharply divided Third Circuit sitting en banc likewise upheld suspicionless, warrantless pre-conviction DNA extraction in 2011.[9] In *United States v. Mitchell*,[10] the Third Circuit reversed the district court and held that compulsory DNA collection from federal arrestees is

2. *Id.* at 863–64 (Reinhardt, J., dissenting).

3. *Id.* at 873 (Kozinski, J., dissenting).

4. *Id.*

5. *Id.* at 835 (plurality opinion) ("We also wish to emphasize the limited nature of our holding. With its alarmist tone and obligatory reference to George Orwell's *1984*, Judge Reinhardt's dissent repeatedly asserts that our decision renders every person in America subject to DNA sampling for CODIS [Combined DNA Index System] purposes, including . . . 'arrestees' . . . . Nothing could be further from the truth.").

6. 621 F.3d 1213 (9th Cir. 2010), *vacated as moot*, 659 F.3d 761 (9th Cir. 2011). In June 2011, the Ninth Circuit voted to rehear *Pool* en banc, suggesting some level of dissatisfaction with the panel decision. United States v. Pool, 646 F.3d 659 (9th Cir. 2011). But just a day before scheduled oral arguments, the Ninth Circuit dismissed the appeal as moot on account of the defendant's pleading guilty and vacated the panel opinion and all other prior orders. *Pool*, 659 F.3d at 761–62. Despite the vacatur of the panel opinion, we use it throughout this essay, in part because it is one of only a handful of published opinions addressing pre-conviction DNA collection.

7. *Pool*, 621 F.3d at 1228.

8. *Pool*, 659 F.3d at 761 .

9. United States v. Mitchell, 652 F.3d 387, 415 (3d Cir. 2011) (en banc).

10. 652 F.3d 387 (3d Cir. 2011) (en banc).

constitutional. Foreshadowing even further expansion of DNA extraction, the Third Circuit suggested that a law enforcement officer's finding of probable cause to arrest would suffice to justify pre-conviction DNA collection.[11] A petition for certiorari remains pending.[12] Also in 2011, in *United States v. Thomas*,[13] the Western District of New York upheld DNA extraction as a condition of pretrial release for an indicted federal defendant.[14]

With cases like *Mitchell*, *Thomas*, and *Pool*, federal courts have upheld Congress's steady expansion of federal DNA extraction to permit collection not just from those convicted of select federal offenses, but now from individuals who have not yet been convicted of any crime. And each step in the expansion has been justified in part by its analytic proximity to the one that preceded it. In response to *Mitchell* and with an eye toward forthcoming cases, including a likely review of the issue before the Supreme Court soon, this essay examines the constitutionality of compulsory pre-conviction DNA extraction. It demonstrates that courts have upheld an ever-widening regime of statutorily compelled DNA extraction without adjusting the weight accorded to the competing interests at stake as the practice has broadened its reach. Should the trend continue, courts will soon permit after a series of small steps what many seem hesitant to do in one fell swoop (or, indeed, at all): hold that the government may compel DNA extraction from all individuals arrested by

11. *See id.* at 412. For cases addressing state provisions requiring pre-conviction DNA extraction, compare Haskell v. Harris, No. 3:09-cv-04779-CRB, 2012 WL 589469, at *1 (9th Cir. Feb. 23, 2012), *available at* http://www.ca9.uscourts.gov/datastore/opinions/2012/02/23/10-15152.pdf (finding constitutional under the Fourth Amendment a California state law requiring felon arrestees to submit to DNA extraction before either a magistrate's determination of probable cause for arrest, or a written accusation by a grand jury charging the arrestee with a public offense), with People v. Buza, 129 Cal. Rptr. 3d 753, 755 (Ct. App. 2011) (finding the same California law unconstitutional); *In re* Welfare of C.T.L., 722 N.W.2d 484, 486 (Minn. Ct. App. 2006) (holding that state law authorizing collection of a DNA sample "upon a judicial finding of probable cause, but before any conviction" violated the Fourth Amendment); Anderson v. Commonwealth, 650 S.E.2d 702, 706 (Va. 2006), *cert. denied*, 553 U.S. 1054 (2008) (upholding Virginia statute authorizing DNA collection from arrestees).

12. Anna Stolley Persky, *An Arresting Development: Courts Split over DNA Testing for Those Merely Charged with a Crime*, A.B.A. J. (Jan. 1, 2012, 3:20 AM), http://www.abajournal.com/magazine/article/an_arresting_development_courts_split_over_dna_testing_for_those_merely/.

13. No. 10-CR-6172 CJS, 2011 WL 1627321 (W.D.N.Y. Apr. 27, 2011).

14. United States v. Thomas, No. 10-CR-6172 CJS, 2011 WL 1599641, at *10 (W.D.N.Y. Feb. 14, 2011) (report and recommendation of the magistrate judge). Thomas was never arrested on her indictment and was released on her own recognizance without pretrial supervision on the condition that she submit to DNA extraction. *Id.* at *1. Thomas's appeal to the Second Circuit was voluntarily dismissed pursuant to FED. R. APP. P. 42 on September 20, 2011. Order Withdrawing Appeal, United States v. Thomas, No. 11-1742 (2d Cir. Sept. 20, 2011), ECF No. 43.

federal authorities, regardless of the charge or custodial status of the arrestee, without a warrant or any individualized suspicion that the search will produce evidence of criminality.

Part I of this essay briefly reviews the federal statute that authorizes DNA extraction and the Fourth Amendment principles that underlie the current constitutional challenges to it. Part II identifies the various, and sometimes competing, rationales offered to justify the constitutionality for collecting DNA from individuals before they have been convicted of a crime. Then, Part III argues for a recalibration of the weight that courts currently place on the privacy interest in, and the government's need for, DNA samples from individuals who are presumed innocent. Finally, Part IV identifies four issues yet to be addressed regarding pre-conviction DNA extraction. The holdings of the current cases leave open questions about whether the government's interest in pre-conviction DNA extraction can trump the Fourth Amendment in the absence of a judicial or grand jury finding of probable cause, or when the arrestee is not detained or is charged with only a misdemeanor. Such cases quickly strain the current rationales of circuit courts and cast serious doubt on the constitutionality of the broadly worded statute.

I. BACKGROUND

DNA is a complex molecule found in the nucleus and mitochondria of cells that contains the information that forms the basis of the human genetic code.[15] While the vast majority of human DNA—over 99.7%—is identical, certain stretches of the DNA strand vary, making it possible to distinguish one individual's DNA sequence from another.[16] To enable the use of DNA for criminal forensic purposes, a biological sample is analyzed by the Federal Bureau of Investigation ("FBI") using "STR" or "single-tandem repeat" DNA typing, resulting in a DNA profile.[17] STR typing looks to thirteen loci on the DNA strand and counts the number of times certain known sequences repeat themselves.[18] These thirteen loci were intentionally selected because they are each located on "junk traits" or stretches of DNA that are not presently known to code for any phenotypic

15. JOHN M. BUTLER, FORENSIC DNA TYPING 26 (2d ed. 2005); Natalie Ram, *Fortuity and Forensic Familial Identification*, 63 STAN. L. REV. 751, 757 (2011).

