# INVESTIGATIVE GENETIC GENEALOGY AND THE FIRST AMENDMENT RIGHT TO NONINTERFERENCE WITH RECEIPT

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#### INTRODUCTION

In March 2018, the individual previously known only as "Buckskin Girl" was identified as Marcia Lenore Sossoman King.<sup>1</sup> King had been murdered in 1981 in Troy, Ohio, but no one came forward to identify her, and traditional DNA methods failed to turn up her name.<sup>2</sup> It took a new technique, derived from a well-worn genealogy hobbyist tool, to help solve the case.<sup>3</sup> That technique is now variously known as investigative genetic genealogy (IGG), forensic genetic genealogy, forensic investigative genetic genealogy, or forensic genealogy analysis and searching.<sup>4</sup> A month after King was identified, IGG was used to help reveal the identity of the infamous "Golden State Killer" who had terrorized Californians throughout the 1970s and 1980s.<sup>5</sup> Since that time, IGG has been used to help resolve over 800 cases.<sup>6</sup>

Almost immediately, IGG attracted concerned attention from privacy advocates, defense attorneys, constitutional scholars, the Federal Bureau of Investigation (FBI), and state legislators.<sup>7</sup> These concerns ranged from the reasonable (that IGG practitioners should only use genetic genealogy databases where users have given their consent for IGG searching) to the

<sup>&</sup>lt;sup>\*</sup> I would like to thank two anonymous reviewers for their helpful suggestions on this Article.

<sup>&</sup>lt;sup>1</sup> See Buckskin Girl, DNA DOE PROJECT, https://dnadoeproject.org/case/buckskingirl/ (last visited May 27, 2022).

<sup>&</sup>lt;sup>2</sup> Id.

<sup>&</sup>lt;sup>3</sup> "Buckskin Girl" Case: DNA Breakthrough Leads to ID of 1981 Murder Victim, CBS NEWS (Apr. 12, 2018, 3:57 PM), https://www.cbsnews.com/news/buckskin-girl-case-groundbreaking-dna-tech-leads-to-id-of-1981-murder-victim/.

<sup>&</sup>lt;sup>4</sup> See Investigative Genetic Genealogy FAQs, INT'L SOC'Y OF GENETIC GENEALOGY WIKI (Mar. 25, 2022),

https://isogg.org/wiki/Investigative\_genetic\_genealogy\_FAQs#:~:text=Investigativ e%20genetic%20genealogy%20(sometimes%20also,crimes%20and%20identifying%2 0human%20remains (using "IGG" and "FGG"); see also U.S. DEP'T OF JUSTICE, Interim Policy: Forensic Genetic Genealogical DNA Analysis and Searching (2019), https://www.justice.gov/olp/page/file/1204386/download (using "FGGS"); John M. Butler, Recent Advances in Forensic Biology and Forensic DNA Typing: INTERPOL Review 2019-2022, 6 FORENSIC SCI. INT'L 100311 (2023) (using "FIGG").

<sup>&</sup>lt;sup>5</sup> See Natalie Ram, Genetic Privacy After Carpenter, 105 VA. L. REV. 1357, 1359 (2019).
<sup>6</sup> Daniel Kling et al., Investigative Genetic Genealogy: Current Methods, Knowledge and Practice, 52 FORENSIC SCI. INT'L 102474, 102475 (2021); Tracy Dowdeswell, Forensic Genetic Genealogy Project v. 2022, https://data.mendeley.com/datasets/jcycgvhm96 (last updated Feb. 22, 2023).

<sup>&</sup>lt;sup>7</sup> See, e.g., Natalie Ram et al., Genealogy Databases and the Future of Criminal Investigation, 360 SCI. 6383 (2018); U.S. DEP'T OF JUSTICE, supra note 4.

hyperbolic (that IGG will lead to a dystopian country where the government maintains massive family tree networks showing how every citizen is related) and everything in between.<sup>8</sup>

The first governmental organization to directly regulate IGG was the Department of Justice (DOJ), which adopted interim guidelines regulating the use of IGG<sup>9</sup> by its agents and contractors in September 2019.<sup>10</sup> Those regulations, in part, limit the type of case that can be investigated using IGG,<sup>11</sup> require that IGG be conducted using only genetic genealogy databases where users have provided consent for IGG searching,<sup>12</sup> and require the removal of "[IGG] profile[s]" from genetic genealogy databases once a suspect is arrested.<sup>13</sup>

Following the DOJ interim guidelines and motivated in part through concerns raised by privacy and constitutional scholars, Maryland became the first state to regulate IGG.<sup>14</sup> The bill, pre-filed in late October 2020 and enacted by the governor on May 30, 2021, provides regulations similar to those in the FBI's interim guidelines but goes much further. Among other provisions, the law (the "Maryland Law") limits the people who can work on an IGG case and subjects those IGG practitioners to onerous rules.

Among those rules is a requirement that all IGG practitioners who work on cases in Maryland "shall turn over to the investigator all records and materials collected in the course of the [IGG], including material sourced from public records, family trees constructed, and any other genetic or nongenetic data collected in the [IGG]"<sup>15</sup> and that the "genetic genealogist may not keep any records or materials in any form, including digital or hard copy records."<sup>16</sup> Moreover, the Maryland Law

<sup>9</sup> The DOJ refers to IGG as FGGS.

<sup>13</sup> Id. at 7–8.

<sup>&</sup>lt;sup>8</sup> See, e.g., Clayton Rice, Privacy and Genetic Genealogy Sites, CLAYTON RICE, K.C. (June 30, 2021), https://www.claytonrice.com/privacy-and-genetic-genealogy-sites/ (likening IGG to a "government database containing the DNA of every citizen taken at birth," and suggesting that IGG involves "mandatory genetic testing"); John W. Whitehead, *The War Over Genetic Privacy is Just Beginning*, EURASIA REV. (June 9, 2021), https://www.eurasiareview.com/09062021-the-war-over-genetic-privacy-is-just-beginning-oped/ (arguing that the government "has embarked on a diabolical campaign to create a nation of suspects predicated on a massive national DNA database.").

<sup>&</sup>lt;sup>10</sup> U.S. DEP'T OF JUSTICE, *supra* note 4.

