RELATIVE SUSPICION

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When the FBI's DNA database returns no match for a crime-scene sample, law enforcement has learned to look elsewhere—to the private databases built by people who simply wanted to know where their families came from.

Forensic investigative genetic genealogy ("FIGG") is one of the most compelling investigative tools ever developed, but what makes it compelling is also what makes it problematic. The more cases it solves, the greater the pressure to expand its use, and the less inclined anyone becomes to ask whether that use is governed by appropriate accountability structures. Traditional criminal investigation proceeds from suspicion of a particular person. FIGG proceeds instead through the genetic information of relatives, and, in most states, operates within very few boundaries.

This Note offers the first comprehensive analysis of how states are currently approaching FIGG and argues that every existing approach fails for a different intrinsic reason. In response, it proposes the Model FIGG Act, a framework built around judicial authorization, enforceable remedies, and independent oversight. The Act does not solve every issue that this Note identifies, but the choice states face is not between the Act and a perfect solution because such a solution does not exist. States' choice is between acting and adhering to a status quo in which a powerful technique reaches a web of people without transparency, oversight, or meaningful accountability.

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INTRODUCTION

In the 1970s and 1980s, Californians lived in fear of a violent offender who struck repeatedly across the state, committing at least 13 murders and more than 50 rapes while eluding capture at every turn.[1] In 2018, investigators finally cracked the case, bringing justice to the many victims of Joseph DeAngelo—the Golden State Killer.[2] While his arrest marked the triumphant end of a nearly half-century cold case that had traumatized communities and shattered families, it also introduced the public to a powerful new investigative technique[3]—forensic investigative genetic genealogy ("FIGG").[4] That same technique returned to national attention in 2022

1. *See* Emily Shapiro, *The 'Golden State Killer': Inside the Timeline of Crimes*, ABC NEWS (Oct. 30, 2020, at 06:39 MT), https://abcnews.go.com/US/inside-timeline-crimes-golden-state-killer/story?id=54744307 [https://perma.cc/UB5Y-SKJY].

2. *See* CLUES POD WITH MORGAN ABSHER & KAELYN MOORE, *He Terrorized California Under Different Names: Golden State Killer*, at 1:01:22–1:04:34 (YouTube, Apr. 30, 2025), https://www.youtube.com/watch?v=rO5MqfDjefA (on file with *Arizona Law Review*).

3. *See* Vera Eidelman, *The Creepy, Dark Side of DNA Databases*, WASH. POST (May 8, 2018), https://www.washingtonpost.com/opinions/the-creepy-dark-side-of-dna-databases/2018/05/08/279e9c2c-5230-11e8-abd8-265bd07a9859_story.html [https://perma.cc/W8SV-BZCB].

4. While sources refer to FIGG by various other names—including investigative genetic genealogy, forensic genetic genealogy, and forensic genetic genealogical DNA

when law enforcement arrested Bryan Kohberger for the University of Idaho murders just seven weeks after four college students were stabbed to death in their home.[5]

For all the attention these cases drew, the technique behind them is often misunderstood, beginning with FIGG's name.[6] Genealogy is the study of tracing a person's ancestors using public records and other documents.[7] Genetic genealogy combines traditional genealogy with DNA, which allows genealogists to fill in gaps in a family tree when there are missing links in the paper trail.[8] Forensic genetic genealogy specifically applies the method to provide genealogical evidence for use in court.[9] And forensic investigative genetic genealogy narrows the purpose one step further: where forensic genetic genealogy might be used for another purpose like identifying unidentified human remains, the investigative qualifier signals a focus on generating leads to catch criminals.[10]

FIGG works by comparing a genetic profile developed from crime-scene DNA with the profiles of biological relatives[11] who have participated in

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analysis and searching—I will refer to it as forensic investigative genetic genealogy or FIGG, which specifically encompasses law enforcement's use of consumer genetic genealogy databases and traditional genealogical research to identify suspected perpetrators in criminal investigations. For a more robust discussion on terminology, see Oliver M. Tuazon et al., *Law Enforcement Use of Genetic Genealogy Databases in Criminal Investigations: Nomenclature, Definition and Scope*, 8 FORENSIC SCI. INT'L: SYNERGY, Feb. 8, 2024, at 1–2, https://www.sciencedirect.com/science/article/pii/S2589871X2400007X [https://doi.org/10.1016/j.fsisyn.2024.100460].

5. *See* Emily Shapiro, *Idaho College Murders: Here's the Full Timeline of Events Surrounding Bryan Kohberger's Killings*, ABC NEWS (Sep. 5, 2025, at 06:20 MT), https://abcnews.go.com/US/idaho-college-murders-timeline-events/story?id=93575278 [https://perma.cc/84HP-WWNX].

6. For example, many sources discuss familial DNA searches interchangeably with FIGG. *See, e.g.*, Jamie M. Zeevi, *DNA Is Different: An Exploration of the Current Inadequacies of Genetic Privacy Protection in Recreational DNA Databases*, 93 ST. JOHN'S L. REV. 767, 768–69 (2019). Although FIGG involves an intentional search for familial relationships, familial DNA searches have been around longer than FIGG and more accurately consist of an intentional search for a partial match in a state or local DNA database using short tandem repeats ("STRs"). *See* Henry T. Greely et al., *Family Ties: The Use of DNA Offender Databases to Catch Offenders' Kin*, 34 J.L. MED. & ETHICS 248, 251 (2006).

7. Tuazon et al., *supra* note 4, at 6.

8. *Investigative Genealogist Answers DNA Questions*, WIRED TECH SUPPORT, at 4:21–5:07 (YouTube, June 9, 2026), https://youtu.be/yxv4-W1nm4U (on file with *Arizona Law Review*).

9. *Cf.* Tuazon et al., *supra* note 4, at 6 (defining forensic genetic genealogy as "the use by law enforcement of genetic genealogy combined with traditional genealogy to generate suspect investigational leads from forensic samples in criminal investigations"); *Forensic*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/dictionary/forensic_adj?tab=meaning_and_use [https://perma.cc/RTL7-NTLH] (last visited Aug. 20, 2026) ("Providing medical, scientific, or technical evidence in legal proceedings and the investigation of crime; designating such evidence; of or relating to such evidence.").

10. *See* Tuazon et al., *supra* note 4, at 6.

11. These genetic relatives are sometimes referred to as "genetic witnesses" or "genetic informants." *See, e.g.*, Teneille R. Brown, *Why We Fear Genetic Informants: Using*

direct-to-consumer ("DTC") genetic testing.[12] Millions of Americans have taken DNA tests through a DTC company like Ancestry or 23andMe to explore their family histories.[13] Many of these users later opt in to law enforcement matching on platforms like FamilyTreeDNA or GEDmatch, creating vast databases of genetic information that law enforcement can use to solve cases.[14] Currently, these DTC databases provide access to far more genetic matches than federal or state databases could provide alone,[15] but this same feature that makes FIGG useful also makes it unsettling. A 2021 survey found that roughly 70% of U.S. citizens viewed the government's use of DTC databases to generate investigative leads as intrusive.[16] In the years since, consumers have become increasingly aware that their genetic information has little legal protection.[17] For example, 23andMe suffered a data

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Genetic Genealogy to Catch Serial Killers, 21 COLUM. SCI. & TECH. L. REV. 118, 121 (2020) ("A relative's genetic data can act as a silent witness, or genetic informant, against the person who left the DNA at the crime scene. This 'genetic informant' wordlessly guides law enforcement to a handful of potential suspects . . . .").

12. Dorothy McGee, *The Wild West of Investigatory Genetic Genealogy: The Impact of the Use of Investigatory Genetic Genealogy in the Idaho Murders on the Future of Criminal Investigations and the Need for Regulation*, 24 N.C. J.L. & TECH. 31, 33 (2023).

13. Jamie Ducharme, *Millions of Americans Could Be Identified Using Consumer Genetic Databases—Even if They've Never Taken a DNA Test*, TIME (Oct. 12, 2018, at 12:49 MT), https://time.com/5423170/dna-test-identify-millions/ [https://perma.cc/LL4P-QQP3].

14. *See* Christi J. Guerrini et al., *Four Misconceptions About Investigative Genetic Genealogy*, 8 J.L. & BIOSCIENCES 1, 15–16 (2021). This popularity has also led to an aftermarket of sorts, in which new companies have begun to offer services specifically for solving cold cases and identifying victims. *See, e.g.*, OTHRAM INC., https://othram.com/ [https://perma.cc/FD9Z-9V77] (last visited Jan. 8, 2026); PARABON NANOLABS, INC., https://parabon-nanolabs.com/ [https://perma.cc/C582-WAKF] (last visited Jan. 8, 2026).

15. *See* Claire L. Glynn, *Bridging Disciplines to Form a New One: The Emergence of Forensic Genetic Genealogy*, 13 GENES, Aug. 1, 2022, at 1, https://www.mdpi.com/2073-4425/13/8/1381 [https://doi.org/10.3390/genes13081381].

16. Sonia M. Suter, Erin E. Murphy & Natalie Ram, *Maryland Can Be a Model for Regulating Law Enforcement Use of Genetic Databases*, WASH. POST (June 18, 2021), https://www.washingtonpost.com/opinions/2021/06/18/maryland-genetic-databases-law-enforcement-regulation-model/ [https://perma.cc/MUB7-2WEV]; *see also* James W. Hazel & Christopher Slobogin, *"A World of Difference"? Law Enforcement, Genetic Data, and the Fourth Amendment*, 70 DUKE L.J. 705, 715–16 (2021) (conducting a survey of 1,597 participants and finding that the primary determinant in privacy expectations over genetic information was the location of the information). *But see* Christi J. Guerrini et al., *FIGG at 5: An Update on U.S. Public Perspectives on Forensic Investigative Genetic Genealogy Five Years After Its Introduction to Criminal Investigations*, 367 FORENSIC SCI. INT'L, Jan. 17, 2025, at 3, https://www.sciencedirect.com/science/article/pii/S0379073825000106 [https://doi.org/10.1016/j.forsciint.2025.112372] (finding that 91% of respondents supported FIGG use for finding the perpetrator of a violent crime and 57% supported FIGG use for identifying perpetrators of nonviolent crimes).

17. For example, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") does *not* apply to DTC companies. *See* Pub. L. No. 104-191, 100 Stat. 1936 (codified as amended in scattered sections of 18 U.S.C., 26 U.S.C., 29 U.S.C., and 42 U.S.C.). However, a 2020 survey indicated that 52% of people believe that HIPAA protects the results of DTC testing kits. CONSUMER REPORTS, HOME GENETIC TESTING: A NATIONALLY REPRESENTATIVE MULTI-MODE SURVEY OCTOBER 2020 RESULTS 5 (Oct. 2020),

breach in 2023, exposing the health information of nearly 7 million consumers.[18] It then filed for bankruptcy in 2025, raising serious questions about the protection of consumers' genetic information.[19]

Against that backdrop, the Golden State Killer and Bryan Kohberger cases brought a further use of consumers' genetic profiles into public view, this time by law enforcement rather than the companies themselves.[20] The attention both cases drew reflects a broader cultural fascination with criminal investigations that the modern true-crime genre has shaped.[21] Over half the American population reports consuming true-crime content in some form.[22] While this fascination with real crime is hardly new,[23] recent advances in social and digital media have made engagement with criminal investigations substantially more accessible and participatory.[24] The modern media landscape both responds to and shapes public interest,[25] turning

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https://article.images.consumerreports.org/prod/content/dam/surveys/Consumer%20Reports%20Home%20Genetic%20Testing%20October%202020 [https://perma.cc/L8LQ-2LQP].

18. *See* Alaina Demopoulos, *'There Are No Serious Safeguards': Can 23andMe Be Trusted with Our DNA?*, GUARDIAN (Feb. 17, 2024, at 12:00 ET), https://www.theguardian.com/technology/2024/feb/17/23andme-dna-data-security-finance [https://perma.cc/V48K-KCUC].

19. *See* Joe Hernandez, *23andMe Is Filing for Bankruptcy. Here's What It Means for Your Genetic Data*, NPR (Mar. 24, 2025, at 20:00 ET), https://www.npr.org/2025/03/24/nx-s1-5338622/23andme-bankruptcy-genetic-data-privacy [https://perma.cc/YUT4-J6KR].

20. *See supra* notes 1–3, 5 and accompanying text.

21. *See* David Costello, *Un-Making a Murderer: New True Crime Sensationalism and the Criminal Justice System*, 55 AM. CRIM. L. REV. ONLINE 77, 85–86 (2018).

22. Bryn Healy, *True Crime: How Does the Genre Affect Americans?*, YOUGOV (July 22, 2024, at 02:50 GMT), https://today.yougov.com/entertainment/articles/50142-true-crime-how-it-affects-americans [https://perma.cc/B7FP-D7ZL]. Women appear especially drawn to true crime, which some researchers suggest helps them confront fears of violence and prepare for danger. *See* Jillian Gray, *The True Crime Genre Is Popular, but Is It Ethical?*, U. OR. SCH. JOURNALISM & COMMC'N (Aug. 28, 2023), https://journalism.uoregon.edu/news/true-crime-genre-ethics [https://perma.cc/2SZ2-XU74].

23. Historians argue that Victorians followed murders with an enthusiasm comparable to that of modern audiences. *See* Anne-Marie Kilday, *Constructing the Cult of the Criminal: Kate Webster – Victorian Murderess and Media Sensation*, *in* LAW, CRIME AND DEVIANCE SINCE 1700, at 125, 129 (2016) ("[A] typical homicide trial during the Victorian period could result in around 500,000 copies of the trial proceedings being produced by London printers alone.").

24. *See, e.g.*, Madyline Swearing, *Why We're So Fascinated with True Crime Stories, and How It May Be Impacting Our Well-Being*, THE BRINK (Aug. 11, 2025), https://www.bu.edu/articles/2025/why-were-fascinated-true-crime-stories/ [https://perma.cc/VU49-9K7G].

25. *See* Mallorie Margaret Latora, Netflix and Kill: A Framing and Uses and Gratifications Comparative Analysis of Serial Killer Representations in the Media 15–30 (2020) (M.S. thesis, Illinois State University), https://ir.library.illinoisstate.edu/etd/1296/ [https://doi.org/10.30707/ETD2020.1606247535.292018av]; *cf.* BREAKFAST SERIAL, *Did the Media Create and Kill Serial Killers?*, at 1:51–2:26 (YouTube, Dec. 6, 2025), https://www.youtube.com/watch?v=5aKtyFf0_ck (on file with *Arizona Law Review*) (discussing a theory that the media both documented and created serial killers).

passive consumers into active participants.[26] And as technologies for solving crimes become more sophisticated and visible,[27] public appetite for those techniques only grows.[28] That appetite has consequences for how new investigative technologies like FIGG get regulated because enthusiasm for their results creates pressure to expand their use before anyone has seriously grappled with the costs.