16. Erin Murphy, *Relative Doubt: Familial Searches of DNA Databases*, 109 MICH. L. REV. 291, 294–95 (2010). It is believed that the only people who share identical DNA sequences are identical twins. BUTLER, *supra* note 15, at 26.

17. Murphy, *supra* note 16, at 295.

18. *Id.*

characteristics.[19] The analysis of the DNA sample produces a DNA profile, which the FBI enters into and stores in the Combined DNA Index System ("CODIS"), a national database through which law enforcement matches individuals and crime scene DNA evidence.[20] A DNA profile consists solely of numbers describing the repeated sequences and identifying information for the agency that provided the DNA sample—it does not contain any personal information (such as the name and address) of the individual to whom it belongs.[21]

In 2000, the federal DNA Analysis Backlog Elimination Act[22] authorized for the first time compulsory extraction of DNA from federal offenders, covering those convicted of a "qualifying Federal offense" and who were still in custody or under post-conviction supervision.[23] Federal law initially prohibited DNA profiles of arrestees from being placed in CODIS.[24] In 2006, Congress significantly expanded DNA collection, authorizing the Attorney General to promulgate regulations for collecting DNA from individuals "arrested, facing charges, or convicted."[25] The Department of Justice issued a final rule in 2008 that directs federal agencies to collect DNA samples from individuals who are arrested, facing charges, or convicted, regardless of the underlying charge or offense.[26]

Many have challenged Congress's authorization of DNA collection as unconstitutional, primarily under the Fourth Amendment. The Fourth Amendment guarantees the right to be free from unreasonable searches and seizures.[27] During most of the twentieth century, courts considered a search reasonable if the government obtained a search warrant prior to the search, or if a recognized exception to the warrant requirement applied.[28] More

19. H.R. Rep. No. 106-900, pt. 1, at 27 (2000) (noting that the thirteen loci "were purposely selected because they are not associated with any known physical or medical characteristics" and "do not control or influence the expression of any trait").

20. Murphy, *supra* note 16, at 295–96.

21. *Id.* at 296.

22. DNA Analysis Backlog Elimination Act, Pub. L. No. 106-546, 114 Stat. 2728 (2000) (codified at 42 U.S.C. §§ 14131–14135e (2006)).

23. § 3(a)(2), 114 Stat. at 2728.

24. 42 U.S.C. § 14132(a)(1)(C) (2000) (amended 2006).

25. Adam Walsh Child Safety and Protection Act of 2006, Pub. L. No. 109-248, § 155, 120 Stat. 587, 611 (codified as amended at 42 U.S.C. § 14135a(a)(1)(A) (2006)).

26. Collection of DNA Samples, 28 C.F.R. § 28.12(b) (2011). The final rule was effective January 9, 2009. 28 C.F.R. § 28.12(c).

27. U.S. CONST. amend. IV. The full text reads: "The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized." *Id.*

28. *See* Thomas Y. Davies, *Recovering the Original Fourth Amendment*, 98 MICH. L. REV. 547, 559 (1999) (tracing the evolution of the Fourth Amendment from the original intent of the framers of the Constitution to its current meaning in modern search and seizure doctrine).

recently, however, courts have cooled to this "warrant-preference" view[29] and held that the Fourth Amendment simply requires reasonableness.[30]

Collecting DNA from arrestees entails at least two separate Fourth Amendment events. The physical collection of the DNA sample (either by taking blood or buccal swab) constitutes a search, and the analysis of the sample and creation of a DNA profile also constitutes a search.[31] These events are called "suspicionless" searches because they are not triggered or supported by any individualized suspicion.[32]

Suspicionless searches and seizures are generally unreasonable.[33] Indeed, they are "the very evil the Fourth Amendment was intended to stamp out."[34] The Ninth Circuit and Third Circuit each assessed the reasonableness of pre-conviction DNA extraction under the "totality of the circumstances" approach[35]—assessing in objective terms the degree to which the search intrudes upon an individual's privacy and the degree to which it is needed for the promotion of legitimate governmental interests.[36] The inquiry is effectively a balancing test—when the governmental interest outweighs the privacy intrusion, the search is reasonable.[37] The Western District of New York applied the "special needs" test to pre-conviction DNA extraction, which requires an initial determination that the

29. *Id.*

30. *See, e.g.*, Samson v. California, 547 U.S. 843, 848 (2006) (upholding suspicionless, warrantless search of parolee as reasonable under Fourth Amendment despite lack of recognized exception to warrant requirement); *see also* Akhil Reed Amar, *Fourth Amendment First Principles*, 107 HARV. L. REV. 757, 801 (1994) (arguing that reasonableness, and not the warrant requirement, is at "[t]he core of the Fourth Amendment").

31. United States v. Mitchell, 652 F.3d 387, 406–07 (3d Cir. 2011) (en banc). The *Mitchell* dissenters assert that three separate searches occur: (1) the physical intrusion into the body, (2) the seizure of the biological specimen containing DNA, and (3) the search of that specimen and the creation of a DNA profile. *Id.* at 422 (Rendell, J., dissenting). The majority rejected a possible fourth search, the accessing of the database by law enforcement to compare DNA profiles. *Id.* at 411 n.21 (majority opinion).

32. United States v. Amerson, 483 F.3d 73, 77–78 (2d Cir. 2007).

33. Vernonia Sch. Dist. 47J v. Acton, 515 U.S. 646, 667 (1995) (O'Connor, J., dissenting) ("For most of our constitutional history, mass, suspicionless searches have been generally considered *per se* unreasonable within the meaning of the Fourth Amendment.").

34. *Samson*, 547 U.S. at 858 (Stevens, J., dissenting).

35. *Mitchell*, 652 F.3d at 403. Most courts have used the "totality" approach when assessing compulsory DNA extraction. *See* Wilson v. Collins, 517 F.3d 421, 427 (6th Cir. 2008); United States v. Weikert, 504 F.3d 1, 9 (1st Cir. 2007); Banks v. United States, 490 F.3d 1178, 1184 (10th Cir. 2007); United States v. Kraklio, 451 F.3d 922, 924–25 (8th Cir. 2006); Johnson v. Quander, 440 F.3d 489, 496 (D.C. Cir. 2006); United States v. Sczubelek, 402 F.3d 175, 184 (3d Cir. 2005); Padgett v. Donald, 401 F.3d 1273, 1280 (11th Cir. 2005); United States v. Kincade, 379 F.3d 813, 832 (9th Cir. 2004) (en banc); Groceman v. U.S. Dep't of Justice, 354 F.3d 411, 413–14 (5th Cir. 2004); Jones v. Murray, 962 F.2d 302, 307–08 (4th Cir. 1992).

36. *Mitchell*, 652 F.3d at 402.

37. *Id.* at 403.

suspicionless search serves a special need beyond the normal needs of law enforcement before conducting the same balancing inquiry.[38]

II. THE RATIONALES FOR CONSTITUTIONALITY

This Part identifies four primary rationales courts have asserted for the constitutionality of compelled pre-conviction DNA extraction.