<sup>&</sup>lt;sup>11</sup> *Id.* at 4–5.

<sup>&</sup>lt;sup>12</sup> *Id.* at 6.

<sup>&</sup>lt;sup>14</sup> H.B. 240, 2021 Reg. Sess. (Md. 2021) (codified as MD. CODE, CRIM. PROC. § 17 (2022)).

<sup>&</sup>lt;sup>15</sup> Id. at § 17-102(h)(1)(ii)(1.).

<sup>&</sup>lt;sup>16</sup> Id. at § 17-102(h)(1)(ii)(2).

provides criminal penalties for IGG practitioners who fail to abide by the regulations, holding that "[a] person who violates this subsection is guilty of a misdemeanor and on conviction is subject to imprisonment not exceeding 1 year or a fine not exceeding \$1,000 or both . . . ."<sup>17</sup> The Maryland Law also restricts IGG practitioners from disclosing any "genetic genealogy data" obtained in the course of an investigation and provides even harsher criminal penalties for violation of that requirement.<sup>18</sup>

While two additional states have sought to regulate IGG,<sup>19</sup> the Maryland Law is the most extensive and was crafted with help from organizations such as the Innocence Project and privacy and Fourth Amendment scholars.<sup>20</sup> Given its provenance, the Maryland law is well-placed to provide a template for other states to follow when enacting their own laws regulating IGG—a near-inevitability given the rapid pace of the technique's rollout since 2018 and the numerous articles and news stories raising concerns about its implications.<sup>21</sup>

This Article argues that regulations—such as those codified in the Maryland Law—that seek to limit an IGG practitioner's access, use, and dissemination of public records and information publicly shared by private individuals violates those IGG practitioner's First Amendment rights. Presenting this issue at an early stage of the regime for regulation around IGG is essential to ensure that additional states are wary to adopt similar unconstitutional provisions that are poorly targeted to the unique workspace of IGG.

<sup>&</sup>lt;sup>17</sup> Id. at § 17-102(j)(2).

<sup>&</sup>lt;sup>18</sup> Id. at § 17-102(i).

<sup>&</sup>lt;sup>19</sup> See H.B. 602, 2021 Reg. Sess. (Mont. 2021) (codified as MONT. CODE § 44-6-104 (2022)); S.B. 156, 65th Leg., Gen. Sess. (Utah 2023). As of April 2023, additional bills are under consideration by several state legislatures.

<sup>&</sup>lt;sup>20</sup> See Natalie Ram et al., *Regulating Forensic Genetic Genealogy*, 373 SCI. 1444 (2021); Sarah Chu and Susan Friedman, *Maryland Just Enacted a Historic Law Preventing the Misuse of Genetic Information*, INNOCENCE PROJECT (June 1, 2021),

https://innocenceproject.org/maryland-passes-forensic-genetic-genealogy-law-dna/. <sup>21</sup> See Ram et al., *Regulating Forensic Genetic Genealogy, supra* note 20; see, e.g., Virginia Hughes, *Two New Laws Restrict Police Use of DNA Search Method*, NY TIMES (May 31, 2021), https://www.nytimes.com/2021/05/31/science/dna-police-laws.html; Paige St. John, *The Untold Story of How the Golden State Killer was Found: A Covert Operation and Private DNA*, LA TIMES (Dec. 8, 2020, 5:00 AM),

https://www.latimes.com/california/story/2020-12-08/man-in-the-window; Debbie Kennett and G. Samuel, *Problematizing Consent: Searching Genetic Genealogy Databases for Law Enforcement Purposes*, 40 NEW GENETICS & SOC'Y 284 (2020). Thankfully, Utah's S.B. 156, signed into law in early 2023, does not include the problematic materials from Maryland's law.

This Article proceeds in four Parts. Part I provides an overview of the new investigative technique of IGG and specifically addresses the aspects of IGG work that inherently limit the kinds of government regulations that can be constitutionally applied to IGG practitioners. By analogizing to real and imagined cases involving crimes solved with clues derived from books, newspapers, and other publicly available materials, this Part explains how several of the Maryland Law's regulations on IGG practitioners would present absurd outcomes in the real world. Part II considers United States Supreme Court cases Florida Star v. B.J.F.,<sup>22</sup> L.A. Police Department v. United Reporting,<sup>23</sup> and Sorrell v. IMS Health Inc.<sup>24</sup> and argues that they ensconce a robust First Amendment protection for access to and dissemination of publicly available information—what I shall call a right to noninterference with receipt of information legally held by another and otherwise available to the public. This Part brings the essential role of public records in IGG work into relief and demonstrates that regulations such as those highlighted in the Maryland Law infringe access to and use and dissemination of publicly available information. Part III analyzes the cases of National Institute of Family and Life Advocates v. Becerra,<sup>25</sup> Snepp v. United States,<sup>26</sup> and United States v. Marchetti<sup>27</sup> and shows that labeling IGG practitioners either as professionals or governments agents does not help to save the Maryland Law. Finally, Part IV demonstrates that the Maryland Law cannot meet strict scrutiny since it is both substantially overbroad and underinclusive.

## I. INVESTIGATIVE GENETIC GENEALOGY

At least part of the issue underlying regulations such as the Maryland Law is a misunderstanding of what investigative genetic genealogy ("IGG") is—and what it is not.<sup>28</sup> The Maryland Law contains provisions that regulate the actual practice of IGG (as will be described in this Part), but it also contains provisions that regulate how biological samples from

<sup>&</sup>lt;sup>22</sup> 491 U.S. 524 (1989).

<sup>&</sup>lt;sup>23</sup> 528 U.S. 32 (1999).

<sup>&</sup>lt;sup>24</sup> 564 U.S. 552 (2011).

<sup>&</sup>lt;sup>25</sup> 138 S. Ct. 2361 (2018).

<sup>&</sup>lt;sup>26</sup> 444 U.S. 507 (1980).

<sup>&</sup>lt;sup>27</sup> 466 F.2d 1309 (4th Cir. 1972).