At its core, FIGG embodies the central conflict in modern criminal procedure between the government's interest in solving crime and society's interest in meaningful checks on government power.[29] FIGG can provide answers to families who have waited decades for justice.[30] However, because the technique relies on the genetic information of relatives who participated in genetic testing for a much different purpose,[31] its promise is inseparable from the privacy, consent, and accountability concerns that its use inevitably raises.[32]

Recently, states have begun to respond to these tensions, but they have done so inconsistently.[33] More importantly, the three approaches that have emerged each fail for a different intrinsic reason.[34] First, states that directly regulate law enforcement's use of FIGG confront privacy concerns, but any protection that a state gives its citizens becomes ineffectual when an investigation crosses state lines.[35] Second, states that regulate indirectly through DTC companies attempt to solve the problem by relying on consumer consent, but consent only goes so far when one person's decision to participate in a genealogy database effectively binds every biological relative they have.[36] Third, the majority of states, having done little or

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26. *See* Kathryn D. Coduto, *Compulsive Use of Social Media in Emerging Crime News Stories: Perceived Channel Affordances and Forensic Fandom*, 14 PSYCH. POPULAR MEDIA 593, 594–95, 599 (2025), https://psycnet.apa.org/record/2026-08557-001 [https://doi.org/10.1037/ppm0000603].

27. *Cf.* Donald E. Shelton, *Juror Expectations for Scientific Evidence in Criminal Cases: Perceptions and Reality About the "CSI Effect" Myth*, 27 THOMAS M. COOLEY L. REV. 1, 23 (2011) (describing the "tech effect," in which public awareness of the use and availability of modern technology increases juror expectations).

28. *Cf.* CLUES POD WITH MORGAN ABSHER & KAELYN MOORE, *The DNA Evidence That Finally Exposed Jeanie Childs' Killer*, at 37:54–41:07 (YouTube, Oct. 22, 2025), https://youtu.be/parGrWB23gQ (on file with *Arizona Law Review*) (describing FIGG as a "miracle"). For more on the case arising from this investigation, see *infra* notes 191–92 and accompanying text.

29. *See* Craig M. Klugman & Hector F. Rodriguez, *Ethics of Familial Genetic Genealogy: Solving Crimes at the Cost of Privacy*, 22 DEPAUL J. HEALTH CARE L. 67, 92 (2021).

30. *See supra* notes 1–3 and accompanying text. Perhaps unsurprisingly, however, not every use of FIGG is so benevolent. *See generally* Dara Gell, *Cold Case Pregnancy Criminalization: How Forensic Investigative Genetic Genealogy Is Used to Prosecute Mothers for Decades-Old Stillbirths*, 53 HARBINGER 46 (2026) (describing how FIGG has been used in over 60 investigations and 34 prosecutions to criminalize parents for decades-old stillbirths).

31. *See infra* Section I.C.

32. *See infra* Part IV.

33. *See infra* Part III.

34. *See infra* Part IV.

35. *See infra* Sections III.A, IV.A.

36. *See infra* Sections III.B, IV.B.

nothing to regulate FIGG, have implicitly assumed that existing Fourth Amendment doctrine provides a sufficient oversight mechanism to monitor misuse, but that assumption fails because the Fourth Amendment was not designed to accommodate technology that can search thousands of potential relatives' information at once.[37]

This Note is the first to comprehensively analyze how states are currently approaching FIGG. Existing scholarship has focused largely on the small number of states that have enacted statutes explicitly restricting law enforcement's use of the technique, while paying less attention to the broader range of state responses. Further, as informed by the nationwide survey of existing law, this Note contributes to the scholarship in this area by proposing a path forward. Specifically, it offers a model statute—"the Model FIGG Act"—which responds to the gaps in current state approaches and identifies the key considerations that should be addressed when formulating policy.

Part I outlines a brief history of forensic evidence and explains how DNA matching works. Part II examines three doctrinal areas that are commonly thought to provide limitations on FIGG's use—the Fourth Amendment, property law, and contract law—and explains why these areas provide little protection for the concerns FIGG implicates. Part III provides the first comprehensive nationwide survey of current state approaches, drawing on statutes, case law, and trial court orders. Part IV exposes the intrinsic limitations of each regulatory approach and argues that state-by-state regulation is inadequate because FIGG inevitably produces investigations with interstate spillover, rests on a fiction of consumer consent, and leaves accountability concerns unaddressed. Part V then lays out the Model FIGG Act. While the Model FIGG Act may not completely resolve the issues identified in Part IV, it targets many weaknesses and provides workable solutions to core concerns.

On balance, FIGG is undoubtedly a valuable investigative tool that should remain available to law enforcement, but the structure of current law fails to meaningfully confront the privacy, consent, and accountability concerns its use raises. These are concerns that risk being further eroded by a cultural appetite for FIGG's results that outpaces any serious engagement with its costs. Regulating FIGG is not about choosing personal privacy over justice—it is about obtaining justice through legitimate, accountable avenues.

37. *See infra* Sections III.C, IV.C.

I. THE FOUNDATION OF FORENSICS AND THE RISE OF GENETIC INFORMATION

Forensic DNA analysis is now widely regarded as one of the most reliable forms of evidence,[38] but even DNA's reliability has limits that are easy to understate.[39] FIGG earns its reputational power from the scientific credibility of DNA evidence, yet its application still depends heavily on human interpretation at every stage of the process.[40] As a result, FIGG remains vulnerable to some of the same reliability concerns that other forensic methods have long confronted.[41] This Part briefly traces the evolution of forensic evidence and explains how DNA identifies genetic relationships.

A. A Brief History of Forensic Methods in Criminal Investigations

DNA profiling is far from the first forensic method used in criminal investigations. Fingerprint identification once occupied the position that DNA evidence holds today, widely considered the "gold standard" of criminal forensics and uniquely reliable in a way that earlier techniques were not.[42] Every person has unique fingerprints, even identical twins who share the same DNA,[43] and records of fingerprint identification date back as far as 300 BC.[44] Courts in the United States first admitted fingerprint evidence in a criminal trial in 1910, and the technique quickly became the cornerstone of criminal investigations.[45] But fingerprinting is not without error.[46] The technique often depends on human judgment—for example,

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38. *See* Jonathan Jones, *Forensic Tools: What's Reliable and What's Not-So-Scientific*, PBS: FRONTLINE (Apr. 17, 2012), https://www.pbs.org/wgbh/frontline/article/forensic-tools-whats-reliable-and-whats-not-so-scientific/ [https://perma.cc/Y65K-VZS7].

39. *See infra* Section I.D.

40. *See infra* notes 95–97 and accompanying text.

41. *See infra* Sections I.A, I.D.

42. Michael Lynch, *Science, Truth, and Forensic Cultures: The Exceptional Legal Status of DNA Evidence*, 44 STUD. HIST. & PHIL. BIOLOGICAL & BIOMEDICAL SCIS. 60, 60 (2013).

43. Global Forensic and Justice Center, *How It's Done*, A SIMPLIFIED GUIDE TO FINGERPRINT ANALYSIS (2013), https://www.forensicsciencesimplified.org/prints/how.html [https://perma.cc/XL6X-66AK] (detailing three fingerprint categories: (1) three-dimensional fingerprints left behind on soft surfaces; (2) visible fingerprints left behind when blood, dirt, or another substance is transferred to a surface; and (3) latent or invisible fingerprints left behind when the body's sweat or natural oils are transferred to a surface).

44. Jeffery G. Barnes, *History*, *in* THE FINGERPRINT SOURCEBOOK 1:5, 1:7 (2011), https://www.ojp.gov/pdffiles1/nij/225320.pdf [https://perma.cc/453N-7A7B].

45. Francine Uenuma, *The First Criminal Trial That Used Fingerprints as Evidence*, SMITHSONIAN MAG. (Dec. 5, 2018), https://www.smithsonianmag.com/history/first-case-where-fingerprints-were-used-evidence-180970883/ [https://perma.cc/29K6-D2WQ]; *cf.* Karen Cormier, Lisa Calandro & Dennis Reeder, *Evolution of DNA Evidence for Crime Solving–A Judicial and Legislative History*, FORENSIC MAG., June–July 2005, at 1 (explaining that the judicial system scrutinized DNA evidence as technology developed because of the relative newness of the methodology).

46. Jamie Walvisch, *Fingerprinting to Solve Crimes: Not as Robust as You Think*, THE CONVERSATION (Oct. 23, 2017, at 15:07 ET), https://theconversation.com/fingerprinting-to-solve-crimes-not-as-robust-as-you-think-85534 [https://perma.cc/6J7E-LXG4].

in comparing partial or degraded prints—leaving room for cognitive bias and mistaken identification.[47]

Blood typing followed a similar arc. Beginning in the early 1900s, scientists used blood samples found at crime scenes to compare a suspect's blood type against that of the forensic sample.[48] This technique proved useful for eliminating suspects but could not uniquely identify an individual.[49] Blood types are shared by large portions of the population, making it impossible to establish guilt beyond a reasonable doubt from a blood-type match alone.[50]

Then in 1984, Dr. Alec Jeffreys discovered that every person's DNA contains repeating patterns that vary between individuals, enabling scientists to distinguish between people with remarkable accuracy.[51] Shortly after this discovery, Dr. Jeffreys helped exonerate an innocent man and identify the true perpetrator in a murder case, demonstrating DNA's potential as a powerful investigative tool.[52] DNA analysis offered a significant improvement over earlier techniques because it decreased subjective interpretation and provided far greater individual specificity.[53]

B. The Structure and Function of DNA

A basic understanding of how DNA functions helps illustrate the concerns FIGG raises. Most cells in the human body contain 46 chromosomes composed of DNA, which is a hereditary material storing genetic information and is found within a cell's nucleus.[54] The rungs of DNA's distinctive double-helix structure are composed of nitrogenous bases bonded in pairs.[55] Individuals inherit half of their chromosomes from each biological parent, and more than 99% of human DNA is identical across individuals.[56] Yet the remaining fraction of DNA still contains

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47. *Id.*

48. *See* G. I. Giusti, *Leone Lattes: Italy's Pioneer in Forensic Serology*, 3 AM. J. FORENSIC MED. PATHOL. 79, 79 (1982).

49. *See* M. J. M., Comment, *Evidence: Admissibility of Blood-Group Test*, 32 MICH. L. REV. 987, 989–90 (1934).

50. *See* Corey Harbison, *ABO Blood Type Identification and Forensic Science (1900-1960)*, *in* EMBRYO PROJECT ENCYCLOPEDIA 1, 2 (June 2, 2016), https://hdl.handle.net/10776/11341 [https://perma.cc/ZC9Q-FHQF].

51. *See* Mackenzie L. Brockmyre, *Getting It Right: Law Enforcement's Use of Ancestry Websites to Catch Criminals*, 21 J. HIGH TECH. L. 165, 172–75 (2021).

52. *See* Ian Cobain, *Killer Breakthrough–The Day DNA Evidence First Nailed a Murderer*, GUARDIAN (June 7, 2016, at 10:25 ET), https://www.theguardian.com/uk-news/2016/jun/07/killer-dna-evidence-genetic-profiling-criminal-investigation [https://perma.cc/F55R-XYZU].

53. *See infra* Section I.B.

54. *See* Nat'l Libr. of Med., *What Is DNA?*, MEDLINEPLUS (Jan. 19, 2021), https://medlineplus.gov/genetics/understanding/basics/dna/ [https://perma.cc/VC7J-5XK3]; Greely et al., *supra* note 6, at 249.

55. *Deoxyribonucleic Acid (DNA) Fact Sheet*, NAT'L HUM. GENOME RSCH. INST. (Aug. 24, 2020), https://www.genome.gov/about-genomics/fact-sheets/Deoxyribonucleic-Acid-Fact-Sheet [https://perma.cc/8LTE-TJRY]. There are four types of nitrogen bases: adenine ("A"), thymine ("T"), guanine ("G"), and cytosine ("C"). *Id.*

56. *Human Genomic Variation,* NAT'L HUM. GENOME RSCH. INST. (Feb. 1, 2023), https://www.genome.gov/about-genomics/educational-resources/fact-sheets/human-genomic-variation [https://perma.cc/2QRL-MNLL].

unique information useful for individual identification.[57] Because the human genome contains approximately 3 billion base pairs, even differences in a fraction of those produce distinctive genetic patterns.[58]

There are two primary types of DNA markers used for forensic comparison: short tandem repeats ("STRs") and single nucleotide polymorphisms ("SNPs").[59] STRs are repeating sequences that occur when the DNA replicating process gets stuck and "stutters," producing different numbers of repeated sequences.[60] These repeats appear at fixed points on a chromosome called loci, which enables analysts to use the location of STRs and the number of repetitions to compare one DNA sample to another.[61] For example, if the sequence is ACGT, some people would inherit a stretch of DNA with 4 repeats of ACGT, while others might inherit a stretch with 6 repeats, 10 repeats, or even 20 repeats.[62] Because each person inherits one copy of each STR locus from each parent, STRs are useful for identifying individuals and their parents, but they are far less useful for identifying distant genetic relatives.[63]

SNPs, by contrast, involve variations in a single nucleotide within the DNA sequence.[64] For example, at a particular position where most people have the nucleotide C, so that the sequence reads ACGT, some individuals instead have a T, so that the same stretch reads ATGT.[65] Such variations occur throughout a person's DNA, appearing on average about once every 1,000 nucleotides and amounting to roughly 4 to 5 million SNPs in a single genome.[66] Unlike STRs, SNP patterns remain largely intact across generations and result in predictable ranges of shared DNA between different types of biological relatives.[67] SNPs can identify relationships as

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57. *See* DAVID H. KAYE & GEORGE SENSABAUGH, *Reference Guide on DNA Identification Evidence*, *in* REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 137 (3d ed. 2011), https://www.nationalacademies.org/read/13163/chapter/6 [https://doi.org/10.17226/13163].

58. *See* Rachel Crowley, *Genetics by the Numbers*, NAT'L INST. GEN. MED. SCIS.: BIOMEDICAL BEAT BLOG (Apr. 24, 2024), https://nigms.nih.gov/biobeat/2024/04/genetics-by-the-numbers [https://perma.cc/P7PU-CA7M].

59. *STR vs. SNP: Why Genetic Genealogy Relies on SNP Testing*, BODE TECH., https://bodetech.com/str-vs-snp-why-genetic-genealogy-relies-on-snp-testing/ [https://perma.cc/LRL4-PCVR] (last visited Jan. 8, 2026).

60. Greely et al., *supra* note 6, at 249.

61. Hillary L. Kody, *Standing to Challenge Familial Searches of Commercial DNA Databases*, 61 WM. & MARY L. REV. 287, 291–92 (2019).

62. Greely et al., *supra* note 6, at 249–50.

63. *See STR vs. SNP: Why Genetic Genealogy Relies on SNP Testing*, *supra* note 59.

64. Tuazon et al., *supra* note 4, at 2–3.

65. *See* Nat'l Libr. of Med., *What Are Single Nucleotide Polymorphisms (SNPs)?*, MEDLINEPLUS (Mar. 22, 2022), https://medlineplus.gov/genetics/understanding/genomicresearch/snp/ [https://perma.cc/VS76-MXC5].