A. Twenty-First Century Fingerprint Rationale

Supporters of compulsory DNA collection frequently begin their defense of the practice by analogizing DNA profiling to fingerprinting.[39] According to the analogy, the uniqueness of the thirteen STR loci of the DNA profile is akin to the distinctive arches, loops, and whorls of fingerprints.[40] The intentional selection of this so-called "junk DNA" for the DNA profile means that, like a fingerprint, a DNA profile provides "precise information about identity but little or no other personal information."[41] Completing the analogy, DNA profiles are stored in a database, just like fingerprints, and are run against a database to search for matches to evidence from unsolved crimes, just like fingerprints.[42]

The use of the fingerprint analogy goes back to the early promoters of DNA identification methods, who called the new technique "DNA fingerprinting" in an intentional attempt to "piggyback on the tremendous power that fingerprinting was known to have."[43] Their efforts to fix the metaphor have been successful. The DNA profiling-fingerprint analogy plays a prominent role in DNA case law. For example, in upholding DNA extraction from those convicted of nonviolent crimes and sentenced to only probation, the Second Circuit stated that "the governmental justification for this form of identification . . . relies on no argument different in kind from

38. United States v. Thomas, No. 10–CR–6172 CJS, 2011 WL 1599641, at *5 (W.D.N.Y. Feb. 14, 2011), *report and recommendation adopted by* United States v. Thomas, 2011 WL 1627321 (W.D.N.Y. Apr. 27, 2011); *see also* United States v. Amerson, 483 F.3d 73, 77–81 (2d Cir. 2007) (applying special needs test to post-conviction DNA collection from probationers); United States v. Hook, 471 F.3d 766, 772 (7th Cir. 2006) (applying special needs test to post-conviction DNA collection from those on supervised release).

39. *See, e.g.*, *Mitchell*, 652 F.3d at 401; H.R. Rep. No. 106-900, pt. 1, at 25 (2000) ("The DNA profiles maintained in the index do no more than provide a means of identifying an offender in much the same way that fingerprint information identifies a person.").

40. *Mitchell*, 652 F.3d at 401.

41. *Id.* at 400–01.

42. *Id.* at 409.

43. Jennifer L. Mnookin, *Fingerprint Evidence in an Age of DNA Profiling*, 67 BROOK. L. REV. 13, 40 (2001). The DNA Fingerprint Act of 2005, Pub. L. 109-162, 119 Stat. 3084 (2006) (codified in scattered sections of 18 and 42 U.S.C.), was the first to authorize the U.S. Attorney General to broaden DNA collection to include arrestees. 42 U.S.C. § 14132(a)(1)(B) (2006).

that traditionally advanced for taking fingerprints and photographs."[44] In endorsing the analogy, the Third Circuit *Mitchell* majority concluded that "a DNA profile is used solely as an accurate, unique, identifying marker—in other words, as fingerprints for the twenty-first century."[45]

The analogy of DNA profiling to fingerprinting allows courts to cite case law upholding the constitutionality of warrantless fingerprinting of arrestees for identification purposes as part of a routine booking process, as both the *Mitchell* majority and the vacated *Pool* panel did.[46] Yet neither court mentioned that fingerprinting was considered routine long before *Katz v. United States*[47] made "a reasonable expectation of privacy" the touchstone of the Fourth Amendment and before the "totality of the circumstances" test was announced in *Illinois v. Gates*.[48] Rather, the pre-conviction DNA cases combine the unquestioned constitutionality of fingerprinting at booking[49] with their depiction of DNA profiling as a twenty-first century fingerprint to conclude that the Fourth Amendment does not forbid warrantless pre-conviction DNA extraction at arrest.

B. Accurate and Efficient Identification Rationale

Although none of the pre-conviction DNA cases appears to have involved any doubts about the arrestee's identity,[50] each case found identifying arrestees to be a compelling governmental interest in pre-

44. United States v. Amerson, 483 F.3d 73, 87 (2d Cir. 2007) (quoting Jones v. Murray, 962 F.2d 302, 307 (4th Cir. 1992)).

45. *Mitchell*, 652 F.3d at 410. The Ninth Circuit panel in *Pool* agreed, stating that DNA profiles are "quite similar to the information gained from fingerprinting and photographing—routine booking procedures." United States v. Pool, 621 F.3d 1213, 1229–30 (9th Cir. 2010).

46. *Mitchell*, 652 F.3d at 411 (noting the "universal approbation of fingerprinting" of lawfully arrested persons); *Pool*, 621 F.3d at 1230 ("[T]he near universal acceptance of [fingerprinting] casts a long shadow over this case.").

47. *See* 389 U.S. 347, 360 (1967) (Harlan, J., concurring).

48. *See* 462 U.S. 213, 238 (1983).

49. United States v. Kincade, 379 F.3d 813, 874 (9th Cir. 2004) (Kozinski, J., dissenting) ("Because the great expansion in fingerprinting came before the modern era of Fourth Amendment jurisprudence ushered in by *Katz v. United States* it proceeded unchecked by any judicial balancing against the personal right of privacy." (internal citation omitted)).

50. One federal district court found pre-conviction DNA extraction unconstitutional in part because the government's identification interest was "nonexistent." Amended Order Denying the Government's Motion to Compel DNA Samples, United States v. Frank, No. CR-09-2075-EFS-1, at 13–14 (E.D. Wash. Mar. 10, 2010), *available at* http://www.dnaresource.com/documents/USvFrank.pdf (noting that witnesses identified Defendants and that both Defendants, after receiving *Miranda* warnings, admitted to participating in the altercation). As a result, the court stated that "if the Government seeks to obtain Defendant's DNA pretrial, the Government must comply with the Fourth Amendment's Warrant Clause." *Id.* at 15.

conviction DNA collection.[51] Moreover, each found that this interest is better served by DNA profiling than by fingerprinting.[52] Indeed, the *Mitchell* majority stated that "the information stored in CODIS serves only an identification purpose," and the district court in *Thomas* declared that the "only privacy interest implicated by the DNA Act is identity."[53]

In coming to this conclusion, the *Mitchell* majority applied an expansive conception of "identification." For the *Mitchell* majority, identity means not just "who that person is (the person's name, date of birth, etc.)" but also includes "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)."[54] Therefore, even when the DNA profile is used to aid in the investigation of the crime for which a person is arrested or to solve unrelated past crimes through CODIS matches, DNA collection solely serves an identification purpose.[55] This expansive characterization allowed the court to accord great weight to the government's need for accurate identification in balancing the competing interests at stake.

But accurate identification by itself (even using *Mitchell*'s unusually broad conception) is not the sole governmental interest identified by the courts that pre-conviction DNA collection serves. On the belief that "it is in the government's interest to have this information as soon as possible," the *Mitchell* majority noted that pretrial DNA extraction also allows more informed decisions about pretrial release to ensure public safety.[56] In addition, courts have noted that collecting and entering DNA profiles into CODIS allows potential suspects to be cleared, preventing dead-end investigations and wrongful accusations.[57]

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51. *Mitchell*, 652 F.3d at 413 (noting that DNA, unlike physical appearance, cannot be altered); *Pool*, 621 F.3d at 1222; United States v. Thomas, No. 10-CR-6172 CJS, 2011 WL 1599641, at *9 (W.D.N.Y. Feb. 14, 2011).