<sup>&</sup>lt;sup>28</sup> For an overview of some of the most common misunderstandings, see Christi J. Guerrini et al., *Four Misconceptions About Investigative Genetic Genealogy*, 8 J. L. & BIOSCIENCES 1 (2021).

crime scenes and other sources are managed, analyzed, tracked, and disposed.<sup>29</sup> These regulations fit well into existing regulatory frameworks meant to ensure that strict protocols are followed when a government agency uses a scientific laboratory to analyze and store evidence related to a criminal investigation.<sup>30</sup> The wisdom of such regulations is clear: sloppy lab work can lead to a variety of problems, including lost evidence, contamination, and, most seriously, wrongful conviction when forensic scientists misapply a scientific method to evidence.<sup>31</sup>

But as this Part will show, IGG as practiced today is not akin to forensic laboratory science work. IGG today is not best thought of as a science at all; instead, IGG is more like forensic history or genealogical private investigation. To the extent that science comes into play in IGG, it is merely as a backdrop that generates the initial clues from which historical and investigative work then proceeds. As such, the differences in kind between IGG and forensic laboratory sciences make existing regulatory frameworks focused on the latter a poor fit for the former. More, such a procrustean regulatory effort leads to the First Amendment concerns that inform the rest of this Article.

## A. IGG is GG

The GG in IGG stands for genetic genealogy. Genetic genealogy is based on the scientifically established fact that more closely related individuals will tend to share more DNA.<sup>32</sup> Children share approximately one half of their genetic code with each parent, grandchildren share approximately one quarter of

<sup>&</sup>lt;sup>29</sup> MD. CODE, CRIM. PROC. § 17-102(e), (g), (h)(1)(i). The required destruction of actual biological samples is codified in the same subsection requiring destruction of "all records and materials" collected by IGG practitioners during the investigation; an example of the conflation of the Maryland Law's conflation of the work of an IGG with the work of a laboratory forensic scientist.

<sup>&</sup>lt;sup>30</sup> See, e.g., Statewide DNA Data Base System, MD. CODE, PUB. SAFETY, §§ 2-504 – 2-506, 2-511 (2022) (regulating the collection, analysis, storage, and disposal of biological DNA samples used in criminal investigations).

<sup>&</sup>lt;sup>31</sup> See, e.g., ERIN MURPHY, INSIDE THE CELL, Chapters 2–5 (Nations Books 2015) (describing the difficulties in ensuring that forensic biological samples are not contaminated or improperly analyzed); see also Paul C. Giannelli, *Wrongful Convictions and Forensic Science: The Need to Regulate Crime Labs*, 86 N.C. L. REV. 164 (2007) (illustrating the numerous ways that sloppy forensic work can lead to wrongful convictions).

<sup>&</sup>lt;sup>32</sup> See Catherine A. Ball et al., *AncestryDNA Matching White Paper*, ANCESTRY 8 (March 31, 2016), https://www.ancestry.com/cs/dna-help/matches/whitepaper; *see also* Blaine T. Bettinger, *The Shared cM Project*, DNA PAINTER (March 2020), https://dnapainter.com/tools/sharedcmv4 (provides predicted relationships based on the amount of shared DNA between individuals, sourced from over 60,000 user submissions).

their genetic code with each grandparent, and so on.<sup>33</sup> Thus, if an individual tests her genetic code and finds that she shares half of her DNA with another individual, she knows that the individual must be either her parent, child, or full sibling.<sup>34</sup> To be sure, with a more distant relationship such as a first cousin, the amount of shared DNA between two individuals could be the same as that shared between individuals with a different relationship—say, a great-grandchild—but the amount of shared DNA between two individuals at this level still allows for the exclusion of possible relationships.35 Without this general increased sharing of DNA between more closely-related individuals, genetic genealogy would not be possible.

Genetic genealogy began as a genuinely scientific enterprise. In 1994, relying on principles of genetic inheritance established by scientists beginning as far back as Charles Darwin, scientists obtained mitochondrial DNA ("mtDNA") from skeletonized remains found in a grave found in Ekaterinburg, Russia.<sup>36</sup> The scientists hypothesized that the remains belonged to a member of the executed Romanov family.<sup>37</sup> To test the hypothesis, they compared the mtDNA take from the skeletons to mtDNA from Prince Philip, a known relative of Tsarina Alexandra Romanov, a maternal granddaughter of Queen Victoria.<sup>38</sup> The mtDNA "matched," meaning that Prince Phillip was related to the remains along his maternal line.<sup>39</sup> This research project could be seen as the first use of *investigative* genetic genealogy (applying genetic genealogy to investigate an identity related to a criminal matter or missing person case), as the goal was to identify unknown human remains.<sup>40</sup> But the

<sup>38</sup> Id.

<sup>&</sup>lt;sup>33</sup> See Autosomal DNA Statistics, ISOGG WIKI,

https://isogg.org/wiki/Autosomal\_DNA\_statistics#Table (last visited May 8, 2023) (table showing total DNA in centimorgans shared between individuals with various genealogical relationships). <sup>34</sup> See Bettinger, supra note 32.

<sup>&</sup>lt;sup>35</sup> Id

<sup>&</sup>lt;sup>36</sup> P.L. Ivanov et al., Mitochondrial DNA Sequence Heteroplasmv in the Grand Duke of Russia Georgij Romanov Establishes the Authenticity of the Remains of Tsar Nicholas II, 12 NATURE GENETICS 417 (1996).

<sup>&</sup>lt;sup>37</sup> *Id.* at 417.

<sup>&</sup>lt;sup>39</sup> mtDNA is passed from mother to child, so it can be used to trace maternal heritage. See Mitochondrial DNA Tests, ISOGG WIKI,

https://isogg.org/wiki/Mitochondrial DNA tests (last visited May 8, 2023). <sup>40</sup> IGG has been defined in several ways. Sometimes it is defined in terms of the process employed. See, e.g., Guerrini et al., supra note 28, at 2 ("Investigative genetic genealogy (IGG) is a new technique for identifying criminal suspects . . . . The process of IGG involves uploading a crime scene DNA profile to one or more

scientists in this project were acting *as scientists*: they used extraction techniques in a laboratory to obtain a viable sample from the skeleton, additional techniques to isolate the mtDNA from the sample, and so on.<sup>41</sup> These scientists were pioneering the use of genetic genealogy to identify unknown individuals, and it required them to apply the scientific method to a new area of study.