66. *Id.*

67. Tuazon et al., *supra* note 4, at 3 (explaining that the total amount of DNA shared between two individuals is expressed in centimorgans ("cMs") and a higher value corresponds to a closer genetic relationship). SNPs are particularly useful in cold cases, which often have aged or compromised samples, because SNPs can be analyzed with shorter, more degraded DNA. *Familial Search and Forensic Genetic Genealogy Measure Relatedness in*

distant as fifth cousins, meaning individuals whose closest shared genetic relative is a fourth-great-grandparent.[68] That reach is what makes FIGG remarkably effective, and it is also what distinguishes FIGG from traditional law enforcement DNA databases.

C. DNA Databases: from CODIS to 23andMe

The DNA Identification Act of 1994 authorized the FBI to establish a national DNA database.[69] Today, the Department of Justice maintains the Combined DNA Index System ("CODIS"), which contains profiles of convicted offenders and forensic samples collected from crime scenes.[70] CODIS uses STR samples, comparing profiles across up to 20 loci.[71] When police use CODIS to run a search, the system is generally limited to returning either a perfect match, which identifies a listed offender, or a partial match, which indicates that the crime-scene DNA belongs to a first-degree relative of a listed offender.[72] The FBI currently does not allow intentional searches in CODIS for the biological relatives of the source of an unknown sample, though some state and local databases permit these types of familial searches.[73]

DTC genetic testing databases operate very differently. Unlike CODIS, which contains profiles only from specific categories of individuals considered to have diminished privacy expectations,[74] DTC databases contain millions of profiles

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Very Different Ways, OTHRAM INC. (Nov. 7, 2024), https://research.othram.com/familial-search-and-forensic-genetic-genealogy-measure-relatedness-in-fundamentally-different-ways/ [https://perma.cc/3ZU3-HWBE].

68. *See* Tuazon et al., *supra* note 4, at 3 tbls. 2–3 (summarizing the average percent DNA shared for different types of relationships and the expected range of percent DNA shared).

69. 34 U.S.C. §§ 12591–93.

70. *Frequently Asked Questions on CODIS and NDIS*, FBI, https://www.fbi.gov/services/laboratory/biometric-analysis/codis/codis-and-ndis-fact-sheet [https://perma.cc/Z4TJ-DN2J] (last visited Jan. 8, 2026).

71. *See id.*; *see also* Ciera Gonzalez, *Genetic Privacy: Late to the Third Party*, 18 COLO. TECH. L.J. 423, 429–30 (2020) (explaining that CODIS profiles are limited in what they reveal and do not include personal identifiers such as names).

72. Natalie Ram, *Investigative Genetic Genealogy and the Future of Genetic Privacy*, 16 NO. 4 ABA SCITECH LAW 18, 21 (2020) (explaining that familial searches in CODIS can only reach relatives like parents, children, and siblings).

73. *Frequently Asked Questions on CODIS and NDIS*, *supra* note 70. For more on familial DNA searches, see generally Erin Sheley, *Familial DNA and Due Process for Innocents*, 98 S. CAL. L. REV. 945 (2025) (discussing the due process rights of the innocent third parties implicated in familial DNA searches).

74. *See Frequently Asked Questions on CODIS and NDIS*, *supra* note 70 (noting that DNA data in CODIS must fall into an acceptable category, such as offender, arrestee, detainee, unidentified human remains, or missing person); *see also* Johana Bhuiyan, *US Immigration Authorities Collecting DNA Information of Children in Criminal Database*, GUARDIAN (May 31, 2025, at 08:00 ET), https://www.theguardian.com/us-news/2025/may/31/cbp-dna-collection-children-immigrants [https://perma.cc/9JEE-VDD6] (explaining that the U.S. government is collecting and storing migrants' DNA in CODIS).

submitted voluntarily by people around the world.[75] DTC companies like FamilyTreeDNA maintain databases with customer profiles, and individuals can also submit their genetic information to public genealogy databases like GEDmatch.[76] These databases allow for comparison of SNPs across more than 600,000 variations in a DNA sequence[77] and can reveal not only familial relationships but also physical characteristics and potential medical conditions.[78] Because DTC companies use SNPs, law enforcement's use of FIGG allows investigators to identify a suspect using a match from a more distant genetic relative than a similar search in CODIS could.[79] In fact, a 2018 study predicted that roughly 60% of Americans of European descent could be identified through a third-cousin match in a genealogy database.[80]

D. Reliability and Limitations of DNA Evidence

Although DNA matching is a powerful tool, it is not infallible—a concern that is particularly prevalent in DTC genetic testing.[81] As testing methods have

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75. *See* Antonio Regalado, *2017 Was the Year Consumer DNA Blew Up*, MIT TECH. REV. (Feb. 12, 2018), https://www.technologyreview.com/s/610233/2017-was-the-year-consumer-dna-testing-blew-up/ [https://perma.cc/NE67-HN3F] (noting that over 12 million people have used a DTC test to analyze their DNA). Some scholars have argued that searching DTC and public genealogy databases could provide a mechanism to counter CODIS's racial bias. *See* Divya Ramjee & Katelyn Ringrose, *The Challenges of Forensic Genealogy: Dirty Data, Electronic Evidence, and Privacy Concerns*, 98 DENV. L. REV. 157, 163 (2020); *see also* Klugman & Rodriguez, *supra* note 29, at 75–76 (noting that African Americans make up 13% of the U.S. population but 40% of CODIS, and Latinx people account for 16.7% of the U.S. population but 22% of prisoners).

76. *See* Glynn, *supra* note 15, at 3. While GEDmatch may not technically be a "DTC company" because it does not provide the consumer with a DNA test, most state statutes define DTC companies to include entities that merely collect, use, or analyze genetic data. *See, e.g.*, UTAH CODE ANN. § 13-60-102(4)(b). For clarity, references to DTC companies in this Note include public genealogy databases.

77. *See* Tina Hesman Saey, *New Genetic Sleuthing Tools Helped Track Down the Golden State Killer Suspect*, SCI. NEWS (Apr. 29, 2018, at 09:49 MT), https://www.sciencenews.org/article/golden-state-killer-suspect-dna-genetics-genealogy [https://perma.cc/7X27-MERL].

78. Gonzalez, *supra* note 71, at 445. However, when law enforcement accesses either type of database, it sees only what other participants see, not additional or secret information. Guerrini et al., *supra* note 14, at 8. One aspect of the FIGG debate concerns the remote harm versus realized benefit of its use. *See* Thomas D. Holland, *Novel Features of Considerable Biologic Interest: The Fourth Amendment and the Admissibility of Abandoned DNA Evidence*, 20 COLUM. SCI. & TECH. L. REV. 271, 314 (2019) (questioning whether crime laboratory technicians have the time, training, and resources to use DNA for anything beyond identification). Fingerprints similarly can reveal more information than they are currently used for, which raises questions about the likelihood of DNA misuse. *Id.* at 314–17.

79. *See supra* Section I.B.

80. Yaniv Erlich et al., *Identity Inference of Genomic Data Using Long-Range Familial Searches*, 362 SCIENCE 690, 690 (2018) ("[A] genetic database needs to cover only 2% of the target population to provide a third-cousin match to nearly any person.").

81. *See* Stephany Tandy-Connor et al., *False Positive Results Released by Direct-to-Consumer Genetic Tests Highlight the Importance of Clinical Confirmation Testing for Appropriate Patient Care*, 20 GENETICS MED. 1515, 1519 (2018), https://www.nature.com/articles/gim201838 [https://doi.org/10.1038/gim.2018.38] (finding

become more sensitive, laboratories have received a growing number of poor-quality DNA samples.[82] Poorer-quality samples require more human analysis to confirm a genetic match, and thus lab analysts increasingly run the risk of identifying a false positive.[83] This risk is compounded by the fact that crime-scene samples are frequently mixtures of multiple people's DNA.[84] An individual's DNA can also end up on surfaces that they never touched through secondary transfer, in which DNA is deposited indirectly through contact with an object or person rather than direct contact with a crime scene,[85] meaning a profile can identify its source accurately and still reveal nothing about whether that person was ever present.[86] In one study, the National Institute of Standards and Technology gave the same DNA mixture to roughly 108 crime laboratories, and 74 of those laboratories wrongly included an innocent suspect who should have been excluded.[87]

Despite these reliability concerns, studies consistently show that jurors place enormous weight on DNA evidence.[88] One study, for instance, found that both student and juror samples rated DNA the most accurate and most persuasive evidence presented to them, with mean accuracy ratings near 94%.[89] Yet jurors often cannot distinguish between different types of statistical DNA evidence,[90] and the

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40% of the variants reported in DTC raw data were false positives, highlighting the need to confirm such results in a clinical laboratory experienced in both complex variant detection and classification).

82. *See* JOHN M. BUTLER, ADVANCED TOPICS IN FORENSIC DNA TYPING: INTERPRETATION 221 (2014) ("Sensitivity is in many ways a two-edge sword – although more information can be recovered, interpretation becomes more challenging and time-consuming.").

83. *See* Jennifer Lynch, *How Private DNA Data Led Idaho Cops on a Wild Goose Chase and Linked an Innocent Man to a 20-Year-Old Murder Case*, ELEC. FRONTIER FOUND. (May 1, 2015), https://www.eff.org/deeplinks/2015/05/how-private-dna-data-led-idaho-cops-wild-goose-chase-and-linked-innocent-man-20 [https://perma.cc/3PHK-FYX2] (discussing a crime lab analyst in San Francisco who had been identifying matches based on poor-quality, incomplete genetic material).

84. Caroline Levine, *Anyone You Are Related to Can Be Used Against You: Criminal Discovery Statutes and Investigative Genetic Genealogy*, 46 CARDOZO L. REV. 227, 237 (2024).

85. *See* Katie Worth, *Framed for Murder by His Own DNA*, MARSHALL PROJECT (Apr. 19, 2018, at 07:00 MT), https://www.themarshallproject.org/2018/04/19/framed-for-murder-by-his-own-dna [https://perma.cc/2LJ2-XPWE].

86. *See* Cynthia M. Cale et al., *Could Secondary DNA Transfer Falsely Place Someone at the Scene of a Crime?*, 61 J. FORENSIC SCI. 196, 202 (2016).

87. John M. Butler, Margaret C. Kline & Michael D. Coble, *NIST Interlaboratory Studies Involving DNA Mixtures (MIX05 and MIX13): Variation Observed and Lessons Learned*, 37 FORENSIC SCI. INT'L: GENETICS 81, 90 (2018).

88. Kimberly Schweitzer & Narina Nuñez, *What Evidence Matters to Jurors? The Prevalence and Importance of Different Homicide Trial Evidence to Mock Jurors*, 25 PSYCHIATRY, PSYCH. & L. 437, 444 (2018).

89. Joel D. Lieberman et al., *Gold Versus Platinum: Do Jurors Recognize the Superiority and Limitations of DNA Evidence Compared to Other Types of Forensic Evidence?*, 14 PSYCH., PUB. POL'Y & L. 27, 37 (2008).

90. *See* Jonathan J. Koehler, *On Conveying the Probative Value of DNA Evidence: Frequencies, Likelihood Ratios and Error Rates*, 67 U. COLO. L. REV. 859, 878–81 (1996) (describing a study in which participants received the same statistic, a profile frequency of 1

way a statistic is presented can significantly change how it is perceived.[91] Because DNA statistics are rarely intuitive,[92] they risk causing both misinterpretation on their face[93] and inadequate conveyance of the possibility of misidentification.[94] FIGG introduces further complexities by adding multiple layers of human evaluation.[95] Because certain relationships produce similar ranges of shared DNA, a genealogist must scrutinize historical and public records to construct a family tree and identify a suspect.[96] At each step in the process, human errors can alter the outcome.[97]

While not perfect, DNA is a powerful investigative tool.[98] Yet the history of forensic evidence suggests that confidence in a technique tends to outpace understanding of its limitations—especially when considering the legal system's notoriously slow response to scientific and technological advancements.[99]

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in 100 or 1 in 1,000, presented in one of three ways: (1) frequency condition participants were told that the DNA profiles observed in the sample and the suspect would be expected in approximately 1 person out of every 100 (or 1,000); (2) likelihood ratio participants were told that it would be approximately 100 (or 1,000) times more likely to see this match if the suspect were the source of the sample than if he were not; and (3) posterior-odds ratio participants were told that, given this match, it was approximately 100 (or 1,000) times more likely that the suspect was the source of the sample than that he was not).

91. *Id.* at 879–83.

92. *See, e.g.*, *supra* note 90 and accompanying text.

93. For example, the prosecutor's fallacy is a well-recognized error that conflates the "probability a member of the general population would share the same DNA" with the probability "that someone other than the defendant is the source of the DNA found at the crime scene." McDaniel v. Brown, 558 U.S. 120, 128 (2010). Moreover, the way that a statistic is stated can impact whether a juror makes judgments "consistent with the Prosecutor's Fallacy." William C. Thompson & Edward L. Schumann, *Interpretation of Statistical Evidence in Criminal Trials: The Prosecutor's Fallacy and the Defense Attorney's Fallacy*, 11 L. & HUM. BEHAV. 167, 174 (1987).

94. *See* Jonathan J. Koehler, *Intuitive Error Rate Estimates for the Forensic Sciences*, 57 JURIMETRICS J. 153, 165–66 (2017).

95. *See* Levine, *supra* note 84, at 231.

96. Brown, *supra* note 11, at 135–37 ("For example, a woman who shares 1750 centiMorgans (cMs) of DNA with you could be your half-sister, grandmother, granddaughter, or aunt. Likewise, a first cousin, grandchild, or a great-uncle/aunt/nephew/niece could all share roughly 950 cMs of DNA."). Professional genealogy requires expertise, but certification standards remain relatively new and many well-known investigative genealogists lack formal credentials. *See* Leah Larkin, *A Board of Certification for Investigative Genetic Genealogy Is Announced*, THE DNA GEEK (Oct. 19, 2022), https://thednageek.com/a-board-for-certification-of-investigative-genetic-genealogy-is-announced/ [https://perma.cc/X5LP-34UZ].

97. Nila Bala, *Criminal Suspects Deserve Genetic Privacy, Too*, SLATE (Mar. 18, 2019, at 07:30 MT), https://slate.com/technology/2019/03/genetic-genealogy-law-enforcement-suspects-dna-privacy-gedmatch.html [https://perma.cc/3VPN-ZM72].

98. *See supra* Section I.B.

99. *See, e.g.*, *Is the Law Playing Catch-Up with AI?*, HARV. L. TODAY (Jan. 16, 2025), https://hls.harvard.edu/today/is-the-law-playing-catch-up-with-ai/ [https://perma.cc/6QM3-3L79].

II. GENETIC EXCEPTIONALISM AND THE ARGUMENT FOR CONTROLLING FIGG

Even outside the context of FIGG, genetic information has long been treated as uniquely personal and thus deserving of special legal protection[100]—a belief known as genetic exceptionalism.[101] The unease with FIGG exemplifies this view because the technique allows investigators to identify individuals through the genetic data of relatives who never chose to participate in a criminal investigation and whose only connection to the crime is a fraction of shared DNA. This Part examines the three legal frameworks most commonly thought to provide checks on FIGG's use—the Fourth Amendment, property law, and contract law—and explains why none of them provide the protection that FIGG's privacy, consent, and accountability implications demand. If any of these frameworks were sufficient, defendants and their relatives would already have recourse when FIGG is misused. The reality is that they do not, and that gap is precisely what makes direct regulation necessary.