52. *Mitchell*, 652 F.3d at 413 ("DNA profiling is simply a more precise method of ascertaining identity."); *Pool*, 621 F.3d at 1222 (calling DNA "the most accurate means of identification available"); *Thomas*, 2011 WL 1599641, at *9 (noting greater accuracy of DNA over fingerprinting).

53. *Mitchell*, 652 F.3d at 410; *Thomas*, 2011 WL 1599641, at *9.

54. *Mitchell*, 652 F.3d at 414 (quoting Haskell v. Brown, 677 F. Supp. 2d 1187, 1199 (N.D. Cal. 2009)).

55. This crime-solving purpose is largely accomplished through "cold hits," where an individual's DNA profile matches an unknown profile already in the database derived from crime scene evidence. Mnookin, *supra* note 43, at 49–50.

56. *Mitchell*, 652 F.3d at 414–15. Where the *Pool* panel asserted that pretrial DNA collection discourages violations of pretrial release conditions, the *Mitchell* majority proclaimed that any such interest is outweighed by the presumption of innocence. *Id.* at 415 n.25; *Pool*, 621 F.3d at 1223.

57. *Mitchell*, 652 F.3d at 414–15; *Thomas*, 2011 WL 1599641, at *6.

Furthermore, not all agree with the Third Circuit that the purpose of pre-conviction DNA extraction includes "the investigation of the crime of arrest and the solution of any past crime for which there is a match in CODIS."[58] The *Thomas* court, for example, stated that the purpose of collecting a DNA sample is "to obtain identifying information, not to uncover evidence of wrongdoing or solve a particular crime."[59] On the other hand, Congress envisioned pre-conviction DNA collection as a crime-solving tool that would "make it possible to catch serial rapists and murderers [upon arrest, perhaps on an unrelated and minor charge] before they commit more crimes."[60]

In sum, courts give great weight to the governmental interest in accurately identifying arrestees and hail DNA profiling as the best available technology to accomplish that task.

C. Probable Cause Rationale

The individual defendants in *Mitchell*, *Thomas*, and *Pool* had all been indicted by a grand jury for a federal offense.[61] Each court stressed the prior determination of probable cause by a neutral third party as an important factor that both makes an individual's identification a matter of legitimate state interest and all but extinguishes the individual's privacy interest in his identity.[62] Both *Mitchell* and *Pool* added that the grand jury probable cause finding as a precursor to DNA extraction also protects against abuse by individual officers.[63]

The Ninth Circuit expressly limited its now-vacated holding in *Pool* to those situations where there had been a judicial determination of probable cause for a felony charge, calling the magistrate's finding of probable cause a "watershed event."[64] The court reasoned that a third-party probable cause determination allows the government to "impose conditions on an

58. *Mitchell*, 652 F.3d at 414–15.

59. *Thomas*, 2011 WL 1599641, at *6 (citations and internal quotation marks omitted). The court acknowledged, though, that this does result from DNA collection and profiling. *Id.*

60. 151 CONG. REC. S13756 (daily ed. Dec. 16, 2005) (statement of Sen. Jon Kyl).

61. *Mitchell*, 652 F.3d at 412 n.22; *Pool*, 621 F.3d at 1215; *Thomas*, 2011 WL 1599641, at *1.

62. *Mitchell*, 652 F.3d at 412–13; *Pool*, 621 F.3d at 1219, 1223; *Thomas*, 2011 WL 1599641, at *8–9.

63. *See Mitchell*, 652 F.3d at 415 (noting that, "once the Attorney General has determined that DNA must be collected, there is no room for law enforcement officials to exercise (or abuse) discretion by deciding whether or not to collect a DNA sample"); *Pool*, 621 F.3d at 1231–32 (Lucero, J., concurring) (stating that a "judicial probable cause determination limits the opportunities for mischief inherent in a suspicionless search regime" conducted by street officers).

64. *Pool*, 621 F.3d at 1228.

individual that it could not otherwise impose on a citizen."[65] Judge Lucero, writing in concurrence, found "highly significant" the distinction between DNA extraction from those individuals for whom a judicial or grand jury probable cause determination has been made and DNA extraction from "mere arrestees."[66]

The Third Circuit in *Mitchell* did not appear to see the same watershed in the neutral third-party probable cause finding. For it, the watershed is reached earlier, when an individual law enforcement officer has probable cause to arrest. Indeed, the majority suggested that a police officer's probable cause determination would justify DNA collection, stating that "the presence of probable cause to arrest" is one of the foundational principles supporting pre-conviction DNA extraction.[67] Despite its apparent endorsement of probable cause to arrest as sufficient, the majority shied away from actually holding that it is.[68]

To date, no case under federal law has involved pretrial DNA collection before a neutral third party had found probable cause to believe that the person had committed a felony offense. Two cases have addressed the constitutionality of a California state law that requires law enforcement officers to collect DNA samples from all adults arrested for a felony, reaching opposite results.[69]

D. Detention Rationale

Every suspicionless DNA collection case thus far has involved either post-conviction individuals who are in custody or on supervised release,[70] or pre-conviction individuals held pending trial or contesting DNA collection as a condition of pretrial release.[71] The importance of the fact of

65. *Id.* at 1219 (noting electronic monitoring and mandatory curfew as examples).

66. *Id.* at 1231–32 (Lucero, J., concurring).

67. *Mitchell*, 652 F.3d at 411–12.

68. *Id.* at 412 n.22 (expressly not reaching the question of whether officer probable cause to arrest would suffice because the issue was not before it).

69. *See* Haskell v. Harris, No. 3:09-cv-04779-CRB, 2012 WL 589469, at *1 (9th Cir. Feb. 23, 2012), *available at* http://www.ca9.uscourts.gov/datastore/opinions/2012/02/23/10-15152.pdf (finding the California state law requiring felon arrestees to submit to DNA extraction before either a magistrate's determination of probable cause for arrest, or a written accusation by a grand jury charging the arrestee with a public offense constitutional under the Fourth Amendment); People v. Buza, 129 Cal. Rptr. 3d 753, 755 (Ct. App. 2011) (finding the same California law unconstitutional).

70. For some courts, contract theories support DNA collection for individuals on supervised release. *See, e.g.*, United States v. Kimler, 335 F.3d 1132, 1146–47 (10th Cir. 2003) (holding that DNA collection may be a valid condition of supervised release).

71. *Mitchell*, 652 F.3d at 405 ("[T]he challenge currently before us implicates the collection of DNA from an individual who is both an arrestee and a pretrial detainee."); *Pool*, 621 F.3d at 1214–15 (affirming DNA collection as a condition of pretrial release); United States v. Thomas,

custody to the reasonableness of compelled DNA collection is that custody significantly diminishes a person's expectation of privacy.