Another early use of genetic genealogy was published in *Nature* in 1997, when the research scientist Michael Hammer showed that a specific genetic marker was more often present in men who claimed membership in the Jewish priesthood (a designation passed down patrilaterally).<sup>42</sup> Here, too, Professor Hammer tested the Y chromosome ("Y-DNA") of the men in the study himself and used a variety of wet lab techniques—some developed through his own previous scientific research—to reach his conclusions.<sup>43</sup>

It was not long before entrepreneurs saw the financial upside of genetic genealogy. Working with Professor Hammer, the founders of Family Tree DNA ("FTDNA") developed the first direct-to-consumer genetic genealogy tests in 2000.<sup>44</sup> These early tests focused exclusively on Y-DNA, which is passed only from father to son and thus traces back in time along the paternal line.<sup>45</sup> Genealogy hobbyists devoured these early tests to prove or disprove previous genealogical hypotheses about their family origins and to develop new hypotheses based on the results.<sup>46</sup> But importantly, these hobbyists were not scientists; they were genealogists who were keen to use a new tool developed by others to help them bring more accuracy to their genealogical conclusions.

genetic genealogy databases with the intention of partially matching it to a criminal offender's genetic relatives and, eventually, locating the offender within their family tree."). Daniel Kling et al. defines IGG as "the use of SNP-based relative matching combined with family tree research to produce investigate leads in criminal investigations and missing persons cases." Kling et al., *supra* note 6, at 102475. I use a modified version of that definition of IGG.

<sup>&</sup>lt;sup>41</sup> See Ivanov et al., *supra* note 36.

<sup>&</sup>lt;sup>42</sup> Skorecki et al., Y Chromosomes of Jewish Priests, 385 NATURE 32 (1997).

<sup>&</sup>lt;sup>43</sup> *Id. See also* Michael F. Hammer, *A Recent Common Ancestry for Human Y Chromosomes*, 378 NATURE 376 (1995).

<sup>&</sup>lt;sup>44</sup> See Family Tree DNA, ISOGG WIKI (Feb. 20, 2022),

https://isogg.org/wiki/Family\_Tree\_DNA.

<sup>&</sup>lt;sup>45</sup> See Y Chromosome, ISOGG WIKI (Feb. 22, 2022),

https://isogg.org/wiki/Y\_chromosome.

<sup>&</sup>lt;sup>46</sup> See Anne Belli, *Moneymakers: Bennett Greenspan*, HOUS. CHRON. (Jan. 18, 2005), https://www.chron.com/business/article/Moneymakers-Bennett-Greenspan-1657195.php.

### B. Two Kinds of Genetic Genealogist

As noted, the early pioneers of genetic genealogy were true scientists. Using the scientific method within wet lab settings, they established the initial statistical metrics for identifying likely relationships between individuals based on amounts of shared DNA and applied those findings to real-world cases. In this sense, it is fair to call these scientists "genetic genealogists," though they do not refer to themselves as such.<sup>47</sup> But the term "genealogy" is used in a broad sense here, aligning with Webster's definition of "the study of family ancestral lines."48 The researchers who developed the scientific basis for genetic genealogy were surely studying, in some sense, "family ancestral lines," but they were doing so entirely within the limited framework of genetics. At no time did the researchers working on the Romanov case-or Professor Hammer working on the Y-DNA line of Aaron-sit down with traditional genealogical records to establish a paper trail showing the relationship between individuals.<sup>49</sup> I refer to these first kind of genetic genealogists as researchers.

Hobbyists and practitioners of genetic genealogy today are more akin to the grandparent sorting through family artifacts than they are to scientists testing theories in laboratories. In 2007, seven years after FTDNA offered the first Y-DNA test to the public, the rival company 23andMe produced the first autosomal DNA ("atDNA") test for public use.<sup>50</sup> Unlike Y-DNA, atDNA is inherited from both parents.<sup>51</sup> Combined with its predictable inheritance patterns, atDNA allows for inferences about relationships on both the paternal and maternal sides of an individual's family.<sup>52</sup> Genealogy hobbyists once again devoured the tests, and this, arguably, is where the second kind of genetic genealogist began to develop.<sup>53</sup> I refer to these second kind of genetic genealogists as *practitioners*.

<sup>&</sup>lt;sup>47</sup> See, e.g., Michael Hammer, U. ARIZ. COLL. OF MED.,

https://neurology.arizona.edu/michael-hammer-phd (faculty profiling listing Hammer as a "Professor and Research Scientist").

<sup>&</sup>lt;sup>48</sup> *Genealogy*, def. 3, MERRIAM-WEBSTER.COM DICTIONARY, https://www.merriam-webster.com/dictionary/genealogy (last visited May 9, 2022).

<sup>&</sup>lt;sup>49</sup> See Ivanov et al., supra note 36; Skorecki et al., supra note 42.

<sup>&</sup>lt;sup>50</sup> See Kristi Lew, Genetic Ancestry Testing 25 (2019).

<sup>&</sup>lt;sup>51</sup> See Autosomal DNA, ISOGG WIKI (Oct. 21, 2020),

https://isogg.org/wiki/Autosomal\_DNA.

<sup>&</sup>lt;sup>52</sup> *Id.* 

<sup>&</sup>lt;sup>53</sup> See Erika Check Hayden, *The Rise and Fall and Rise Again of 23andMe*, 550 NATURE 174, 176 (2017).

The differences between researcher and practitioner genetic genealogists are stark. The former are scientists who use the scientific method to arrive at conclusions about inheritance patterns of DNA and sometimes apply those conclusions to real-world problems. The latter use the conclusions developed by research genetic genealogists, but they do not generally engage in scientific work themselves.<sup>54</sup> Most significantly, practitioners use predictions of relationships based on genetics only as a starting point. The majority of work by practitioners occurs outside of the genetic framework, relying instead on traditional proof of genealogical relationships along with evidence from contemporary public records and other publicly available contemporary records.<sup>55</sup> As will be shown, investigative genetic genealogists (hereafter referred to as "IGG practitioners") are practitioners, not researchers.