A. The Fourth Amendment and Genetic Privacy

The Fourth Amendment protects reasonable expectations of privacy against "unreasonable searches and seizures" and generally requires law enforcement to obtain a valid warrant before conducting a search.[102] But the Fourth Amendment's application to FIGG is complicated by two underlying problems that existing doctrine has not developed to resolve.

The first is the third-party doctrine. When an individual voluntarily shares information with a third party, this doctrine establishes that the sharing party no longer retains a reasonable expectation of privacy in that information.[103] Because consumers submit their DNA to DTC companies voluntarily and affirmatively,[104] the third-party doctrine would seem to foreclose any Fourth Amendment protection entirely.[105] Recently, however, the Supreme Court's 2018 decision in *Carpenter v.*

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100. *See* Natalie Ram, *Genetic Privacy After* Carpenter, 105 VA. L. REV. 1357, 1380–91 (2019); *see also* PRESIDENTIAL COMM'N FOR THE STUDY OF BIOETHICAL ISSUES, PRIVACY AND PROGRESS IN WHOLE GENOME SEQUENCING app. IV (2012), https://ssrn.com/abstract=2459932 [https://perma.cc/MLK9-NLDU] (collecting state genetic privacy laws, current to 2012).

101. *See* Nanibaa' A. Garrison et al., *Genomic Contextualism: Shifting the Rhetoric of Genetic Exceptionalism*, 19 AM. J. BIOETH. 51, 52 (2019).

102. U.S. CONST. amend. IV.

103. *See, e.g.*, Gonzalez, *supra* note 71, at 426.

104. Brown, *supra* note 11, at 144. However, only the consumer voluntarily and affirmatively participates in the DNA database. *See* Victoria Romine, *Crime, DNA, and Family: Protecting Genetic Privacy in the World of 23andMe*, 53 ARIZ. ST. L.J. 367, 389 (2021).

105. *See, e.g.*, Jasper Ford-Monroe, *Why Familial Searches of Civilian DNA Databases Can and Should Survive* Carpenter, 72 HASTINGS L.J. 1717, 1730 (2021) (arguing that consumers "willingly and deliberately share their DNA and . . . DNA does not reveal a person's actions"). *But see* Zeevi, *supra* note 6, at 777 ("For these reasons and more, including the ability to implicate countless individuals with one DNA sample, DNA is different from other types of information, and its use for any purpose—especially in criminal investigations—must be strictly protected.").

United States[106] offered a potential opening. There, the Court held that the third-party doctrine did not extend to cell-site location information because of its uniquely revealing nature and the practical impossibility of avoiding the creation of such location information in modern life.[107]

Importantly, the *Carpenter* Court protected cellphone-generated data, reasoning that cellphones are "almost a 'feature of the human anatomy.'"[108] Some scholars have argued that DNA, as a literal feature of the human anatomy, warrants similar protections.[109] However, applying *Carpenter*'s reasoning to FIGG has significant limits. Participating in DTC genetic testing is not an unavoidable feature of modern life in the way that carrying a cellphone is,[110] and the *Carpenter* Court explicitly stated that its holding was a narrow one.[111] Extending it to FIGG would require an additional doctrinal expansion that the Court has declined to even consider thus far.[112]

The second problem is intrinsically created by the Fourth Amendment's particularity requirement. A valid warrant must particularly describe "the place to be searched, and the persons or things to be seized."[113] This particularity requirement assumes that law enforcement seeks to search or seize an identifiable target, but FIGG disrupts that traditional investigative model.[114] Rather than identifying a suspect and then conducting a search, FIGG is typically proposed when no suspect can be identified.[115] This results in a search through the genetic information of thousands of unknown individuals in order to identify any suspect at all.[116] There is rarely even probable cause to believe the database search will produce a match.[117] As a result, the location to be searched is effectively an entire database, and the information to be seized is the identity of anyone who might be genetically related

106. 585 U.S. 296 (2018).
107. *Id.* at 311–16.
108. *Id.* at 311 (quoting Riley v. California, 573 U.S. 373, 385 (2014)).
109. *See* Zeevi, *supra* note 6, at 779.
110. *See* Brown, *supra* note 11, at 144.
111. *Carpenter*, 585 U.S. at 316.
112. The Supreme Court has declined to hear two state supreme court cases involving FIGG. *See* State v. Burns, 988 N.W.2d 352 (Iowa 2023), *cert. denied*, 144 S. Ct. 288 (2023); State v. Westrom, 6 N.W.3d 145 (Minn. 2024), *cert. denied*, 145 S. Ct. 418 (2024). A third petition was filed in May 2026. *See generally* Petition for a Writ of Certiorari, Williams v. Pennsylvania, No. 25-1277 (U.S. May 5, 2026), 2026 WL 1335858 ("Even assuming that the warrantless seizure of DNA from a person's child and a person's trash outside their residence is constitutionally permissible and would not cause the Framers of the Constitution to roll over in their graves, a warrant still is necessary to extract and create a DNA profile.").
113. U.S. CONST. amend. IV.
114. *See* Ram, *supra* note 72. Ram also proposes CODIS searches are technically suspicionless searches in pursuit of a suspect but argues that CODIS is far more regulated and that those whose profiles it holds typically have diminished expectations of privacy. *See id.*
115. *See* McGee, *supra* note 12, at 47–48.
116. *See id.*
117. *See* J.W. Hazel et al., *Is It Time for a Universal Genetic Forensic Database? Bias and Privacy Concerns Cloud Police Use of Genetics*, 362 SCIENCE 898, 900 (2018).

to an unknown perpetrator.[118] No warrant can satisfy a particularity requirement under those conditions.[119]

Taken together, these two problems leave Fourth Amendment doctrine poorly equipped to balance the interests that FIGG implicates.[120] Though the debate in existing scholarship is extensive, courts are clearly hesitant to extend Fourth Amendment protection to FIGG.[121] The doctrine was not built for investigative techniques that examine thousands of individuals' information at once and stretching it to fit FIGG would require doctrinal expansions that the Court has shown no indication of pursuing.[122] Although existing FIGG scholarship largely focuses on the Fourth Amendment,[123] other frameworks have been proposed.

B. Property Law and the Problem with/of Genetic Ownership

Property law offers a second possible framework for constraining FIGG, but it too faces complications. The intuitive assumption that one's DNA is their personal property finds little support in existing doctrine.[124] In *Moore v. Regents of the University of California*,[125] the California Supreme Court famously held that individuals retain no property right in genetic material once it has been removed from the body.[126] Most states have followed that lead.[127]

The abandoned property doctrine supports a similar finding. When an individual intentionally leaves their property behind, they retain no rights in it, which includes any Fourth Amendment protection.[128] Thus, consumers who submit

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118. However, so-called John Doe warrants, which identify a suspect by DNA profile, may provide an avenue to satisfy the particularity requirement. *See* Emily Clarke, Note, *Tolling Time: How John Doe DNA Indictments Are Skirting Statutes of Limitation and Crippling the Criminal Justice System*, 56 AM. CRIM. L. REV. ONLINE 7, 8–9 (2019).

119. *But see* Kashmir Hill & Heather Murphy, *Your DNA Profile Is Private? A Florida Judge Just Said Otherwise*, N.Y. TIMES (Dec. 30, 2019), https://www.nytimes.com/2019/11/05/business/dna-database-search-warrant.html [https://perma.cc/5M9L-XQQ4].

120. More broadly, Fourth Amendment jurisprudence in general is thought to be inconsistent. *See* Christopher S. Yoo & Arnav Jagasia, *Identifying Fourth Amendment Values: An Evidence-Based Approach*, 59 WAKE FOREST L. REV. 1219, 1269–79 (2024).

121. *See, e.g.*, State v. Carbo, 6 N.W.3d 114, 121–22 (Minn. 2024).

122. *See supra* note 112 and accompanying text.

123. *See, e.g.*, Matthew Sweat, Note, *A Square Double Helix in A Round Hole: Forensic Genetic Genealogy Searches and the Fourth Amendment*, 39 GA. ST. U. L. REV. 605, 642 (2023); Michael I. Selvin, Note, *A Too Permeating Police Surveillance: Consumer Genetic Genealogy and the Fourth Amendment After* Carpenter, 53 LOY. L.A. L. REV. 1015, 1036–37 (2020).

124. *See* Holland, *supra* note 78, at 289 (discussing Moore v. Regents of Univ. of Cal., 793 P.2d 479 (Cal. 1990)).

125. 793 P.2d 479 (Cal. 1990).

126. *Id.* at 493–94.

127. *See* Natalie Alexander, Note, *Meaningless DNA:* Moore*'s Inadequate Protection of Genetic Material*, 127 DICK. L. REV. 339, 345 (2022).

128. *See* Holland, *supra* note 78, at 281; *see also* David W. Cunis, California v. Greenwood*: Discarding the Traditional Approach to the Search and Seizure of Garbage*, 38 CATH. U. L. REV. 543, 556–57 (1989) ("Where an owner of personal property intentionally abandons the property, all interest in that property is severed, and police may seize such

DNA samples to DTC companies arguably abandon any property interest in that material, leaving law enforcement free to access it without infringing on a property right.[129] Moreover, all living things constantly shed their DNA.[130] From that perspective, individuals cannot intend to abandon their DNA.[131] But if anything, the fact that shedding DNA is a constant and unconscious process makes claims of possessory interest even harder to defend.[132]

A more interesting property argument focuses on DNA's nature as a shared asset. Because genetic information is shared with every biological relative of the person tested,[133] some scholars have argued that no one person should be able to unilaterally relinquish an interest in that shared genetic material.[134] DTC companies generally acknowledge that users have a property interest in their genetic material,[135] and a handful of states recognize a similar statutory property right, though those

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property without probable cause."). Some defendants have challenged FIGG in court by claiming that the collection of another piece of the defendant's property to compare to the crime-scene DNA sample was a Fourth Amendment violation. *See, e.g.*, Commonwealth v. Williams, 342 A.3d 742, 755 (Pa. Super. Ct. 2025), *appeal denied*, 354 A.3d 472 (Pa. 2026).

129. *See* Elizabeth E. Joh, *Reclaiming "Abandoned" DNA: The Fourth Amendment and Genetic Privacy*, 100 NW. U. L. REV. 857, 859 (2006).

130. *See* Jenny Whilde & Jessia Alice Farrell, *Analysis: We Shed Our DNA Everywhere We Go. Here's Why That Raises Privacy Concerns*, PBS (May 22, 2023, at 16:11 ET), https://www.pbs.org/newshour/science/analysis-we-shed-our-dna-everywhere-we-go-heres-why-that-raises-privacy-concerns [https://perma.cc/2BKD-ZGQ8]; *see also* ERIN E. MURPHY, INSIDE THE CELL: THE DARK SIDE OF FORENSIC DNA 5 (2015) ("Every two minutes, in fact, we shed almost enough skin cells to cover an entire football field.").

131. *See* Holland, *supra* note 78, at 302.

132. *See id.* at 301–03 (pointing out that attaching liability or responsibility for shedding DNA would be like allowing trespass claims for our neighbor's dandruff rubbing off on our couch).

133. *See, e.g.*, Catherine M. Valerio Barrad, *Genetic Information and Property Theory*, 87 NW. U. L. REV. 1037, 1039–40 (1993); Yaniv Heled, Liza Vertinsky & Ana Santos Rutschman, *A Theory of Genetic Dimensions in the Law*, 99 IND. L.J. 1341, 1353–62 (2024); Robin Feldman, *Whose Body Is It Anyway? Human Cells and the Strange Effects of Property and Intellectual Property Law*, 63 STAN. L. REV. 1377, 1385 (2011).

134. *See* Natalie Ram, *DNA by the Entirety*, 115 COLUM. L. REV. 873, 918–19, 938 (2015) (analogizing shared genetic interests to tenancy by the entirety, under which neither spouse may encumber property without the other's consent); *see also* Shelly Simana, *Relational Self-Ownership: What We Owe Each Other When Genes Are Shared*, 67 ARIZ. L. REV. 1059, 1117 (2025) (arguing that because genetic material is shared across generations, it "demands a governance structure that reflects the individual, familial, and collective stakes involved").

135. *See, e.g.*, *Terms of Service*, 23ANDME (Nov. 14, 2025), https://www.23andme.com/legal/terms-of-service/full-version/ [https://perma.cc/8GM7-UCJ3] ("Any information derived from your sample remains your information, subject to rights we retain as set forth in these Terms."). Ancestry similarly recognized the user's property interest at one point, though it appears to have removed such acknowledgement. *See Ancestry Privacy Philosophy*, ANCESTRY, https://www.ancestry.com/cs/privacyphilosophy [https://perma.cc/2X2G-WS4W] (last visited Jan. 8, 2026) (stating, under "Your Data" in response to the question, "Who owns my data?," that as a user, "[y]ou own your DNA data and you can ask us to remove your data from our systems at any time").

statutes almost universally contain broad exceptions for law enforcement use.[136] Importantly, genetic relatives are spread across many states, so a property right recognized in one state provides no protection from an investigation conducted in another state.[137]

In short, property law also fails to provide a workable framework for addressing FIGG. The problem runs deeper than just ownership, however.

C. Contract Law and the Limits of Consent and Notice

Some scholars argue that the greatest threat to genetic privacy does not stem from law enforcement's use of FIGG at all, but from the weak consent structures and data security standards governing DTC companies.[138] The extent to which genetic data is considered private is still unsettled,[139] and consumers often relinquish control over genetic data without fully understanding how it may later be used.[140]

The terms of service that DTC companies ask consumers to accept are often vague and varied on the questions of whether and how law enforcement can access consumers' information. Ancestry provides that it may share personal information to "[c]omply with valid legal processes."[141] 23andMe similarly reserves the right to

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136. *See, e.g.*, ALASKA STAT. § 18.13.010(a)(2), (b)(2) (2026) (providing that DNA samples and analysis results "are the exclusive property of the person sampled or analyzed," but exempting samples and analyses used "for a law enforcement purpose, including the identification of perpetrators and the investigation of crimes"); FLA. STAT. §§ 760.40(2), 817.5655(7)(a) (2026) (declaring that DNA analysis results "are the exclusive property of the person tested" but exempting DNA analysis results used for "[c]riminal investigation or prosecution").

137. This reality similarly impacts the efficacy of statutes that regulate law enforcement's use of FIGG. *See infra* Section IV.A.

138. *See* Brown, *supra* note 11, at 123; *see also* James W. Hazel & Christopher Slobogin, *Who Knows What, and When?: A Survey of the Privacy Policies Proffered by U.S. Direct-to-Consumer Genetic Testing Companies*, 28 CORN. J.L. & PUB. POL'Y 35, 56–57 (2018) (discussing a 2017 survey of 90 DTC companies' privacy policies that revealed most have little transparency on how they deal with law enforcement requests, with many simply stating that data may be disclosed "as required by law").

139. *See supra* notes 17–19 and accompanying text.