None of the decisions, however, offers much analysis on this point. For example, no court points out that the heading of the section of the federal statute authorizing DNA collection from arrestees reads: "From individuals in custody," suggesting that the law simply does not apply to non-detained individuals.[72] And while all detainees have reduced privacy interests, the Ninth Circuit's rationale in *Friedman v. Boucher*[73] suggests that pretrial detainees retain greater privacy interests for the purposes of Fourth Amendment analysis than do persons who are incarcerated pursuant to a valid conviction.[74] The closest any decision comes was when the now-vacated *Pool* panel acknowledged that "the particular needs that arise when the government confines an individual" are not present with respect to DNA collection as a condition of pretrial release.[75]

In concluding that pretrial DNA extraction is reasonable under the Fourth Amendment, federal courts endorse the fingerprint analogy and herald the accurate and efficient identification of arrestees to establish a substantial governmental need for DNA collection from arrestees. At the same time, courts emphasize that a judicial or grand jury determination of probable cause and the fact of custody reduce a person's expectation of privacy prior to conviction.

III. A BETTER BALANCING

As hinted at above, the rationales offered by courts in support of compelled pre-conviction DNA extraction are not always consistent or coherent, and they do not cover all of the factual situations that are certain to arise under a statute that requires DNA extraction from anyone arrested. This Part explains how the courts overstate the governmental interest served by pre-conviction DNA extraction and undervalue the privacy interest at stake. As a result, there is a need for a better articulation of an arrestee's expectation of privacy and the government's legitimate interest in collecting DNA from those presumed innocent.

No. 10–CR–6172 CJS, 2011 WL 1599641, at *1 (W.D.N.Y. Feb. 14, 2011) (recommending against disallowing DNA collection as a condition of pretrial release).

72. 42 U.S.C. § 14135a(a)(1) (2006).

73. 580 F.3d 847 (9th Cir. 2009).

74. *Id.* at 857–58 (contrasting the constitutionality of DNA collection under federal law from convicted prisoners with DNA collection from pretrial detainees); *see also* Amended Order Denying the Government's Motion to Compel DNA Samples, United States v. Frank, No. CR-09-2075-EFS-1, at 10 (E.D. Wash. Mar. 10, 2010), *available at* http://www.dnaresource.com/documents/USvFrank.pdf ("Those presumed innocent have an undeniably greater expectation of privacy than the supervised releasees in *Kincade* and *Kriesel*.").

75. *Pool*, 621 F.3d at 1223.

A. Conflating Identification and Investigation

Courts give great weight to the government's interest in accurately establishing the accused's identity and an arrestee's diminished expectation of privacy in her identity that follows arrest and detention.[76] As mentioned above, this reduction of the privacy interest to only encompass identity, however, depends on an "uncommonly capacious definition of identification"[77] that includes within it "what the 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.)."[78]

Simply put, this definition conflates identification and investigation. It uses "identify" not in the sense of identifying the individual before the court, but in the sense of identifying the person who committed the crime. For example, the *Mitchell* majority highlights that "DNA may permit identification in cases without fingerprint or eyewitness evidence."[79] But there is a difference between verifying the identity of an individual who says he is or is not O.J. Simpson, and identifying the person whose DNA was found at the murder scene of Nicole Brown and Ronald Goldman. The former is properly construed as identification, while the latter constitutes law enforcement investigation. In fact, DNA profiling can only confirm the identity of an arrestee if the arrestee's DNA profile is already in CODIS as a known profile. Any match of an arrestee's DNA profile to unknown crime scene DNA profiles does not identify the arrested individual. At the most, it provides evidence for an unrelated crime. Therefore, to the extent that DNA collection facilitates the determination of who did something—which is the vast extent of what DNA profiling is meant to do—it is beyond the normal, booking-related understanding of "identification."

This unusually broad definition of identification casts doubt on the claim that the primary purpose of DNA profiling is to determine the true identity of the arrestee and maintain records of such. First, the government does not turn to CODIS to resolve doubts about the identity of a particular individual under investigation.[80] Next, in the legislative history, DNA

76. *Cf.* United States v. Scott, 450 F.3d 863, 873–74 (9th Cir. 2006) (holding that an arrestee has greater privacy interests than someone who has not been convicted).

77. People v. Buza, 129 Cal. Rptr. 3d 753, 771 (Ct. App. 2011) (discussing *Mitchell*).

78. United States v. Mitchell, 652 F.3d 387, 414 (3d Cir. 2011) (en banc) (quoting Haskell v. Brown, 677 F. Supp. 2d 1187, 1199 (N.D. Cal. 2009)).

79. *Id.* at 413–14.

80. Many procedures are in place to ensure accurate identification, including the identifying information provided by warrant affidavits that support the judicial probable cause finding that the arrestee is the person who committed the alleged crimes, fingerprinting, photographing, verification efforts conducted by pretrial services, and any "identity hearing" conducted pursuant to FED. R. CRIM. P. 5(c)(3)(D)(ii), which requires the government to prove the identity of a person before transfer to another judicial district. Each is directed only to verifying the identity of

collection and profiling was endorsed because it better enabled law enforcement to solve criminal investigations.[81] In congressional debates, legislators stated that the purpose behind adding DNA profiling was "to solve crimes and prevent further crimes,"[82] "to match DNA samples from crime scenes where there are no suspects with the DNA of convicted offenders,"[83] and to be "a huge asset for . . . law enforcers in their day-to-day fight against crime."[84] Thus, the primary purpose of DNA collection is to determine whether the arrestee can be connected to an unsolved crime and to create a databank through which she may be connected in the future to a new offense.

The Third Circuit acknowledges as much, stating that "collecting DNA samples from arrestees can speed both the investigation of the crime of arrest and the solution of any past crime for which there is a match in CODIS."[85] As the *Mitchell* dissenters note, if the government's true interest in arrestee DNA was in accurately determining identity and maintaining records of arrestee identity, then there would be no reason to expunge DNA profiles upon acquittal or the failure to file charges.[86]

Mitchell gives great weight to the investigatory advantage of DNA over fingerprinting but frames it as a matter of mere identification. By restricting the governmental interest to identity, *Mitchell* minimizes the investigatory nature of the search and the scope of the privacy interest at issue, while also giving greater persuasiveness to Fourth Amendment precedent regarding fingerprinting and prison searches than it deserves.

This prominent investigatory purpose of suspicionless, warrantless DNA extraction reduces the force of the courts' assertions that the purpose and relevant privacy interest is only that of identity. A proper balancing would shed the investigatory benefits of DNA collection from the weight accorded to the government need for pretrial DNA collection and acknowledge that a predominant law enforcement investigatory purpose reduces the reasonableness of warrantless compulsory DNA extraction from those presumed innocent.

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the arrestee, not to investigating unsolved crimes for which there is no reason to believe there is any connection to the arrestee.

81. 146 CONG. REC. S11,647 (daily ed. Dec. 6, 2000) (statement of Sen. Patrick Leahy).

82. *Id.* (statement of Sen. Patrick Leahy).