### C. What IGG practitioners Do and Do Not Do

IGG practitioners do not collect biological samples from crime scene evidence.<sup>56</sup> IGG practitioners do not test biological samples to develop genetic profiles.<sup>57</sup> IGG practitioners do not surreptitiously collect biological samples from suspects or persons of interest.<sup>58</sup> IGG practitioners do not conduct experiments.<sup>59</sup> IGG practitioners do not independently establish new conclusions about genetic genealogy using the scientific

<sup>&</sup>lt;sup>54</sup> However, some genetic genealogists are both RGGs *and* PGGS. For example, Blaine T. Bettinger, a genetic genealogist, created the Shared cM Project, which brings together "crowd-sourced" findings of genealogical and genetic relatedness into a tool that allows genetic genealogists to use real-world data to estimate relationships based on shared DNA. *See* Bettinger, *supra* note 32. Leah Larkin, another genetic genealogist, developed the What Are the Odds? (WATO) tool, which aggregates the statistical probabilities of various relationships based on shared DNA and known genealogical relationships to provide weighed predictions of where an unknown ancestor fits into a family tree, along with other researchers. *See* Leah Larkin, *What Are the Odds?*, DNA PAINTER, https://dnapainter.com/tools/probability (last visited May 8, 2023). The important point here is that even when genetic genealogists do engage in research, they are not acting as PGGs when doing so—they are acting as RGGs. The two kinds of genetic genealogy are distinct practices.

<sup>&</sup>lt;sup>55</sup> See Kling et al., supra note 6, at 6–8. As the authors note, "Genealogical research is a key component of IGG and generally the most time-consuming part of the process .... IGG is only possible because of the large quantities of genealogical records from around the world." *Id.* at 7. For records on living people, IGG practitioners rely on social media, online obituaries, and people find sites. *Id.* 

<sup>&</sup>lt;sup>56</sup> *See* Guerrini et al., *supra* note 28, at 5 (describing how the work of IGG practitioners is "book-ended by standard police work.").

<sup>&</sup>lt;sup>57</sup> *Id.* at 5–6 (describing the forensic laboratory work that takes places *before* IGG practitioners begin working on a case).

<sup>&</sup>lt;sup>58</sup> *Id.* at 7.

<sup>&</sup>lt;sup>59</sup> See supra Part I.B.

method.<sup>60</sup> IGG practitioners do not work in wet labs or anywhere generally considered a science lab.<sup>61</sup> The "genetic" work of IGG practitioners never involves direct access to or use of the actual biological material of an individual.<sup>62</sup>

Instead, IGG practitioners use genetic genealogy and traditional genealogy to establish relationships between individuals, leading to a hypothesis about a specific identity with legal ramifications.<sup>63</sup> IGG practitioners work from a computer and do not require a laboratory environment.<sup>64</sup> An IGG practitioner's work begins *after* a forensic lab has analyzed a biological sample, generated a genetic profile, and uploaded the profile to publicly accessible genetic genealogy databases ("public genetic databases").<sup>65</sup>

An IGG practitioner begins by viewing a list of individuals who "match" to the Subject in the public genetic databases.<sup>66</sup> These individuals are related to the Subject to varying degrees.<sup>67</sup> In many cases, the match list will contain at least one individual who is a fourth-degree relative (e.g., a third cousin) or closer.<sup>68</sup> The list will also contain a large number of

<sup>&</sup>lt;sup>60</sup> Id.

<sup>&</sup>lt;sup>61</sup> See Antonio Regalado and Brian Alexander, *The Citizen Scientist Who Finds Killers From Her Couch*, MIT TECH. REV. (June 22, 2018),

https://www.technologyreview.com/2018/06/22/142148/the-citizen-scientist-who-finds-killers-from-her-couch/.

<sup>&</sup>lt;sup>62</sup> See Guerrini et al., *supra* note 28, at 8–10 (describing how IGG practitioners do not have direct access to anyone's genetic code, and how that information would not be directly useful for IGG in any case). It *is* possible for IGG practitioners to infer portions of a Subject's genetic code using a Chromosome browser, but this would be a difficult and time-consuming process that would render no benefits for conducting IGG. *See id.* at 9.

 <sup>&</sup>lt;sup>63</sup> This definition, my own, covers all current uses of IGG, including criminal investigations, missing and unidentified human remains, and military repatriation.
 <sup>64</sup> See Regalado and Alexander, *supra* note 61. Even here, the descriptor of "citizen scientist" is misplaced. "Citizen historian" would better capture the bulk of what IGG practitioners do.

<sup>&</sup>lt;sup>65</sup> See Guerrini et al., supra note 28, at 5–6.

<sup>&</sup>lt;sup>66</sup> See Ellen M. Greytak et al., Genetic Genealogy for Cold Case and Active Investigations, 299 FORENSIC SCI. INT'L 103, 107 (2019).

<sup>&</sup>lt;sup>67</sup> See id.

<sup>&</sup>lt;sup>68</sup> See Yaniv Erlich et al., *Identity Inference of Genomic Data Using Long-Range Familial* Searches, 362 SCIENCE 690 (2018). Erlich et al. created a model demonstrating that when 2% of a target population is represented in a genetic database, nearly everyone in the target population will have a third-cousin or closer match in the genetic database. *Id.* FamilyTreeDNA alone has over two million genetic genealogy profiles. *See* Precious Silva, *DNA Testing Company FamilyTreeDNA Gives FBI Access to Nearly Two Million Profiles*, INT'L BUS. TIMES (Feb. 4, 2019), https://www.ibtimes.com/dnatesting-company-familytreedna-gives-fbi-access-nearly-two-million-profiles-2759401; Martin McDowell, *How Big is the FamilyTreeDNA Database?*, GENETIC GENEALOGY IR. (Feb. 11, 2020), https://ggi2013.blogspot.com/2020/02/how-big-is-

individuals who are more distantly related to the Subject.<sup>69</sup> The IGG practitioner can see how much DNA individuals in the match list share with the Subject, but they cannot see any match's raw genetic code.<sup>70</sup> This simplified match list is a good approximation of what match lists look like in a public genetic database:

Match Name	Match Email	DNA shared
		with Subject
John Doe	johndoe@gmail.com	100 cM
Jane Roe	janeroe@gmail.com	90 cM
Ice9	Ice9@yahoo.com	88 cM
CameoSpace	cspace@bing.com	88 cM

From the amount of shared DNA listed here, the IGG practitioner might use a relationship calculator, such as the Shared cM Project, to identify a range of possible relationships that each individual in the match list might share with the Subject.<sup>71</sup> With lower amounts of shared DNA, these ranges are not very specific.<sup>72</sup> For example, John Doe might be the Subject's half second cousin, third cousin, half first cousin once removed, or even a fourth cousin. Thus, unless the amount of shared DNA is so great as to make the relationship unambiguous, the IGG practitioner will have to rely on additional information to begin identifying the Subject.<sup>73</sup>

familytreedna-database.html (the size of the database grows continuously, so the number today is greater than in 2020).