140. *Compare* Natalie Ram et al., *The Precarious Future of Consumer Genetic Privacy*, 389 SCIENCE 1092, 1093 (2025) ("[C]onsumers rarely read terms of service or privacy policies in full or check back for updates."), *with 23 and You: The Privacy and National Security Implications of the 23andMe Bankruptcy: Hearing Before the S. Comm. on the Judiciary*, 119th Cong. (2025), at 43:21–43:43, https://www.judiciary.senate.gov/committee-activity/hearings/23-and-you-the-privacy-and-national-security-implications-of-the-23andme-bankruptcy (on file with *Arizona Law Review*) (statement of Joseph Selsavage, Interim Chief Exec. Officer & Chief Fin. & Accounting Officer, 23andMe Holding Co.) (explaining that 23andMe obtained consent from users to transfer their data in the event of a bankruptcy sale through its terms of service).

141. *Ancestry Privacy Statement*, ANCESTRY (May 12, 2026), https://www.ancestry.com/cs/legal/privacystatement [https://perma.cc/9B47-R8FN]; *see also Ancestry Guide for Law Enforcement*, ANCESTRY, (Nov. 12, 2019) https://www.ancestry.com/c/legal/lawenforcement/ [https://perma.cc/HS99-LGYC] (stating that it requires "all government agencies seeking access to Ancestry customers' data to follow

disclose information to law enforcement if required "by law or in the good faith belief" that disclosure is reasonably necessary.[142] While these policies address law enforcement access to some degree, neither can tell consumers with any certainty when their genetic information might be disclosed to implicate them or their relatives in a criminal investigation.

Moreover, GEDmatch's policy illustrates how flexible these terms are in practice. When law enforcement used GEDmatch to catch the Golden State Killer, the company did not officially permit law enforcement access.[143] After facing backlash, GEDmatch updated its policy to allow users to "opt-in" to law enforcement access for solving violent crimes.[144] It expanded the definition of violent crime further in 2019, caving to pressure from law enforcement.[145] Then in 2023, an investigation revealed that genetic genealogists working with law enforcement had been exploiting a loophole to manipulate GEDmatch's search fields and access opted-out profiles anyway.[146]

There is also an important difference between searches of police DNA databases and searches of DTC databases.[147] Family members are often aware of

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valid legal process" and clarifying that while its "policy for all requests is to notify users of the request," it may, in its sole discretion, choose not to do so "if doing so would be counterproductive").

142. *Privacy Statement*, 23ANDME (May 19, 2026), https://www.23andme.com/legal/privacy/full-version/ [https://perma.cc/HPJ9-7C25]; *see also Transparency Report*, 23ANDME: TRUST CENTER (April 30, 2026), https://www.23andme.org/trust-center/ [https://perma.cc/YTA9-PE5J] (reporting that as of April 2026, 23andMe had received 13 requests for information from law enforcement and had not produced any data so far).

143. *See* Laurel Wamsley, *In Hunt for Golden State Killer, Investigators Uploaded His DNA to Genealogy Site*, NPR (Apr. 27, 2018, at 19:31 ET), https://www.npr.org/sections/thetwo-way/2018/04/27/606624218/in-hunt-for-golden-state-killer-investigators-uploaded-his-dna-to-genealogy-site [https://perma.cc/KVD5-7RB4].

144. *See* Natalie Ram, *The Genealogy Site That Helped Catch the Golden State Killer Is Grappling with Privacy*, SLATE (May 29, 2019, at 07:30 MT), https://slate.com/technology/2019/05/gedmatch-dna-privacy-update-law-enforcement-genetic-geneology-searches.html [https://perma.cc/P2ET-B83R]; *Terms of Service and Privacy Policy*, GEDMATCH (Oct. 21, 2025), https://www.gedmatch.com/privacy-policy-october-21-2025/ [https://perma.cc/HYA2-RYXK] (stating that GEDmatch "encourage[s] everybody to select" the opt-in option).

145. *See* Ellen McRae Greytak, *Genetic Genealogy for Cold Case and Active Investigations: 2021 Update*, ISHI REP. (Nov. 2021), https://promega.foleon.com/theishireport/the-ishi-report-november-2021/genetic-genealogy-for-cold-case-and-active-investigations-2021-update/ [https://perma.cc/9X6C-43A2]; Pat Reavy, *Plastic Milk Container, Genealogy Helped Utah Police Crack Church Assault Case*, KSL (May 13, 2019, at 15:42 MT), https://www.ksl.com/article/46551323/plastic-milk-container-genealogy-helped-utah-police-crack-church-assault-case [https://perma.cc/VXY4-AZE6].

146. Jordan Smith, *Police Are Getting DNA Data from People Who Think They Opted Out*, INTERCEPT (Aug. 18, 2023, at 11:10 ET), https://theintercept.com/2023/08/18/gedmatch-dna-police-forensic-genetic-genealogy/ [https://perma.cc/5AG5-YKFZ].

147. *See* Kody, *supra* note 61, at 317–18.

even a distant relative's arrest, while family members of DTC users do not typically know that a relative has provided DNA to a company that could later be used to identify them.[148] This distinction matters because a user's consent in the context of FIGG is arguably not truly informed since an individual essentially consents "on behalf of all her past, present, and future genetic relatives."[149] As one scholar has observed, sharing genetic information with a DTC company is like publishing an autobiography that is mostly an individual's own story, but telling it reveals parts of the private stories of others who never agreed to be included.[150]

Because none of these frameworks—Fourth Amendment doctrine, property law, or contract law—effectively constrain FIGG's use, regulation has fallen to the states.

III. THE CURRENT LEGAL LANDSCAPE OF FIGG REGULATION

The landscape of FIGG regulation is anything but uniform. Some jurisdictions directly regulate law enforcement's use of the technique.[151] Others regulate indirectly by restricting when DTC companies may disclose genetic information to law enforcement.[152] In many states, FIGG remains largely unregulated.[153] This Part provides the first comprehensive taxonomy of state approaches based on their underlying regulatory theories.[154]

A. Direct Limits on Law Enforcement Use of FIGG

The states with the most visible response to FIGG have begun to regulate law enforcement's use of the technique itself. Currently, two mechanisms exist for doing so: the Department of Justice interim policy and state FIGG statutes.

1. The DOJ Interim Policy on Forensic Genealogical DNA Analysis and Searching

In 2019, the DOJ released an interim policy to provide internal guidance for the use of FIGG in criminal investigations.[155] The policy contains several notable

148. *See id.* For a discussion on the ineffectiveness of consent for data privacy more generally, see Ruifeng Song, *Disenchanting Consent*, 28 SMU SCI. & TECH. L. REV. 325, 359 (2026) ("Admittedly, consent is closely linked to the discourses of human rights and appealing concepts such as autonomy and self-determination. Yet, a morally appealing but pragmatically ineffective mechanism does not promote data privacy. Or even worse, it may cause a false sense of security for ordinary people.").

149. *See* Zeevi, *supra* note 6, at 781–82.

150. *See* Brown, *supra* note 11, at 168.

151. *See infra* Section III.A.

152. *See infra* Section III.B.

153. *See infra* Section III.C.

154. According to data current through December 2024, every state but Maine, Nebraska, North Dakota, and West Virginia had utilized FIGG to solve at least one crime. *IGG Cases*, GENEALOGY EXPLAINED, https://www.genealogyexplained.com/igg-cases/ [https://perma.cc/46H7-6HJU] (last visited Jan. 30, 2026) (indicating that FIGG had solved 755 criminal cases involving 379 individuals).

155. DEP'T OF JUST., INTERIM POLICY: FORENSIC GENETIC GENEALOGICAL DNA ANALYSIS AND SEARCHING 1 n.1 (2019) [hereinafter DOJ INTERIM POLICY], https://www.justice.gov/olp/page/file/1204386/dl [https://perma.cc/76FG-GUKU]. Although the DOJ's initial press release anticipated a final policy in 2020, none had been published as of September 2026. *See* Press Release, Dep't of Just., Department of Justice Announces

requirements: law enforcement may not arrest a suspect solely on the basis of FIGG results,[156] use of the technique is limited to unsolved violent crimes,[157] and the forensic profile must have been uploaded to CODIS with no matches before FIGG can begin.[158] Law enforcement must also identify themselves to the DTC database and may only search profiles from companies that provide explicit notice to their users that law enforcement has access to their site to investigate crimes.[159] Moreover, before law enforcement can collect a DNA sample from a third party for comparison, they must obtain informed consent unless they have a reasonable belief that doing so would compromise the investigation.[160] In such a case, a search warrant is required to covertly collect a sample.[161]

So far, only Wisconsin has formally adopted the DOJ's interim policy.[162] In addition, the policy's practical limitations are significant. It does not create any substantive or procedural rights that would allow a criminal defendant to challenge a violation,[163] and the DOJ has already demonstrated that it is willing to depart from its own guidelines under the right circumstances.[164] Because of this, the DOJ policy arguably provides the pretense of regulation without actually constraining anything.

Interim Policy on Emerging Method to Generate Leads for Unsolved Violent Crimes (Sep. 24, 2019), https://www.justice.gov/archives/opa/pr/department-justice-announces-interim-policy-emerging-method-generate-leads-unsolved-violent [https://perma.cc/8PNZ-CAH6].

156. DOJ INTERIM POLICY, *supra* note 155, at 4, 7.

157. *Id.* at 4.

158. *Id.* at 5.

159. *Id.* at 6.

160. *Id.*

161. *Id.*

162. *See* WIS. STATE CRIME LAB'YS, WSCL FORENSIC INVESTIGATIVE GENETIC GENEALOGY (FIGG) AND UNIDENTIFIED HUMAN REMAINS (UHR) EVIDENCE SUBMISSION GUIDELINES 1 (2024), https://www.wisdoj.gov/Forensic%20Science/FIGG%20UHR%20Evidence%20Submission%20Guidelines%2003-26-2024.pdf [https://perma.cc/E6EG-K57C]; *see also* Margaret B. Mullican, Comment, *Climbing the Family Tree to Solve Crime: The Statutory Regulation of Investigative Genetic Genealogy in Wisconsin*, 26 MARQ. BENEFITS & SOC. WELFARE L. REV. 105, 107 (2025) ("In 2021, Wisconsin adopted the U.S. DOJ policy and established a team of experts to assist investigators with IGG-related questions."). However, an article from the official journal of the Texas District and County Attorneys Association advised that law enforcement abide by the DOJ interim policy. *See* Leighton D'Antoni, *Investigative Genetic Genealogy (IGG): A Guide for Prosecutors*, TEX. PROSECUTOR, Sep.–Oct. 2024, at 1, 23.

163. DOJ INTERIM POLICY, *supra* note 155; *cf.* Whren v. United States, 517 U.S. 806, 815 (1996) ("[P]olice enforcement practices, even if they could be practicably assessed by a judge, vary from place to place and from time to time. We cannot accept that the search and seizure protections of the Fourth Amendment are so variable.").

164. *See* Kevin Fixler, *Kohberger's Idaho Attorneys Argue FBI Skirted Policies. They Want DNA Evidence Dropped*, IDAHO STATESMAN (Jan. 24, 2025, at 13:26 MT), https://www.idahostatesman.com/news/local/crime/article299030510.html [https://perma.cc/C3R9-QMBA] ("The FBI also ignored internal federal policy in pursuit of the alleged killer when its agents submitted that DNA to a pair of public ancestry databases that law enforcement is restricted from accessing . . . .").

2. State Statutes Regulating Law Enforcement Use of FIGG

Three states have enacted legislation more directly limiting law enforcement's use of FIGG. Montana passed the first such law in 2021, followed by Maryland just a few weeks later.[165] Utah followed in 2023.[166] Each statute aims to provide oversight for law enforcement's use of FIGG but differs substantially in its mechanism and scope.

Maryland's law is the most comprehensive. Modeled after wiretapping statutes,[167] it requires law enforcement to obtain judicial authorization before initiating FIGG.[168] The authorization application must be supported by a sworn affidavit certifying that the case satisfies specific criteria: (i) the crime must involve murder, rape, or a felony posing a substantial and ongoing threat to public safety; (ii) an STR profile must have been developed and entered into CODIS with no matches; and (iii) reasonable investigative leads must have been pursued without identifying the perpetrator[169]—though a 2025 amendment clarified that it is not necessary for all investigative leads to be exhausted.[170] FIGG may only be conducted using databases that provide explicit notice to their users about law enforcement use and seeks their express consent for that use.[171] The statute also regulates the collection of DNA from third parties in substantial detail,[172] imposes criminal liability for unauthorized disclosure,[173] and creates a private right of action for violations.[174]

Montana's law is comparatively minimal, requiring only that a governmental entity obtain a search warrant based on probable cause or demonstrate that the consumer whose information is sought previously waived their privacy interest in it.[175] It contains no provisions on database selection, third-party collection, or remedies for violations.

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165. *See* Paul Zajde, *23andMe and Ancestry Stand to Gain from Montana and Maryland's New Restrictions on Law Enforcement Use of Commercial DNA Databases*, AM. U. BUS. L. REV. BUZZ BLOG (Aug. 23, 2021), https://aublr.org/2021/08/23andme-and-ancestry-stand-to-gain-from-montana-and-marylands-new-restrictions-on-law-enforcement-use-of-commercial-dna-databases/ [https://perma.cc/5734-6MBB]. Interestingly, the Maryland state legislature initially rejected an outright ban on FIGG prior to enacting the current law. *See* H.B. 30, 440th Gen. Assemb., Reg. Sess. (Md. 2019).

166. Bridger Beal-Cvetko, *Legislature Passes 'Sherry Black Bill' to Regulate Genealogy Search by Law Enforcement*, KSL TV (Mar. 1, 2023, at 17:17 MT), https://www.ksl.com/article/news/politics/legislature-passes-sherry-black-bill-to-regulate-genealogy-search-by-law-enforcement/50590451 [https://perma.cc/YB82-7SQ6].

167. *See* Tebah Browne & Barry Scheck, *Regulating Forensic Investigative Genetic Genealogy: The Case for Judicial Oversight and the Bipartisan Model Legislation Passed in Maryland*, JUDGES' J., Spring 2024, at 4, 9.

168. MD. CODE ANN., CRIM. PROC. § 17-102(a)(1) (West 2026).

169. *Id.* § 17-102(b)(1).

170. H.B. 301, 447th Gen. Assemb., Reg. Sess. (Md. 2025).

171. MD. CODE ANN., CRIM. PROC. § 17-102(d) (West 2026).

172. *See id.* § 17-102(f)–(g).

173. *Id.* § 17-102(i)–(j).

174. *Id.* § 17-102(k).

175. *See* MONT. CODE ANN. § 44-6-104 (2025).