83. 146 CONG. REC. H8575 (daily ed. Oct. 2, 2000) (statement of Rep. Charles Canady).

84. 146 CONG. REC. S11,646 (daily ed. Dec. 6, 2000) (statement of Sen. Michael DeWine).

85. United States v. Mitchell, 652 F.3d 387, 414–15 (3d Cir. 2011) (en banc).

86. *Id.* at 423 (Rendell, J., dissenting) (noting that the statutory provision for expungement "serves as an admission that the fact of *conviction*, not of mere arrest, justifies a finding that an individual has a diminished expectation of privacy in his DNA").

B. *DNA Sample Versus DNA Profile*

Whereas the *Mitchell* majority conflates identification and investigation to find a strong government need that outweighs a diminished privacy expectation, it sharply (and wrongly) dichotomizes the seizure of the DNA sample and the creation of the DNA profile to achieve the same end. In fact, *Mitchell*, *Pool*, and *Thomas* each devote significant space discussing the thirteen non-coding "junk DNA" loci used in the DNA profile, the profile's lack of identifying information, and the protections and penalties in the statute against improper access to or use of the profiles as reasons that the intrusion is not significant.[87] The courts also highlight the law's expungement provision, which requires the deletion of the DNA profile from CODIS upon an arrestee's showing of discharge or acquittal.[88] Each court claims that this diminishes the privacy invasion occasioned by DNA extraction.[89]

Exclusive focus on the DNA profile excludes from the reasonableness inquiry the seizure of the biological sample containing the arrestee's entire human genome. This keeps a significant mass off of the privacy interest side of the reasonableness scale. As these courts acknowledge, there is a "vast amount of sensitive information that can be mined from a person's DNA and . . . very strong privacy interests that all individuals have in this information"[90] But the courts have ignored this privacy intrusion because the information contained in the seized DNA sample is not contained in the DNA profile which is entered into CODIS.[91]

Ignoring the DNA sample matters for more than just grossly undervaluing the privacy invasion that results. No part of the federal law

87. *Id.* at 400–01; United States v. Pool, 621 F.3d 1213, 1221–22 (9th Cir. 2010); United States v. Thomas, No. 10-CR-6172 CJS, 2011 WL 1599641, at *8–9 (W.D.N.Y. Feb. 14, 2011); *see also* 42 U.S.C. § 14133 (2006) (providing a criminal penalty for persons who abuse DNA information). Courts also note the absence of evidence of government foul play with DNA samples as informing their analysis. *See, e.g.*, *Mitchell*, 652 F.3d at 407 ("The mere possibility of such misuse 'can be accorded only limited weight in a balancing analysis that focuses on present circumstances.' " (quoting United States v. Weikert, 504 F.3d 1, 13 (1st Cir. 2007))).

88. § 14132(d); *Mitchell*, 652 F.3d at 400–01; *Pool*, 621 F.3d at 1221–22.

89. *Mitchell*, 652 F.3d at 400–01; *Pool*, 621 F.3d at 1221–22.

90. *Pool*, 621 F.3d at 1229 (Lucero, J., concurring) ("These DNA profiles differ significantly from DNA *samples*. . . . [T]he sample is made up of cells from an individual which contain that person's entire genome. If fully analyzed, a sample would yield far more information than that contained in a CODIS profile, including information about all of the trait-coding DNA in the individual's genome—that is, the precise content of each of her genes."); *Thomas*, 2011 WL 1599641, at *8 (citing United States v. Kincade, 379 F.3d 813, 843 (9th Cir. 2004) (Reinhardt, J., dissenting)).

91. *See, e.g.*, *Mitchell*, 652 F.3d at 407 (rejecting the balancing analysis' potential use of information contained in the DNA sample but not in the DNA profile as both speculative and in violation of statutory safeguards).

mandating DNA extraction requires the destruction of the biological material originally seized. That is, even when an arrestee whose DNA sample has been collected and entered into CODIS is acquitted or no charges are filed, the "[g]overnment retains the DNA sample indefinitely."[92] Moreover, the First Circuit has held that the government may keep a convicted offender's DNA profile in a law enforcement database even after completion of confinement or supervision.[93]

Courts should consider both the DNA sample and the DNA profile derived from it for at least two reasons. First, searches are judged by the full scope of the search, not just the result of the search.[94] DNA collection involves a bodily invasion to extract a biological sample and a subsequent search to analyze the DNA sample and create the DNA profile. As the *Mitchell* dissenters noted, these intrusions occur before the DNA profile is even used.[95] Post-search protections or limitations on the use of seized material do not make an otherwise impermissible search constitutional.[96] Second, a DNA sample contains the entire human genome,[97] and individuals (even those arrested) maintain a high expectation of privacy with respect to their genetic code.[98]

Including the seizure of the DNA sample and its indefinite retention in the reasonableness analysis, rather than only considering the DNA profile, also breaks down the analogy to fingerprints. When the government takes a fingerprint of an arrestee, all the government gets is a fingerprint. It does not retain a biological sample that contains markers for traits including aggression, sexual orientation, and substance addiction.[99] When the government takes a DNA sample, which contains the entire human genome, it has all of this data and can identify individuals related to the

92. *Id.* at 423 (Rendell, J., dissenting); *see also id.* at 424 n.8 ("The statute provides for the expungement of DNA profiles from CODIS under certain circumstances, see 42 U.S.C. § 14132(d)(1), but does not provide any mechanism for the disposal of the DNA samples.").

93. Boroian v. Mueller, 616 F.3d 60, 67–68 (1st Cir. 2010); *see also* United States v. Amerson, 483 F.3d 73, 86 (2d Cir. 2007) ("[I]t is well established that the state need not destroy records of identification—such as fingerprints, photographs, etc.—of convicted felons, once their sentences are up. . . . The same applies to DNA." (citations omitted)).

94. Chimel v. California, 395 U.S. 752, 763 (1969) (holding that a search of a car did not expand law enforcement's authority to search the apartment of the suspect without a warrant). No court would uphold a strip search simply because the government only uses items found under the individual's armpit and behind her ear.

95. *See Mitchell*, 652 F.3d at 422 (Rendell, J., dissenting).

96. *See* United States v. Leon, 468 U.S. 897, 906–07 (1984).

97. United States v. Pool, 621 F.3d 1213, 1229 (9th Cir. 2010) (Lucero, J., concurring).

98. The district court in *Mitchell* held that an arrestee maintains an undiminished expectation of privacy in his genetic code. United States v. Mitchell, 681 F. Supp. 2d 597, 607 (W.D. Pa. 2009).

99. Williamson v. State, 993 A.2d 626, 651 (Md. 2010) (Bell, J., dissenting) ("Fingerprint analysis and DNA analysis, in fact, are not akin to each other.").

arrestee.[100] Fingerprints, on the other hand, "only identify the person who left them."[101]

By concentrating on the DNA profile entered into CODIS, and largely ignoring the potential enormity of the privacy invasion occasioned by the seizure and retention of the biological sample, courts miss the full extent of the seizure that has taken place.[102] As a result, they fail to accurately weigh the competing interests at stake. Were courts to seriously consider in their reasonableness analysis the seizure of the DNA sample and its indefinite retention, the privacy interest at stake would be significantly increased.