<sup>&</sup>lt;sup>69</sup> There can be hundreds or thousands of matches that are distantly related to the Subject. *See* Greytak et al., *supra* note 66, at 109.

<sup>&</sup>lt;sup>70</sup> *Id.* at 107.

<sup>&</sup>lt;sup>71</sup> The most commonly used calculator is the crowd-sourced project managed by Blaine T. Bettinger. *See* Bettinger, *supra* note 32.

<sup>&</sup>lt;sup>72</sup> See id. Entering "50 cm" (a relatively low amount of shared DNA) into the search bar yields thirty-two possible relationships with varying likelihood probabilities, from the second-cousin range to the fifth, sixth, seventh, or even eighth cousin range. *See also* Greytak et al., *supra* note 66, at 107.

<sup>&</sup>lt;sup>73</sup> Even the largest possible amount of shared DNA between individuals (excluding identical twins), approximately 3720 cM, will result in two possibilities for the

The next step the IGG practitioner might take would be to use tools available on each public genetic database to determine which matches also share DNA with one another.<sup>74</sup> This allows the IGG practitioner to break the match list into various clusters that represent different branches of the Subject's family tree.<sup>75</sup> As a simplified example, if John Doe and Ice9 share DNA with one another in addition to the Subject, but they do not share DNA with Jane Roe or CameoSpace, the former pair are likely related to the Subject on a different branch of his family tree than the latter pair.<sup>76</sup>

From there, the IGG practitioner would attempt to find out how individuals in each cluster relate to one another. This can be accomplished by several methods. One method is to view how much DNA is shared between individuals in a cluster.<sup>77</sup> However, this method is currently only available on one public genetic database, and even there, unless the amounts of shared DNA are quite large, the relationship between individuals in a cluster will remain ambiguous. Instead, the most useful method is for IGG practitioners to search for family trees associated with individuals in a cluster.<sup>78</sup> If John Doe has a publicly viewable family tree on Ancestry.com (or elsewhere on the web), it might show how he is related to Ice9.<sup>79</sup>

Subject: the Subject could be the parent, or the child, or the match. *See* Bettinger, *supra* note 32 (enter 3720 in the search bar). I am not aware of any cases where the top match has shared such a high amount of DNA with the Subject.

<sup>&</sup>lt;sup>74</sup> GEDmatch offers a variety of tools for identifying genetic relationships between matches of the Subject's matches, including a tool that allows IGG practitioners (and the general public when using GEDmatch) to identify which of the Subject's matches also share DNA with one another. *See* "People who match both kits, or 1 of 2 kits" tool, *GEDMATCH*, https://app.gedmatch.com/people\_match1.php (create free account; then scroll to menu on right side of the screen to select tool) (last visited Oct. 11, 2022); *see also* Kling et al., *supra* note 6, at 14.

<sup>&</sup>lt;sup>75</sup> "Clustering" is a key tool for IGG and traditional genetic genealogy alike. Clustering can be performed by hand or using a number of automated tools such as the Collins Leeds Method at DNAGEDcom. *See, e.g.*, "Collin Leeds Method (CLM)," *DNAGEDcom*, https://doc.dnagedcom.com/help/collins-leeds-methodclm/ (last visited Oct. 11, 2022).

<sup>&</sup>lt;sup>76</sup> See Kling et al., *supra* note 6, at 8 (providing a description of clusters).

<sup>&</sup>lt;sup>77</sup> This can only be accomplished on GEDmatch, which allows users to view the amount of shared DNA between matches. But as noted *supra* note 72, unless the amount of shared DNA is exceptionally high, there will be many possible relationships.

<sup>&</sup>lt;sup>78</sup> See Kling et al., supra note 6, at 11. There are other methods used by IGG practitioners, but the details are beyond the scope of this Article.

<sup>&</sup>lt;sup>79</sup> *Id.* Note that here, the IGG practitioner would be searching for the publicly available tree on Ancestry.com (or elsewhere). The IGG practitioner would not be uploading any DNA files to AncestryDNA or otherwise searching for relatives of the Subject using genetic matching.

Another method involves searching for the name of individuals in a cluster on social media sites (e.g., Facebook), public records repositories (e.g., WhitePages), and search engines (e.g., Google).<sup>80</sup> This method will often identify the parents, grandparents, children, and siblings of individuals in a cluster.<sup>81</sup> This method is also used to disambiguate pseudonyms in public genetic databases.<sup>82</sup> For example, the IGG practitioner might find a website where Ice9 used his real name, James Blank. This begins the process of building out the family tree for each cluster and identifying how the individuals in a cluster relate to one another. Once the IGG practitioner has identified close relatives of the individuals, the IGG practitioner could move on to using traditional genealogical records to fill out the family trees.<sup>83</sup> These records include documents that governments have made public: census records; birth, marriage, and death records; newspapers; family papers donated to repositories; and other historical records available to the public.<sup>84</sup> The materials that IGG practitioners access in these stages of their work consist entirely of historical and contemporary public records and other publicly accessible information. I refer to all of these materials as "publicly accessible information." As will be discussed in the remaining Parts of this Article, access to publicly accessible information involves materials and information that is of foundational First Amendment concern.85

Often, the next step the IGG practitioner will take is to make use of a time-saving tool called What Are The Odds

<sup>&</sup>lt;sup>80</sup> See Kling et al., supra note 6, at 7; Greytak et al., supra note 66, at 108.

<sup>&</sup>lt;sup>81</sup> IGG practitioners are only able to access Facebook (and other social media) pages that have been made public by the user. *See* Kling et al., *supra* note 6, at 7.