Utah's law sits between Maryland's and Montana's in both scope and detail. It limits FIGG to use in violent felony investigations,[176] requires that law enforcement have a DNA profile it reasonably believes to be attributable to the perpetrator and no CODIS match,[177] and conditions FIGG initiation on agreement between law enforcement and the prosecuting agency that FIGG is appropriate and necessary.[178] Like Maryland's law, it regulates when law enforcement may collect DNA from a non-suspect for verification that the third party is a genetic relative of a crime-scene sample, but authorization comes from the prosecuting agency rather than a neutral magistrate.[179] Utah's law also explicitly provides that a defendant has no standing to suppress evidence based on a FIGG violation unless it deprived a defendant of constitutional rights,[180] though a successful civil suit may result in a court order barring a violating officer from participating in FIGG for one year.[181]

So far, only these three states have enacted statutes that directly constrain law enforcement's use of FIGG.[182] Other states have taken a different approach entirely, looking past law enforcement to the companies that hold the data.

B. Indirect Regulation Through Limits on DTC Genetic Testing Companies

Beyond FIGG statutes, more than a dozen states have adopted legislation regulating when a DTC company may disclose a consumer's genetic information to law enforcement.[183] Most of these statutes require either a valid legal process or express consumer consent before a DTC company may disclose genetic data to law enforcement.[184] Vermont does not specifically mention disclosure to law

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176. UTAH CODE ANN. § 53-10-403.7(1)(f)(i) (West 2026).

177. Notably, the language implies that a CODIS search may not necessarily be required. *Id.* § 53-10-403.7(2)(a)(iii) ("[A] routine search of CODIS-eligible profiles, *if any*, developed in the case revealed no DNA matches to the DNA profile." (emphasis added)).

178. *Id.* § 53-10-403.7(2)(a)(iv).

179. *Id.* § 53-10-403.7(3).

180. *Id.* § 53-10-403.7(8)(a).

181. *Id.* § 53-10-403.7(8)(b) (describing that such an order does "not constitute cause for a judgment for monetary damages or attorney fees").

182. Note that none of these statutes specify the information about FIGG that the prosecution must disclose to the defendant. Although a defendant should arguably be permitted to access certain information about FIGG, a court disagreed in at least one case. *See* Order Denying Motion for Discovery at 12, People v. Waller, No. 18FE018342 (Cal. Super. Ct. Oct. 7, 2019), https://meshbasestorage.blob.core.windows.net/dnacontainer/Waller-Court-Ruling.pdf [https://perma.cc/NTG9-BLLC] (analogizing FIGG to an informant and preventing the defendant from obtaining information regarding the familial searches, the genetic genealogy company, and all reports and communications). *See generally* Levine, *supra* note 84 (explaining why FIGG information is not discoverable).

183. *See infra* notes 184–88. Both Indiana and South Dakota regulate DTC genetic testing but expressly exclude testing conducted for law enforcement investigative purposes. *See* IND. CODE § 24-4-24-1(b)(3) (2026); S.D. CODIFIED LAWS § 37-24-60, -64(5) (2026).

184. *See, e.g.*, ALA. CODE § 8-43-3(b) (2026); UTAH CODE ANN. § 13-60-104(1)(d) (West 2026); MD. CODE ANN., COM. LAW § 14-4405(a) (West 2026); MONT. CODE ANN. § 30-23-104(4) (2025); TEX. BUS. & COM. CODE ANN. § 503A.007(a) (West 2025); ARIZ. REV. STAT. ANN. § 44-8002(A)(3) (2026); TENN. CODE ANN. § 47-18-4904(a)(4) (2026); KY. REV. STAT. ANN. § 311.705(2)(c) (West 2026); WYO. STAT. ANN. § 35-32-102(c)(iii) (2026).

enforcement but states that disclosure to a "government entity" requires either "a search warrant issued by a court on a finding of probable cause" or a consumer's "express consent to the disclosure upon being notified."[185] Minnesota and Nebraska diverge from the rest by specifying what legal process is required in the absence of consumer consent. Minnesota requires a valid search warrant or court order,[186] while Nebraska requires exclusively a court order.[187] California, Rhode Island, and Virginia take yet a different approach, requiring express consent for any use of genetic data "beyond the primary purpose of the genetic testing or service and inherent contextual uses," without referencing law enforcement specifically.[188]

The practical effect of these statutes on law enforcement's use of FIGG remains unclear. Two Minnesota Supreme Court cases decided in 2024 alluded to the impact of the state's DTC statute without providing any clear answers. In *State v. Carbo*,[189] the majority declined to address Minnesota's DTC statute, though a concurring justice argued it should have restricted law enforcement's access to the defendant's genetic information.[190] In *State v. Westrom*,[191] the majority noted in a footnote that while the defendant had not challenged the FIGG process, law enforcement should "pay heed to these protections, which evidence the privacy interests of Minnesotans as expressed by the Legislature, in future investigations."[192]

While many DTC statutes share similar elements, the remedies that each state permits for violations vary considerably. Maryland classifies violations of its DTC statute as unfair or deceptive trade practices,[193] exposing companies to injunctions or misdemeanor charges.[194] Nebraska authorized the attorney general to seek fines of $2,500 per violation.[195] Wyoming permits both regulatory fines and

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In 2022, the Governor of Hawaii vetoed a bill that would have similarly restricted a DTC company's disclosure of a consumer's genetic information to law enforcement. *See* Ray Anne Galzote & Manolo Morales, *Gov. Ige Announces Intent to Veto List, Signed Bills for 2022*, KHON2 (June 27, 2022, at 19:27 HT), https://www.khon2.com/local-news/gov-ige-to-release-intent-to-veto-list/ [https://perma.cc/ZH7W-WK23].

185. VT. STAT. ANN. tit. 9, § 2421b(g)(2) (2026). Connecticut has a similar statute effective as of October 1, 2026, that provides that a DTC company may not disclose the "results of any genetic testing . . . to any person other than the consumer" without express consent, a court order, warrant, or subpoena. 2026 Conn. Legis. Serv. P.A. 26-64, § 19(7) (S.B. 4) (West).

186. MINN. STAT. § 325F.995, Subdiv. 2(a)(3) (2025).

187. NEB. REV. STAT. § 87-903(1)(c) (2026).

188. CAL. CIV. CODE § 56.181(a)(2)(C) (West 2026); 6 R.I. GEN. LAWS § 6-63-3(a)(2)(iii) (2026); VA. CODE ANN. § 59.1-596(B)(3) (2026). *See generally* Jane Murphy, *Consumer Protection of Genetic Data: The California Model*, 30 B.U. J. SCI. & TECH. L. 103 (2024) (discussing the history of California's Genetic Information Privacy Act).

189. 6 N.W.3d 114 (Minn. 2024).

190. *Id.* at 134 (Procaccini, J., concurring) ("Minnesotans . . . have repeatedly affirmed their belief that they have a reasonable expectation of privacy in the sensitive personal information contained in their DNA.").

191. 6 N.W.3d 145 (Minn. 2024).

192. *Id.* at 154 n.5.

193. MD. CODE ANN., COM. LAW § 14-4406(a) (West 2026).

194. *Id.* §§ 13-406, 411(a).

195. NEB. REV. STAT. § 87-903(3) (2026).

individual civil actions for damages.[196] While these statutes signal growing recognition that law enforcement's access to consumer genetic data should not go entirely unchecked, whether they provide any protection in practice is a different question entirely. In most states, however, it is not even a question that has been considered.

C. Jurisdictions Without Meaningful Constraints on FIGG

While a growing number of states have taken steps to address FIGG, the majority have not. Many states have enacted some form of a genetic privacy statute, which generally prohibits obtaining genetic information from an individual without their consent.[197] But these statutes almost universally contain broad exceptions for law enforcement use in criminal investigations.[198] The language of those exceptions is often expansive enough to permit covert collection of a genetic relative's DNA sample for the purpose of identifying a suspect, as opposed to a sample from just the suspect.[199] Courts in these jurisdictions have overwhelmingly declined to restrict law

196. WYO. STAT. ANN. § 35-32-104 (2026).

197. *See* ALASKA STAT. § 18.13.010 (2026); WASH. REV. CODE § 19.373.100 (2026); FLA. STAT. § 817.5655 (2026); MASS. GEN. LAWS ANN. ch. 111, § 70G (West 2026); DEL. CODE ANN. tit. 16, § 1202 (2026); NEV. REV. STAT. § 629.171 (2026); N.J. STAT. ANN. § 10:5-45 (West 2026); N.M. STAT. ANN. § 24-21-3 (West 2026); OR. REV. STAT. ANN. § 192.535(1)(a) (West 2026); S.C. CODE ANN. § 38-93-40 (2026); VT. STAT. ANN. tit. 18, § 9332(d) (2026); 410 ILL. COMP. STAT. 513/15 (West 2026); N.H. REV. STAT. ANN. § 141-H:2(III) (2026); IOWA CODE § 729.6(3)(a)-(c) (2026).

198. *See, e.g.*, N.J. STAT. ANN. § 10:5-45 (West 2026) ("No person shall obtain genetic information from an individual, or from an individual's DNA sample, without first obtaining informed consent from the individual . . . . The requirements of this section shall not apply to genetic information obtained . . . [b]y a . . . law enforcement agency for the purposes of establishing the identity of *a person* in the course of a criminal investigation." (emphasis added)). A criminal defendant in Iowa tried to challenge FIGG under Iowa's Genetic Privacy statute by claiming that the section required a warrant for genetic testing, but the Court said that the legislature should have included that requirement textually if it intended for such a requirement. *See* State v. Burns, 988 N.W.2d 352, 366 (Iowa 2023), *cert. denied*, 144 S. Ct. 288 (2023).

199. *See, e.g.*, OR. REV. STAT. § 192.535(1)(a) (West 2026) ("A person may not obtain genetic information . . . from an individual's DNA sample, without first obtaining informed consent of the individual . . . except . . . for the purpose of *establishing the identity of a person in the course of an investigation* conducted by a law enforcement agency." (emphasis added)).

enforcement's use of the technique[200] and have often characterized FIGG as merely a tool used to generate leads.[201]

Some states have moved further away from enacting any form of regulation. Florida established a grant program specifically designed to assist law enforcement agencies in utilizing FIGG to develop investigative leads in unsolved violent crimes,[202] requiring grant recipients to report annually on the cases pursued, methods used, and identifications made.[203] Similarly, the Hampden District Attorney's Office in Massachusetts made a public call to action, offering to cover the cost of community members' genetic testing and asking them to "Become a Hero" by participating for the purpose of FIGG investigations.[204]

Taken together, these three regulatory approaches reflect the full range of ways states have chosen to engage with FIGG. That range itself is part of the problem, as Part IV makes clear.

IV. ANALYZING STATE APPROACHES TO FIGG

In short, current state approaches fail to meaningfully confront the privacy, consent, and accountability concerns that FIGG raises. Although states have taken different approaches, each existing regulatory model fails for a different reason: direct law enforcement limits collapse across state lines,[205] proxy regulation of law enforcement through DTC companies depends on a framework not developed to consider consent in the context of shared genetic information,[206] and reliance on

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200. *See, e.g.*, People v. Lepere, 308 Cal. Rptr. 3d 558, 562–65 (Ct. App. 2023) (rejecting defendant's argument that a warrant issued based on a SNP profile had no probable cause and finding sufficient evidence that a search of the defendant's trash would link defendant to the crime); McCurley v. State, 653 S.W.3d 477, 493–94 (Tex. Ct. App. 2022) (assuming without deciding that any error in the trial court's denial of defendant's challenge to the admissibility of the lab's FIGG analysis was harmless); State v. Hartman, 534 P.3d 423, 438 (Wash. Ct. App. 2023), *rev. denied*, 540 P.3d 778 (Wash. 2024) (holding that the defendant did not have standing to challenge the match between his genetic relatives' DNA and the crime-scene DNA because his relatives consented to the company's privacy policy, which at the time allowed unrestricted access for law enforcement); Order on Defendant's Motion to Dismiss and All Other Pending Motions at *17 n.7, State v. Follette, No. CR-02-910 (Me. Super. Ct. Aug. 28, 2024) (rejecting defendant's challenge to Othram's DNA analysis because DNA at a crime scene is abandoned with no expectation of privacy).

201. *See, e.g.*, State v. Bortree, No. 8-20-67, 2021 WL 3716803, at *20 (Ohio Ct. App. Aug. 23, 2021), *rev'd and remanded on other grounds*, 212 N.E.3d 874, 876 (Ohio 2022) (characterizing FIGG as a tool to narrow an investigation). As is discussed more fully below, this framing ignores the reality that FIGG is often a tool used as a last resort when there are no other leads. *See infra* notes 244–45 and accompanying text.

202. FLA. STAT. § 943.327 (2026). Such funding is specifically designed to be used for SNP profiles. *Id.* § 943.327(1) ("[F]unding is intended to be used for developing genealogy DNA profiles consisting of 100,000 or more markers.").

203. *Id.* § 943.327(5).

204. *Forensic Investigative Genetic Genealogy*, HAMPDEN DIST. ATT'Y, https://hampdenda.com/news/forensic-genetic-genealogy/ [https://perma.cc/Y4J5-23AA] (last visited Jan. 8, 2026).

205. *See infra* Section IV.A.

206. *See infra* Section IV.B.

existing doctrine leaves FIGG's accountability concerns entirely unaddressed.[207] This Part examines the gaps in each category to demonstrate the limits of existing FIGG regulation.

A. The Scope of Law Enforcement Constraints

Direct limits on law enforcement may appear to be the most intuitive response to FIGG's privacy risks. In practice, though, their force weakens quickly. Part of the problem is that even the states that directly regulate law enforcement have safeguards that differ dramatically. The other part is that the databases are national, so investigators in a permissive state can reach the same data that a protective state's residents appear in without triggering the protective state's safeguards.[208]

Starting with the variation, even the jurisdictions that directly regulate FIGG diverge sharply on what their protections actually cover. Utah and the DOJ Interim Policy provide that FIGG results alone are not enough for an arrest.[209] In contrast, Montana and Maryland are silent, leaving open whether a familial match is sufficient to take someone into custody.[210] Only Maryland and the DOJ Interim Policy prohibit using a DNA sample to derive medical information.[211] Maryland is the only state to contemplate credentialing requirements for genetic genealogists, though the impact of those requirements is debatable.[212]

The oversight mechanisms vary just as significantly. Maryland requires judicial authorization before FIGG can begin,[213] Montana requires a warrant or investigative subpoena,[214] and Utah requires agreement between law enforcement and the prosecuting agency.[215] That same prosecutor could later rely on FIGG's results at trial, creating a conflict of interest that undermines the oversight function entirely.

One objection to judicial authorization requirements is that they impose an undue burden on law enforcement. However, studies of electronic warrant systems find that judicial authorization can be obtained fairly quickly, and the vast majority

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207. *See infra* Section IV.C.

208. *See infra* notes 222–23 and accompanying text.

209. *See* UTAH CODE ANN. § 53-10-403.7(6) (West 2026); DOJ INTERIM POLICY, *supra* note 155, at 4.

210. *See supra* Subsection III.A.2. For a case testing the validity of FIGG results forming the basis of probable cause to issue an arrest warrant, see generally Knapp v. Goudschaal, No. 3:24-CV-05118-DGE, 2025 WL 2306534 (W.D. Wash. Aug. 11, 2025).

211. *See* MD. CODE ANN., CRIM. PROC. § 17-102(c) (West 2026); DOJ INTERIM POLICY, *supra* note 155, at 6–7.