C. Privacy Interest in Identity Versus Privacy Interest in DNA

Having identified how courts overvalue the governmental interest furthered by pre-conviction DNA collection, this Section shows how the focus on identity undervalues the scope of the seizure and the privacy interest at stake. When analyzing the privacy interest, courts have only looked to the privacy interest in the identifying information contained in the DNA profile.[103] But this is an oversimplified description of the relevant privacy interest. Properly construed, the privacy interest includes the sum of the information contained in the DNA sample.

Mitchell, *Thomas*, and *Pool* correctly note that arrestees have limited, if any, privacy interest in their identity. But as explained above, the privacy interest implicated by DNA collection is much more expansive than mere identity. The breadth of personal information that can be obtained from a DNA sample significantly increases the privacy interest in the seized sample. The cases largely ignore any impact on a person's privacy interest because of the information contained in the DNA sample, which misconstrues the true interests at stake. The government's retention of the DNA sample, and the possibility that Congress may amend the DNA

100. *See* Murphy, *supra* note 16, at 297, 317.

101. *Mitchell*, 681 F. Supp. 2d at 608. In rejecting the fingerprint analogy, the district court in *Mitchell* stated that "to compare the fingerprinting process and the resulting identification information obtained therefrom with DNA profiling is pure folly. Such oversimplification ignores the complex, comprehensive, inherently private information contained in a DNA sample." *Id.* A California state court that struck down that state's law mandating DNA collection from felon arrestees similarly averred that "the analogy to fingerprints is blind to the nature of DNA." People v. Buza, 129 Cal. Rptr. 3d 753, 768 (Ct. App. 2011).

102. *Williamson*, 993 A.2d at 651 (Bell, J., dissenting) ("[M]erely because DNA records are, at some point, capable of being uploaded and compared for the purpose of identification and its use can be limited to that purpose, does not mean that a warrant is not required for the initial analysis."). The First Circuit held that the government may keep a convicted offender's DNA profile in a law enforcement database even after completion of confinement or supervision. Boroian v. Mueller, 616 F.3d 60, 67–68 (1st Cir. 2010).

103. *See supra* note 91–92 and accompanying text.

collection law at any time to modify permissible uses of already collected samples, heightens the privacy concerns involved.

The indefinite retention of DNA samples and the possibility of advanced technology or legislative change loosening access and use restrictions mean that the potential privacy invasion is huge. The *Mitchell* majority admits that the indefinite retention of the DNA sample implicates privacy concerns, but then dismisses the concern as irrelevant with some astounding logic: because Mitchell's DNA sample has not yet been collected and he therefore has not sought expungement, the court notes, "he is not in a position to challenge the retention of his sample."[104] But Mitchell was not seeking to challenge the retention of his DNA sample—he simply wanted the court to consider its indefinite retention as it balanced the governmental interest and the privacy intrusion. It is not clear why the privacy concerns about DNA collection can be wholly separated from the privacy concerns related to the indefinite retention of the thing seized.

The possibility of familial match searching, which uses partial DNA profile matches to find potential relatives of the source DNA, further heightens the privacy interest in DNA.[105] Familial matching was made famous by its successful application in the "Grim Sleeper" murder investigation in Los Angeles, when the database identified a potential match between crime scene DNA evidence and a recently convicted offender.[106] The partial match suggested that the convicted offender was the murder suspect's son.[107] This led police to the suspect, and a DNA sample surreptitiously recovered from a piece of pizza discarded by the suspect matched crime scene DNA evidence.[108] In a related vein, federal authorities failed in an attempt to obtain DNA evidence from individuals living in an Abbottobad, Pakistan, compound prior to the raid that killed Osama bin Laden in the hope that they could match it with DNA samples from other members of the bin Laden family already on file at the CIA.[109] These types of investigation, which simply cannot be done with fingerprints, raise

104. United States v. Mitchell, 652 F.3d 387, 412 (3d Cir. 2011) (en banc).

105. *See* Murphy, *supra* note 16, at 336–37.

106. Greg Miller, *Scientists Explain How Familial DNA Testing Nabbed Alleged Serial Killer*, SCIENCE (July 12, 2010, 1:18 PM), http://news.sciencemag.org/scienceinsider/2010/07/scientists-explain-how-familial.html.

107. *Id.*

108. *Id.*

109. *CIA Organized Fake Vaccination Drive To Get Osama Bin Laden's Family DNA*, THE GUARDIAN (July 11, 2011), http://www.guardian.co.uk/world/2011/jul/11/cia-fake-vaccinations-osama-bin-ladens-dna.

serious privacy concerns.[110] Nevertheless, the *Mitchell* majority dismisses familial matching as irrelevant to the reasonableness inquiry.[111]

By ignoring the privacy interest that individuals maintain in their DNA sample and entire genetic code, courts undervalue the privacy intrusion occasioned by compelled pre-conviction DNA extraction.

D. Probable Cause To Arrest Versus Neutral Third-Party Probable Cause

As mentioned above, each of the federal courts to address pre-conviction DNA collection from arrestees considers the judicial or grand jury determination of probable cause to be significant to its Fourth Amendment analysis. These same courts make much of the analogy between DNA profiling and fingerprinting. These two rationales are inconsistent, if not in competition. Probable cause found by police to justify an arrest suffices to permit the collection of fingerprints as part of the routine booking procedure. If DNA collection is just like fingerprinting, the watershed has already been reached.

But as argued above, the fingerprint analogy is flawed. Moreover, courts have expressed concern with trusting individual officers on the street. In his concurrence in *Pool*, Judge Lucero acknowledged that permitting programmatic searches in the absence of particularized suspicion introduces "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 pretrial releasees."[112] The racial bias in the criminal justice system heightens this concern of misuse.[113] DNA collection triggered by any arrest quickly leads to a DNA database of men of color.[114]

Giving weight to the third-party probable cause finding concedes that the search is more invasive than fingerprinting and that it is about much more than just identification. Courts must be analytically honest and either not require third-party probable cause on the basis that DNA profiling truly is no different in scope or kind from fingerprinting, or insist on third-party

110. Murphy, *supra* note 16, at 313–19 (identifying the privacy concerns raised by familial matching for the databased person, innocent relatives, and the source).

111. United States v. Mitchell, 652 F.3d 387, 409 (3d Cir. 2011) (en banc) ("[T]he possibility of an unintentional or intentional CODIS 'hit' for Mitchell's biological relatives does not change our analysis.").

112. United States v. Pool, 621 F.3d 1213, 1232 (9th Cir. 2010) (Lucero, J., concurring).

113. Murphy, *supra* note 16, at 231 (discussing problems with actual and apparent ethnic discrimination).

114. *Id.*

probable cause and accept that it destroys the DNA profiling-fingerprint analogy for Fourth Amendment purposes.