 <sup>&</sup>lt;sup>82</sup> See Debbie Kennett, Using Genetic Genealogy Databases in Missing Persons Cases and to Develop Suspect Leads in Violent Crimes, 301 FORENSIC SCI. INT'L 107, 113 (2019).
 <sup>83</sup> Greytak et al., supra note 66, at 108.

<sup>&</sup>lt;sup>84</sup> Federal census records are available to the public seventy-two years after they are collected. Act to Amend Chapter 21 of Title 44, Pub. L. No. 95-416, 92 Stat. 915 (1978). Ancestry.com estimates that they have approximately four billion records, including census records, vital records, newspapers, and others, in their online repository. *How Many Billions of Records Are on Ancestry.com*?, ANCESTRY, https://www.ancestry.com/corporate/blog/how-many-billions-of-records-are-on-ancestrycom (last visited Oct. 11, 2022). Ancestry.com obtains many of these records by approaching state archives and other holders of public records and offering to digitize them for free. Christine Garrett, Genealogical Research, Ancestry.com, and Archives 28 (May 14, 2010) (Masters thesis, Auburn University) (available at http://etd.auburn.edu/bitstream/handle/10415/2014/Christine.Garrett\_thesis.pdf? sequence=1&ts=1425917830362).

<sup>&</sup>lt;sup>85</sup> See infra Parts II, III.

("WATO").<sup>86</sup> WATO, developed by Leah Larkin and Jonny Perl, uses a statistical analysis that combines the probabilities of relatedness based on genetic genealogy and evidence from publicly accessible information to generate hypotheses as to where the Subject fits into a family tree.<sup>87</sup> The IGG practitioner transfers information from the family tree she developed using publicly accessible information into WATO and then enters the amount of shared DNA for the individuals in the tree who matched to the Subject in the public genetic database.<sup>88</sup> WATO then presents a ranked list of hypotheses for where the Subject might fit into the family tree.<sup>89</sup>

At this point, the IGG practitioner is well on her way to identifying the Subject. Using the hypotheses generated by WATO, as well as context clues about the Subject's likely age, gender, and locale, the IGG practitioner would return to publicly accessible information to build out the family tree to the places where the Subject most likely fits in.<sup>90</sup> The IGG practitioner would also look for intersections on the family tree where an individual related to a different cluster developed from the public genetic database either married into or had a child with an individual in the cluster under consideration.<sup>91</sup> If the IGG practitioner finds such an intersection and identifies an individual who both fits into a hypothesis generated by WATO and matches the context clues for the Subject, the IGG practitioner has a lead that can then be forwarded to the agency that contracted with the IGG practitioner.<sup>92</sup>

At this stage, the IGG practitioner's work is over.<sup>93</sup> If the case involves an unsolved crime, law enforcement will collect a DNA sample from the person of interest identified by the IGG

<sup>87</sup> See Frequently Asked Questions About WATO, DNA PAINTER,

<sup>89</sup> Id.

<sup>&</sup>lt;sup>86</sup> Larkin, *supra* note 54. For an example of the use of WATO in IGG, *see* Amy R. Michael et al., *Identification of a Decedent in a 103-Year-Old Homicide Case Using Forensic Anthropology and Genetic Genealogy*, 7 FORENSIC SCI. RSCH. 412, 421 (2022), https://www.tandfonline.com/doi/pdf/10.1080/20961790.2022.2034717.

https://dnapainter.com/help/wato-faq (last visited Oct. 9, 2022). Larkin developed WATO using the probabilities described in an AncestryDNA white paper. *See generally* Ball et al., *supra* note 32.

<sup>&</sup>lt;sup>88</sup> Frequently Asked Questions About WATO, supra note 87.

<sup>&</sup>lt;sup>90</sup> Greytak et al., *supra* note 66, at 109.

<sup>&</sup>lt;sup>91</sup> Id.

<sup>&</sup>lt;sup>92</sup> See id. at 110.

<sup>&</sup>lt;sup>93</sup> In many cases, more work by the IGG practitioner will be required. If the IGG practitioner is unable to identify the Subject using the available matches, she may request that law enforcement to perform targeted outreach to other relatives of the Subject identified through PAGGDs. *See id.* at 108.

practitioner.<sup>94</sup> Law enforcement will forward the sample to a lab that will make a direct comparison between that sample and the sample from the crime scene.<sup>95</sup> Only then will an arrest be made.<sup>96</sup>

### D. Regulation of Forensic Labs and Scientists

As noted in the Introduction, states and the federal government regulate forensic laboratories in a variety of ways. These regulations are guided by reasonable concerns about mistakes that can occur in lab settings and the terrible effect those mistakes can bring about.<sup>97</sup> If a forensic scientist working in a lab contaminates a sample from a crime scene with DNA from a suspect, an innocent person may be convicted of the crime—and a guilty person may go free.

Privacy concerns also predominate in government regulation of forensic labs. These labs deal with biological samples that can contain the entire genetic code of an individual. If a lab misplaced biological samples and they fell into the wrong hands, an individual's health risks could be exposed.<sup>98</sup>

Even forensic scientists are subjects of concern given that they apply the scientific method to evidence and testify in court in front of juries who will use that testimony to determine the guilt or innocence of a defendant. If a forensic scientist misapplies the scientific method in his analysis and testimony, an innocent person could be convicted of a crime while the guilty party walks.<sup>99</sup>

<sup>&</sup>lt;sup>94</sup> *Id.* at 110.

<sup>&</sup>lt;sup>95</sup> Id.

<sup>&</sup>lt;sup>96</sup> Id.