212. Patrick Terpstra, *Maryland Quietly Shelves Parts of Genealogy Privacy Law*, WMAR-2 NEWS (Sep. 21, 2022, at 09:39 MT), https://www.wmar2news.com/infocus/maryland-quietly-shelves-parts-of-genealogy-privacy-law [https://perma.cc/EWM6-WF8X].

213. MD. CODE ANN., CRIM. PROC. § 17-102(a)–(b) (West 2026).

214. MONT. CODE ANN. § 44-6-104(1) (2025).

215. UTAH CODE ANN. § 53-10-403.7(2)(a)(iv) (West 2026).

of applications are approved on the first submission.[216] More importantly, requiring law enforcement to justify the decision to initiate FIGG to a judge and attaching a penalty to the failure to follow proper procedures ensures at least some critical evaluation of the law's requirements and provides accountability and visibility that existing FIGG initiation lacks.

The remedies attached to existing statutes suggest that without that check, the requirements for initiating FIGG are often not critically evaluated. Maryland creates a private right of action and imposes criminal liability for violation,[217] while Utah's primary remedy is a civil suit that could bar a violating officer from participating in FIGG for one year.[218] Montana is silent entirely,[219] and the DOJ Interim Policy explicitly forecloses external accountability.[220] Since suppression would be difficult to obtain under current Fourth Amendment doctrine,[221] law enforcement has little incentive to comply when the consequence is little more than a proverbial slap on the wrist.

Varied state approaches would be significant if FIGG were a purely local technique, but it is interstate by its very nature. The likelihood that all of a person's genetic relatives out to a fifth-cousin relationship reside within a single state is effectively zero, and investigations cross state lines routinely.[222] Even a Maryland resident protected by the most comprehensive FIGG statute is not insulated from an investigation run out of a permissive state that reaches into the same national databases without triggering Maryland's protections. Decentralized regulation also creates a "race to the bottom."[223] States responding to political pressure in high-profile cases may adopt increasingly lax standards, and because DTC databases are not contained within a single jurisdiction, stricter states cannot insulate their residents from the consequences of other states' decisions.

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216. *See* Miguel F.P. de Figueiredo, Brett Hashimoto & Dane Thorley, *Unwarranted Warrants? An Empirical Analysis of Judicial Review in Search and Seizure*, 138 HARV. L. REV. 1959, 2040–42 (2025).

217. MD. CODE ANN., CRIM. PROC. § 17-102(k) (West 2026).

218. UTAH CODE ANN. § 53-10-403.7(8)(b)(i) (West 2026).

219. *See* MONT. CODE ANN. § 44-6-104 (2025).

220. DOJ INTERIM POLICY, *supra* note 155.

221. *See supra* Section II.A.

222. *See* State v. Westrom, 6 N.W.3d 145, 151–52 (Minn. 2024), *cert. denied*, 145 S. Ct. 418 (2024) (discussing how police trailed the defendant to a hockey game in Wisconsin to collect a napkin to compare against a crime-scene sample after FIGG identified the defendant as a likely suspect); Order on Defendant's Motion to Suppress Re: Genetic Information at 5, State v. Kohberger, No. CR01-24-31665 (Idaho 4th Jud. Dist. Feb. 19, 2025), https://meshbasestorage.blob.core.windows.net/dnacontainer/021925-Order-Defendants-Motion-Suppress-Genetic-Information.pdf [https://perma.cc/F4XA-TTYH] (describing how police conducted a trash pull at defendant's parents' house in Pennsylvania to match DNA to the crime-scene sample).

223. *Cf.* Roger Martin, *Racing to the Bottom*, MEDIUM (Nov. 18, 2024), https://rogermartin.medium.com/racing-to-the-bottom-ce2fc7bf2240 [https://perma.cc/WR7L-3ZFN] ("The term 'race to the bottom' is generally seen to have been coined by legendary Supreme Court Justice Louis Brandeis . . . in the context of jurisdictions attempting to entice companies to move or set up shop in them with evermore lax regulations — racing to the bottom of regulatory oversight.").

Federal regulation is the most obvious response to this problem, but it carries its own risks. The federal wiretap statute, which determines when law enforcement may intercept private communications, offers a useful and cautionary comparison.[224] Title III of the Omnibus Crime Control and Safe Streets Act of 1968 imposes heightened procedural requirements on law enforcement before electronic surveillance may occur, including judicial preauthorization,[225] limitations on qualifying offenses,[226] and minimization requirements.[227] These safeguards reflect the principle that certain investigative methods are sufficiently intrusive to justify more stringent oversight than an ordinary warrant requirement. FIGG raises the same concerns, and, in fact, Maryland's statute is explicitly modeled on Title III's framework.[228]

Yet Title III's history also illustrates the limits of procedural safeguards alone. Over time, the scope of permissible wiretaps expanded, the list of qualifying offenses grew, and courts began applying the statutory requirements with considerable deference to investigators.[229] Rather than constraining surveillance, the statute ultimately normalized it.[230] FIGG regulation risks following the same path[231]—its efficacy will depend heavily on whether the regulatory structure can resist pressure to reduce privacy protections in favor of solving crime.[232]

Moreover, a federal FIGG statute negotiated through the current Congress might produce something weaker than Maryland's existing law, with significant law enforcement carve-outs and the illusion of protection. Federal legislation also does not automatically produce compliance. Even a federal framework could be violated with minimal consequence if law enforcement has little incentive to comply.[233] It still requires legitimate remedies and genuine accountability mechanisms. The more realistic near-term path is targeted state-level reform built around a framework that

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224. *See* Title III of the Omnibus Crime Control and Safe Streets Act of 1968, 18 U.S.C. §§ 2510–22.

225. *See id.* §§ 2511(2)(a)(i)–(ii), 2518(3).

226. *See id.* § 2516.

227. *See id.* § 2518(5). Interestingly, Title III also requires investigators to show that they have already tried other investigative methods to obtain the desired information and failed, requires the government to provide notice of wiretaps in specific circumstances, and provides suppression as a remedy for violating the statute. *See id.* §§ 2515, 2518(1)(c), 2518(8)(d).

228. *See* Browne & Scheck, *supra* note 167.

229. *See generally* Jennifer S. Granick et al., *Mission Creep and Wiretap Act 'Super Warrants': A Cautionary Tale*, 52 LOY. L.A. L. REV. 431 (2019) (discussing the history of the Wiretap Act and the subsequent degradation of the privacy protection the act supposedly afforded).

230. *Id.* at 441.

231. Even more interestingly, the justification for enacting the Wiretap Act is eerily similar to the policy articulated in this Note. *See id.* at 440 ("It appears Congress felt squeezed between 'being urged to *authorize* eavesdropping in order to combat crime' and 'counterpressures to *ban* it in order to protect privacy.'" (quoting EDITH J. LAPIDUS, EAVESDROPPING ON TRIAL 13 (1974))).

232. *See id.* at 459–60.

233. *See supra* notes 217–21 and accompanying text.

at least contemplates the gaps in current regulation rather than leaving each state to develop its own approach in isolation.

B. The Pretense of Proxy Regulation

States that regulate DTC companies essentially attempt to solve the FIGG problem by regulating law enforcement indirectly, relying on the companies and their privacy policies to serve as gatekeepers to misuse. Perhaps this is because DTC companies are fewer in number than law enforcement agencies, are already regulated entities in other contexts, and represent a checkpoint in the FIGG process that is theoretically easier to monitor. Because of these factors, a proponent might argue that DTC regulation will produce more results even if it is weaker than direct regulation.

The issue is that DTC companies have proven to be unreliable gatekeepers of genetic information, and there is little reason to believe that stronger DTC regulation would solve the issue entirely. GEDmatch initially did not permit law enforcement access but expanded access for law enforcement under pressure.[234] FamilyTreeDNA discreetly allowed the FBI to access its database without notifying its users.[235] 23andMe, which held millions of customers' genetic data, filed for bankruptcy with no clear plan for what would happen to their information next.[236] These are not isolated incidents but rather reflect a pattern of private companies not prioritizing customers' privacy when government interest is high and legal restrictions are minimal.

The assumption of consumer consent underlying DTC regulation only compounds the problem. Most DTC companies require either valid legal process[237] or express consent[238] before a company may disclose genetic data to law enforcement, but a consumer's acknowledgement of a company's terms is viewed as satisfying the consent requirement in most jurisdictions. In addition, that understanding of consent does not hold when one person's decision to participate in a genealogy database effectively binds every biological relative they have.[239] Regulation built around consumer consent cannot effectively constrain conduct if that consent fails to take into account shared genetic information.

Ultimately, DTC statutes misunderstand the core question regarding FIGG's use: under what circumstances should the government be permitted to use private genetic databases as an investigative tool? The central risk of misuse

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234. *See supra* notes 143–45 and accompanying text.

235. *See* Matthew Haag, *FamilyTreeDNA Admits to Sharing Genetic Data with F.B.I.*, N.Y. TIMES (Feb. 4, 2019), https://www.nytimes.com/2019/02/04/business/family-tree-dna-fbi.html [https://perma.cc/3QFU-6JFU] ("[U]nbeknown to its users, the Houston-based firm quietly and voluntarily agreed in 2018 to open its database of more than two million records to the F.B.I. and examine DNA samples in its laboratory to identify suspects and victims of unsolved rapes and murders.").

236. *See* Hernandez, *supra* note 19.

237. *See, e.g.*, ALA. CODE § 8-43-3(b) (2026).

238. *See, e.g.*, TENN. CODE ANN. § 47-18-4902(6) (2026) ("'Express consent' means a consumer's affirmative response to a clear, meaningful, and prominent notice regarding the collection, use, or disclosure of genetic data for a specific purpose.").

239. *See supra* notes 147–50 and accompanying text.

emerges from law enforcement's access to consumer databases, though there are undoubtedly still privacy concerns caused by DTC companies themselves.[240] However, even if every DTC company became a reliable gatekeeper of genetic information, it still would not answer this core question. That is a question about the scope of government power and answering it requires critically examining where the line falls.

C. The Fiction of Doctrinal Sufficiency

States that impose no limits on FIGG implicitly assume that existing constitutional doctrine is sufficient to manage whatever concerns the technique raises. That assumption is inherently flawed because the Fourth Amendment's protections are built on individualized suspicion and searches, which means they are not designed to regulate technologies that search thousands of individuals' information at once.[241] The consequences of that assumption extend beyond the privacy harms that the Fourth Amendment is designed to address and into the accountability gap that the doctrinal mismatch produces.

The doctrinal gap begins with standing. Defendants lack standing to challenge a search of their genetic relatives' information,[242] even though that search is precisely what led law enforcement to focus on a particular suspect. Relatives whose DNA was used likewise have no notice that they were implicated and no avenue for challenging the use of their information even if the process was conducted improperly.[243] The investigative-lead framing many courts have adopted makes this worse.[244] Characterizing FIGG as merely a preliminary tool allows courts

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240. *See* Memorandum from Office of the Secretary of Defense to Department of Defense Personnel (Dec. 20, 2019) (on file with *Arizona Law Review*) (advising military members to avoid using DTC genetic testing services); Nina F de Groot, Britta C van Beers & Gerben Meynen, *Commercial DNA Tests and Police Investigations: A Broad Bioethical Perspective*, 47 J. MED. ETHICS 788, 791 (2021) ("DTC companies often make use of so-called 'wrap contracts' . . . [which] are far removed from the standard of informed consent that is employed when genetic data collection and analysis take place in a traditional medical setting."). *But cf.* Elias Rios III, Note, *DNA Dystopia: How the National Security Apparatus Could Map the Entire Genome of America Without Violating the Fourth Amendment or the Constitutional Right to Privacy*, 87 BROOK. L. REV. 1387, 1420–21 (2022) (explaining that DTC genetic testing kits should *not* be declared a national security threat because then genetic data could be misused and exploited by the national security apparatus).

241. *See supra* Section II.A.

242. *See, e.g.*, Kody, *supra* note 61, at 302–03; Rebecca Smyth, Note, *We Are the 0.1%: Invasion of Privacy Issues for Direct-to-Consumer Genetic Testing*, 32 ALB. L.J. SCI. & TECH. 344, 350–54 (2022). Moreover, the abandoned property doctrine would arguably apply to discarded DNA samples at a crime scene, meaning that a defendant would have no reasonable expectation of privacy in the information. *See supra* Section II.B. The right to privacy could potentially provide another avenue for conferring standing, though that would also involve a doctrinal expansion. *See* Christine Guest, *DNA and Law Enforcement: How the Use of Open Source DNA Databases Violates Privacy Rights*, 68 AM. U. L. REV. 1015, 1035–42 (2019) (arguing that open-source DNA databases violate a suspect's and their family's right to privacy).

243. *See* Smyth, *supra* note 242, at 352–54.

244. *See, e.g.*, State v. Bortree, No. 8-20-67, 2021 WL 3716803, at *20 (Ohio Ct. App. Aug. 23, 2021), *rev'd and remanded on other grounds*, 212 N.E.3d 874 (Ohio 2022)

to avoid engaging seriously with the constitutional questions the technique raises. FIGG is most commonly used when no other investigative avenue remains,[245] making it the foundation of the investigation. Treating it as a preliminary matter before the real investigative work begins ignores the fact that FIGG is often the linchpin that allows for every subsequent step to occur at all.

This accountability gap extends beyond the courtroom. Largely, there is no public record of how often FIGG is being used, in what kinds of cases, by personnel with what qualifications, or with what results. There is also no mechanism for identifying patterns of error before they produce wrongful investigations or convictions.[246] Most FIGG investigations do not attract the level of attention that the Golden State Killer or Bryan Kohberger did,[247] and errors that occur may never surface.

States that have done nothing have effectively delegated accountability for FIGG to a constitutional doctrine that was never designed to provide it. Existing doctrine requires someone with standing to raise a claim, a court willing to engage with it, and a remedy worth pursuing—none of which definitively exist in the FIGG context.

V. A MODEL STATUTORY FRAMEWORK FOR FIGG

The failures identified in Part IV demonstrate that what states are currently doing is not working. Federal legislation would be the most straightforward response to these problems, but it is not a realistic near-term outcome. In addition, any federal FIGG statute negotiated through Congress currently would likely reflect the same compromises that have weakened privacy frameworks in other surveillance contexts.[248] Even so, the absence of a coherent regulatory framework allows FIGG to operate without the structure and oversight that its power necessitates. The Model FIGG Act is designed to provide that structure at the state level, directly confronting each of the weaknesses identified in Part IV while acknowledging the limits of what state-level reform can accomplish.[249]

(characterizing FIGG as merely a tool used in narrowing the focus of law enforcement where the defendant challenged the validity of the FIGG search).

245. *See, e.g.*, News Release, Wash. Att'y Gen., Multiple Cold Cases Solved with Assist from Attorney General's DNA Forensic Genetic Genealogy Program (July 11, 2022), https://www.atg.wa.gov/news/news-releases/multiple-cold-cases-solved-assist-attorney-general-s-dna-forensic-genetic [https://perma.cc/8MSX-SNC7] (stating that as of mid-2022, Washington law enforcement had only used FIGG in about two dozen cases, with the technology "reserved for unsolved cold cases of felony crimes with a sexual motivation" that had "no active leads and no CODIS matches").