IV. LOOKING AHEAD

The extant case law on pre-conviction DNA collection is quite limited. Courts have not yet confronted a broad range of situations under which the statute and regulations mandate DNA collection from arrestees. The case universe leaves unaddressed at least four issues related to compulsory DNA collection from arrestees. A cursory look ahead reveals that these issues quickly strain the current rationales and cast serious doubt on the constitutionality of the broadly worded statute.

A. Non-Detained Individuals

The heading of the section of the federal law authorizing DNA collection from individuals arrested is "From individuals in custody."[115] Because all of the published cases have involved detained individuals, either held pretrial or seeking pretrial release, no court has said whether individuals who are not in custody can be compelled to provide a DNA sample. Does "custody" mean held in a jail or prison, or does it include detention associated with arrest? Can the Government draw DNA from someone who was arrested and released, either with or without charges? Could the Government compel DNA extraction during the arrest, but lose that power after release? Does the expectation of privacy differ dramatically for a person held in custody versus someone who is released? Since the diminished privacy interest comes from both an involvement in criminal justice system and the fact of detention, it is not clear whether involvement in the criminal justice system is sufficient by itself to make DNA extraction from those presumed innocent reasonable under the Fourth Amendment.

B. Probable Cause To Arrest

Both *Mitchell* and *Pool* disclaim deciding whether probable cause is sufficient to justify compelled DNA extraction at booking. The Ninth Circuit's "watershed event" language from *Pool* and concern about individual officer abuse suggest that DNA extraction only on probable cause to arrest would not pass constitutional muster. Yet, the analogy of DNA profiling to fingerprinting would suggest that the difference between probable cause to arrest and neutral third-party probable cause has no constitutional meaning. Courts will have to resolve this apparent tension in

115. 42 U.S.C. § 14135a(a)(1) (2006).

the case law. In *Haskell v. Harris*,[116] a case upholding a California state law requiring felon arrestees to submit to DNA extraction immediately following arrest or during booking, the Ninth Circuit resolved the tension by eliminating it, finding DNA collection before a neutral third-party probable cause determination to be reasonable under the Fourth Amendment.[117] Whether similar challenges by unindicted federal arrestees are resolved similarly remains to be seen.

C. Misdemeanor Arrestee

The *Mitchell* majority noted a "potential cause for concern with regard to the scope and breadth" of the DNA law because it applies equally to individuals arrested for federal misdemeanors.[118] The ultimate question that courts will have to answer is whether DNA extraction and profiling can become a routine part of the booking procedure upon arrest, whatever the basis of the arrest. A misdemeanor-only federal criminal case is admittedly rare, and no published case has yet to address DNA extraction from such an individual. The critical difference between those charged with a misdemeanor and those charged with felonies is the lack of an indictment, and thus the lack of a neutral third party finding of probable cause. For a regime that began as compelling DNA extraction only from those convicted of sex crimes and violent felonies, the jump all the way to DNA extraction from a presumed-innocent person arrested on a misdemeanor is significant. Courts addressing DNA collection from an individual arrested for only a federal misdemeanor would have to determine, among other things, whether misdemeanor arrestees have more of a privacy interest in their DNA than felony arrestees, and whether the analogy of DNA collection to fingerprinting is a perfect one.

D. Indefinite Retention of DNA Sample

While the law requires expungement of DNA profiles for those who are not charged, who are acquitted, or whose convictions are overturned,[119] the law does not address storage of DNA samples for those individuals or for those who have successfully completed their sentences. The First

116. Haskell v. Harris, No. 3:09-cv-04779-CRB, 2012 WL 589469 (9th Cir. Feb. 23, 2012), *available at* http://www.ca9.uscourts.gov/datastore/opinions/2012/02/23/10-15152.pdf.

117. *Id.* at *1.

118. United States v. Mitchell, 652 F.3d 387, 416 n.26 (3d Cir. 2011) (en banc).

119. § 14132(d)(1)(A)(i) (requiring expungement upon submission of a certified copy of a final court order establishing that the conviction has been overturned); § 14132(d)(1)(A)(ii) (requiring expungement upon submission of a certified copy of a final court order establishing that the charge has been dismissed or has resulted in an acquittal or that no charge was filed within the applicable time period).

Circuit held that the government may keep a convicted offender's DNA profile in a law enforcement database even after completion of confinement or supervision, noting that fingerprints and mugshots are routinely retained by the government after sentences are completed.[120] Whether the same result would follow for individuals who were arrested but acquitted, had their conviction overturned, or were never charged, remains to be seen. To be sure, the indefinite retention poses significant privacy concerns since, as Judge Easterbrook posited, "the Fourth Amendment does not control how properly collected information is deployed."[121] Amendments to current legislative restrictions on access to and use of DNA samples could create a lifetime of privacy invasions for individuals who were acquitted or never even charged with a crime after arrest.

CONCLUSION

Courts analyzing pre-conviction DNA extraction have offered competing rationales, conflated identification with investigation, and largely ignored the seizure and indefinite retention of the DNA sample in making their reasonableness determination. In addition, a host of factual scenarios under which the statute mandates pre-conviction DNA extraction have yet to reach any court. As a result, the constitutionality of the practice remains unsettled despite the near unanimity in the case law.

This analysis suggests that the proper assessment of the totality of the circumstances would reduce the weight accorded to the government need for a DNA sample in the period between arrest and conviction and increase the weight of the privacy interest in one's DNA. This recalibrated balancing would likely produce different outcomes for pre-conviction DNA collection than those issued so far. At the least, pre-conviction DNA extraction should be permitted only after a neutral third-party finding of probable cause. This would assure the legitimacy of the governmental interest in the individual and protect against abuse. Further, the DNA sample should be destroyed after analysis is complete (or at the close of the case).[122] Since the government only requires the non-coding thirteen junk loci to achieve its identification purpose, it does not need to retain the DNA sample and the extensive genetic coding contained within it. If the arrestee is not charged or found not guilty of a crime, the government has no need

120. Boroian v. Mueller, 616 F.3d 60, 67 (1st Cir. 2010); *see also* United States v. Amerson, 483 F.3d 73, 86 (2d Cir. 2007) ("[I]t is well established that the state need not destroy records of identification—such as fingerprints, photographs, etc.—of convicted felons, once their sentences are up. . . . The same applies to DNA." (citations omitted)).

121. Green v. Berge, 354 F.3d 675, 680 (7th Cir. 2004) (Easterbrook, J., concurring).

122. Only one jurisdiction, Wisconsin, currently requires the government to destroy the sample after analysis has been performed. WIS. STAT. ANN. § 165.77(3) (West 2011).

for or right to the DNA sample. For those found guilty, the government can compel another sample should it need one.

By design, the Fourth Amendment denies to government "desired means, efficient means, and means that must inevitably appear from time to time throughout the course of centuries to be the absolutely necessary means, for government to obtain legitimate and laudable objectives."[123] As attractive as DNA profiling appears, that attractiveness must not disturb the appropriate balancing of the government need for DNA samples from those presumed innocent and the privacy interest of the presumed innocent in their genetic tissue.

123. Anthony G. Amsterdam, *Perspectives on the Fourth Amendment*, 58 MINN. L. REV. 349, 353 (1974).