246. *See supra* Section I.D.

247. *See supra* notes 1–5 and accompanying text.

248. *See supra* notes 224–32 and accompanying text.

249. The Act draws on critiques of current regulatory approaches and the National Technology Validation and Implementation Collaborative Steering Committee's guidelines for FIGG programs. *See generally* Ray A. Wickenheiser et al., *National Technology Validation and Implementation Collaborative (NTVIC): Guidelines for Establishing Forensic Investigative Genetic Genealogy (FIGG) Programs*, 7 FORENSIC SCI. INT'L: SYNERGY 1 (2023), https://www.sciencedirect.com/science/article/pii/S2589871X2300133X

A. Overview of the Model FIGG Act

The Act's first substantive provision requires law enforcement to obtain prior approval before initiating FIGG, limiting its use to serious offenses and requiring a showing that traditional investigative methods have been pursued. This requirement is intended to ensure that FIGG operates as a last-resort technique rather than a routine investigative tool.

The Act further imposes a warrant-like authorization process tailored to FIGG. Although FIGG does not fit neatly within traditional Fourth Amendment protections, this section aims to provide familiar oversight mechanisms while recognizing the inadequacy of a traditional search warrant.

In addition, the Act restricts law enforcement access to only those genetic databases that provide clear notice and obtain user consent for law enforcement use. The Act also regulates the overt and covert collection of DNA from third parties by requiring informed consent or judicial authorization, meaning that law enforcement cannot surveil a suspected genetic relative without demonstrating that obtaining informed consent would destroy the investigation. Both of these sections target steps in the process where third parties may unknowingly become involved in the investigation, aiming to reduce the degree to which FIGG's investigative reach operates without the knowledge of those it affects.

To address longer-term privacy concerns, the Act limits how genetic data obtained through FIGG may be used and requires the deletion of irrelevant data. These safeguards are designed to prevent the indefinite retention and secondary use of sensitive genetic information.

The Act then provides enforceable remedies, including suppression and civil liability, to ensure that its requirements meaningfully constrain law enforcement conduct. This section also aims to give criminal defendants access to the appropriate information to challenge the FIGG process, ensuring that the defense can identify and vindicate any violated rights.

Lastly, the Act creates an oversight board composed of experts in the FIGG realm and establishes a variety of board functions aimed at ensuring accountability and transparency in how law enforcement is using FIGG in the community.

B. Limitations and Practical Constraints of the Model FIGG Act

While the Model FIGG Act addresses many of the intrinsic failures identified in each of the regulatory categories above, there are several challenges to its effectiveness. First, the interstate spillover problem is not resolved. Even if every state enacted a version of the model statute, states would still vary in their approaches, likely compromising on provisions to get the statute passed. This re-creates many of the same concerns about effectively protecting residents that this Note has identified. The problem is nationwide in nature, and a model statute is ultimately a second-best response to it.

[https://doi.org/10.1016/j.fsisyn.2023.100446] (providing guidance for crime laboratories and investigative agencies establishing FIGG programs).

Second, the Model FIGG Act does not resolve the consent issues inherent in shared genetic information. Providing implicated parties with remedies to encourage law enforcement compliance does not change the fact that a single person can still consent on behalf of all their present and future genetic relatives. This is a doctrinal limitation that no state statute can presently reach.

Third, there are still real reliability concerns inherent in DNA analysis. The Act ensures that there is more transparency in the FIGG process with the goal of achieving meaningful accountability, but it does not entirely eliminate those reliability concerns and there is no guarantee that all errors would be discovered.

Finally, the administrative burdens the Act imposes and the current political climate make it unlikely that many states will seriously consider adopting it. For example, creating an oversight board would improve regulation, but establishing and maintaining it would require substantial resources for it to live up to its potential.

Even if widespread enactment is unlikely under current political conditions, the Model FIGG Act illustrates the gap between existing regulatory approaches and what genuine accountability for FIGG's use would require.

CONCLUSION

FIGG sits at a crossroads. It is, without question, a remarkable investigative tool. It has provided families with answers they had long given up hope of finding and helped bring perpetrators of decades-old crimes to justice. The Golden State Killer was finally identified. Bryan Kohberger was arrested within weeks.[250] Those outcomes are important. Behind every cold case are real victims, real families, and communities that have lived for years under the weight of unresolved violence. FIGG offers answers that the criminal justice system has too often failed to provide.

But both of those cases could have been solved under a regulatory framework like Maryland's, and this Note has shown that FIGG's promise cannot be separated from its risks. Precisely because the technique is so powerful, it creates equally powerful incentives to expand its use without fully confronting the privacy, consent, and accountability concerns it raises. A state that leaves FIGG unregulated permits law enforcement to access genetic and genealogical information with little meaningful oversight. A state that adopts a more protective approach still cannot shield its residents from out-of-state investigations that reach into the same genetic databases without triggering those safeguards.

That patchwork problem also illustrates a governance problem. Smaller communities and under-resourced jurisdictions are especially poorly positioned to navigate a maze of inconsistent state requirements when an investigation crosses state lines.[251] A more uniform framework would not only better protect genetic

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250. *See* Shapiro, *supra* note 5.

251. A few organizations fund FIGG for investigative agencies that cannot afford it themselves. *See, e.g.*, *About Season of Justice*, SEASON OF JUST., https://seasonofjustice.org/about-season-of-justice/ [https://perma.cc/69MG-4BB8] (last visited Mar. 12, 2026). But because these organizations decide which cases to fund, their choices may deepen existing disparities between cases involving white victims and those

privacy but would also make compliance more realistic, reduce the risk of arbitrary or abusive use, and promote the kind of institutional trust that FIGG's long-term legitimacy depends on.

Accountability concerns are especially pressing in an era when individuals are increasingly asked to surrender sensitive personal information to private companies with little practical understanding of how that information may later be accessed, shared, or used. Genetic data is different not only because of what it reveals about one person, but because of what it reveals about many others who never had the opportunity to consent. In that sense, FIGG tests whether the law is willing to recognize that privacy harms can be shared, relational, and difficult to see until the damage has already been done.

Federal regulation may be the most straightforward solution to the interstate spillover issue, but it is not a realistic near-term outcome. What is realistic is targeted legislative reform at the state level—reform that takes FIGG's extraordinary investigative value seriously without allowing that value to eclipse the need for meaningful limits.[252] Regulating FIGG is not about choosing privacy over justice. It is about obtaining justice through legitimate, accountable avenues, which should always be the objective.

MODEL FIGG ACT

(1) Definitions. For the purposes of this Act:

(a) "Accredited laboratory" means a forensic laboratory accredited by the ANSI National Accreditation Board or an equivalent organization recognized by the Oversight Board.

(b) "Certified genetic genealogist" means an individual who conducts genealogical analysis using genetic data and traditional genealogical records and is certified by the Board for Certification of Genealogists.

(c) "Covert DNA collection" means the acquisition of a DNA sample from an individual when that individual had no knowledge of such acquisition at the time of collection.

(d) "Forensic Investigative Genetic Genealogy" or "FIGG" means a law enforcement investigative technique that: (i) analyzes single nucleotide polymorphisms derived from a forensic sample; (ii) compares that data to genetic genealogy databases; and (iii) uses genealogical research to identify

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involving victims who are people of color. *Cf.* Naomi Ishisaka, *Contrasting Coverage of Gabby Petito Case and Missing and Murdered Indigenous People Shows 'Absolute Injustice*,' SEATTLE TIMES (Sep. 27, 2021, at 06:00 MT), https://www.seattletimes.com/seattle-news/contrasting-coverage-of-gabby-petito-case-and-missing-and-murdered-indigenous-people-shows-absolute-injustice/ [https://perma.cc/9AGN-E6ER] (discussing "missing white woman syndrome," the tendency for disappearances of young, conventionally attractive white women to draw tremendous publicity while those of Indigenous women and other people of color go largely ignored).

252. This type of targeted legislative reform is exactly what produced Utah's FIGG statute, known as the "Sherry Black Bill." *See* Beal-Cvetko, *supra* note 166 ("[T]he bill protects individual rights, while still giving law enforcement access to a valuable tool.").

individuals who may share a recent common ancestor with the source of the forensic sample.

(e) "Forensic sample" means biological material lawfully collected by law enforcement from a crime scene or unidentified human remains and reasonably believed, based on articulable facts, to contain DNA from the perpetrator or decedent.

(f) "Informed consent" means consent that is: (i) given voluntarily and without coercion; (ii) obtained after disclosure of the specific purpose and scope of law enforcement use; and (iii) accompanied by notice that refusal will not, by itself, result in adverse legal consequences.

(g) "Judicial authorization" means a written order issued by a judge of competent jurisdiction upon review of a sworn affidavit satisfying the requirements of this Act.

(h) "Putative perpetrator" means an individual reasonably believed by law enforcement to have committed a specific crime and to be the source of a forensic sample, though not yet definitively identified.

(i) "Qualifying offense" means: (i) murder or attempted murder; (ii) sexual assault; or (iii) a felony offense presenting an articulable, ongoing threat to public safety, supported by specific facts in a sworn affidavit.

(j) "SNP" means a variation occurring at a single nucleotide position in a DNA sequence.

(k) "STR" means a segment of DNA in which a short sequence of nucleotides is repeated a variable number of times at a specified location on a chromosome.

(l) "Third party" means an individual whose genetic information is searched, analyzed, or relied upon during FIGG and who is neither the subject of the investigation nor identified as a putative perpetrator.

(2) Judicial Authorization.

(a) Law enforcement shall not initiate FIGG unless a judge issues judicial authorization before any SNP analysis or genetic genealogy search is conducted.

(b) A court shall issue judicial authorization only upon a sworn affidavit establishing all of the following:

(i) The investigation concerns a qualifying offense;

(ii) The forensic sample was lawfully obtained and is reasonably believed to originate from a putative perpetrator;

(iii) An STR profile derived from the forensic sample has been searched against CODIS with no identifying match; and

(iv) Conventional investigative techniques have been employed and documented as having failed or being insufficient to identify the perpetrator without FIGG.

A conclusory assertion that investigative leads are exhausted shall not satisfy subsection (b)(iv).

(3) Scope and Evidentiary Limits.

(a) FIGG shall be used solely to generate investigative leads.

(b) Information derived from FIGG shall not, by itself, establish reasonable suspicion, probable cause, or serve as the sole basis for arrest or a charging decision.

(c) Prior to any arrest or charging decision, law enforcement shall obtain a confirming STR match between the forensic sample and a reference sample from the putative perpetrator, conducted by an accredited laboratory.

(d) Genetic analysis conducted pursuant to this Act shall not be used to derive information about medical conditions, physical traits unrelated to identity, or psychological characteristics.

(4) Database Use and Consent.

(a) Law enforcement may conduct FIGG only in a genetic genealogy database that: (i) provides users with explicit notice, separate from general terms of service, that law enforcement access is permitted; and (ii) requires affirmative opt-in consent for such access.

(b) Agreement to general terms of service shall not constitute opt-in consent for purposes of this Act.

(c) Law enforcement shall identify itself to any database used and comply with all database-specific restrictions governing law enforcement access.

(5) Third-Party DNA Collection.

(a) Law enforcement shall obtain informed consent before collecting a reference sample from a third party and shall disclose that: (i) the individual is not suspected of a crime; (ii) participation is voluntary; and (iii) refusal shall not, by itself, justify further investigative action.

(b) Law enforcement may seek judicial authorization for covert DNA collection only upon a showing that seeking informed consent would create a specific and articulable risk of evidence destruction, witness intimidation, or flight, and that the proposed collection is narrowly tailored.

(c) Anticipated refusal, inconvenience, or investigative delay shall not justify covert collection.

(6) Personnel and Laboratory Standards.

(a) SNP and STR analysis conducted pursuant to this Act shall be performed only by an accredited laboratory.

(b) Genealogical analysis relied upon to generate investigative leads shall be performed by a certified genetic genealogist.

(7) Retention, Destruction, and Data Security.

(a) All genetic information obtained pursuant to this Act shall be treated as confidential investigative information, with access limited to personnel directly assigned to the investigation, accredited laboratory personnel, and certified genetic genealogists retained for authorized purposes.

(b) Law enforcement shall implement administrative, technical, and physical safeguards to prevent unauthorized access, maintain audit logs, and ensure compliance with retention and destruction requirements.

(c) Genetic information relating to third parties shall be retained only for the minimum period necessary to complete the authorized investigation. Upon conclusion of an investigation without arrest or charging, law enforcement shall destroy all FIGG-derived genetic information. Upon final judgment of any criminal proceeding arising from FIGG, the court shall order destruction of all FIGG-derived genetic information.

(d) Upon confirmation of an STR match and arrest, law enforcement shall request removal of any genetic profiles from all DTC databases used and document compliance.

(8) Disclosure and Remedies.

(a) In any criminal proceeding involving FIGG, the prosecution shall disclose to the defendant: (i) the application and order authorizing FIGG; (ii) the identity, qualifications, and certification status of any genetic genealogist involved; and (iii) the protocols governing genetic and genealogical analysis. A defendant may depose any genetic genealogist whose work materially contributed to the investigation.

(b) A defendant may move to suppress evidence derived from FIGG upon a showing of a material violation of this Act. A technical or de minimis violation that did not prejudice the defendant shall not warrant suppression.

(c) Any individual whose genetic information was collected, retained, analyzed, or disclosed in violation of this Act may bring a civil action seeking: (i) injunctive relief, including destruction of improperly retained genetic information; (ii) actual damages; (iii) statutory damages of not less than $1,000 for a negligent or reckless violation and not less than $1,000 nor more than $10,000 for a willful violation; and (iv) reasonable attorney's fees and costs.

(9) Oversight Board and Reporting.

(a) This Act establishes an Investigative Genetic Genealogy Oversight Board to monitor and report on the use of FIGG under this Act. The Board shall be composed of seven voting members appointed by the Governor: a sitting or retired judge with criminal law experience; a prosecutor; a criminal defense attorney; a law enforcement official; a forensic genetic scientist; a certified genetic genealogist; and an individual with expertise in data privacy or bioethics. Board members shall recuse themselves from any matter in which they have a direct professional or financial interest.

(b) The Board shall conduct annual compliance reviews of law enforcement agencies and accredited laboratories, recognize equivalent accrediting and certifying organizations, issue annual public reports summarizing FIGG use and recommending legislative reform, and refer patterns of noncompliance to appropriate authorities.

(c) Each law enforcement agency initiating FIGG shall submit an annual report to the Board containing: (i) the number of applications submitted, granted, denied, or withdrawn; (ii) the qualifying offenses involved; (iii) the number of database searches conducted; (iv) the number of third-party reference samples requested, consented to, refused, or covertly collected; (v) the number of cases in which FIGG contributed to identification, STR confirmation, arrest, or the filing of charges; (vi) average time between authorization and termination; and (vii) any known data breaches, unauthorized disclosures, or material violations.

(d) The Board shall publish an annual public report aggregating the information reported under subsection (c), excluding potentially identifying information, and identifying systemic compliance concerns, enforcement gaps, and best practices.