<sup>&</sup>lt;sup>97</sup> See NAT'L RSCH. COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 37 (2009) ("[I]f evidence and laboratory tests are mishandled or improperly analyzed; if the scientific evidence carries a false sense of significance; or if there is bias, incompetence, or a lack of adequate internal controls for the evidence introduced by the forensic scientists and their laboratories, the jury or court can be misled, and this could lead to wrongful conviction or exoneration."). <sup>98</sup> Of course, the "wrong hands" could similarly obtain anyone's DNA by simply picking up a discarded Coke can, or even a pencil. See Khalid Mahmud Lodhi et al., Generating Human DNA Profile(s) from Cell Phones for Forensic Investigation, 6 J. FORENSIC RSCH. 1, 1 (2015) (describing how "touch DNA" can be obtained from a variety of objects and used to develop a DNA profile of the individual). <sup>99</sup> See, e.g., FBI Admits Flawed Forensic Testimony Affected at Least 32 Death Penalty Cases, EQUAL JUST. INITIATIVE (Apr. 29, 2015), https://eji.org/news/fbi-admits-flawedforensic-testimony-in-32-death-penalty-cases/ (noting that the "FBI [] acknowledged ... that, for decades, nearly every examiner in its microscopic hair comparison unit gave flawed testimony declaring that crime scene hair evidence 'matched' the hair of defendants . . . including in 32 capital trials that ended in a death sentence");

In light of these reasonable concerns, states and the federal government regulate forensic labs in precise ways. In several states, forensic scientists must dispose of biological samples from suspects who turn out to have no involvement in the crime.<sup>100</sup> This requirement reduces the source of contamination for future cases and reduces the chance the individuals' DNA might be obtained for nefarious purposes.<sup>101</sup> An individual's genetic code is generally not publicly available information, and we expect that when the government uses private information in its investigations, it does so in a way that safeguards that privacy to the greatest extent possible.<sup>102</sup>

#### E. Maryland's Law Regulating IGG

The Maryland Law attempts to regulate IGG using the framework applied to forensic laboratories. Large portions of the law do, in fact, regulate the treatment of biological samples. One section seeks to ensure that labs do not use biological samples to determine information about an individual that would violate the Health Insurance Portability and Accountability Act: "Biological samples subjected to [] DNA analysis, whether the forensic sample or third party reference samples, may not be used to determine the sample donor's genetic predisposition for disease or any other medical condition or psychological trait."<sup>103</sup> Another section requires all labs that use biological samples to generate DNA profiles be licensed by the Office of Health Care

MURPHY, *supra* note 31, at 52–53 (describing cases where forensic scientists made a variety of errors in their analysis crime-scene and suspect DNA, leading to numerous wrongful convictions).

<sup>&</sup>lt;sup>100</sup> See, e.g., MD. CODE REGS. 29.05.01.14. Not all states follow suit, e.g., New York City stores DNA profiles from tens of thousands of individuals—many of them never convicted of a crime—and compares them to crime-scene evidence. Troy Closson, *This Database Stores the DNA of 31,000 New Yorkers. Is it Legal?*, N.Y. TIMES (Mar. 22, 2022), https://www.nytimes.com/2022/03/22/nyregion/nyc-dna-databasenypd.html.

<sup>&</sup>lt;sup>101</sup> See MURPHY, supra note 31, at 52 (describing how contamination from multiple evidence kits led to cases being compromised).

<sup>&</sup>lt;sup>102</sup> This is not the same as saying that genetic data is "data in which individual can begin to claim a reasonable expectation of privacy" for Fourth Amendment purposes, as Natalie Ram has argued. Ram, *Genetic Privacy After* Carpenter, *supra* note 5, at 1386. It is simply to say that we expect law enforcement to use measures to safeguard information used in investigations that is not *generally* publicly available, such as the bank records at issue in *United States v. Miller*, 425 U.S. 435 (1976), and the phone records at issue in *Smith v. Maryland*, 442 U.S. 735 (1979). While bank and phone records are not "private" for Fourth Amendment purposes, it is reasonable to expect that law enforcement would take greater care with such records—not leaving them in a coffee shop, for example—than they would with generally publicly available materials such as newspapers and census records.

<sup>&</sup>lt;sup>103</sup> MD. CODE ANN., CRIM. PROC. § 17-102(c) (LexisNexis 2022).

Quality.<sup>104</sup> Yet another section requires that the court with jurisdiction over the case "shall issue orders to all persons in possession of DNA samples gathered in the [investigation] . . . to destroy the samples" when a case is complete.<sup>105</sup> A proceeding section provides criminal penalties for failure to destroy the samples as required.<sup>106</sup>

The problem arises when the Maryland Law applies the same regulatory framework to the wholly different investigative area of IGG. The law defines "forensic genetic genealogy DNA analysis and search" (Maryland's term for IGG) broadly to include not only "the forensic genetic genealogical DNA analysis of biological material," but also "a genealogical search using public records and other lawful means to obtain information . . . . "<sup>107</sup> The same section of the law that requires destruction of biological samples also requires that "all genetic genealogy information derived from the [IGG] analysis" be destroyed, and that the IGG practitioner "turn over to the investigator all records and materials collected in the course of the [investigation], including material sourced from public records, family trees constructed, and any other genetic or nongenetic data collected . . . . "<sup>108</sup> The IGG practitioner "may not keep any records or materials in any form, including digital or hard copy records."<sup>109</sup> An IGG practitioner who retains any records is subject to criminal prosecution: "A person who violates this subsection is guilty of a misdemeanor and on conviction is subject to imprisonment not exceeding 1 year or a fine not exceeding \$1,000 or both."<sup>110</sup> And an IGG practitioner who "disclose[s]" any records is subject to even higher criminal sanctions—five years in prison, a \$5,000 fine, or both.<sup>111</sup> There is also a private right of action built into the law, allowing anyone whose information is wrongfully "disclosed, collected, or maintained" to bring a tort claim against the IGG practitioner.<sup>112</sup>

<sup>&</sup>lt;sup>104</sup> Id. § 17-104.

<sup>&</sup>lt;sup>105</sup> *Id.* § 17-102(h)(1)(i). A case is completed either when there is no prosecution, or upon acquittal, or on "completion of a sentence and postconviction litigation associated with a conviction obtained through the use of FGGS, or on completion of any criminal prosecution that may arise from the FGGS." *Id.* Given that post-conviction litigation can continue indefinitely, for all intents and purposes, in some cases the order will likely never be issued.

<sup>&</sup>lt;sup>106</sup> Id. § 17-102(j)(2).

<sup>&</sup>lt;sup>107</sup> *Id.* §§ 17-101(e)(1), 17-101(e)(3).

<sup>&</sup>lt;sup>108</sup> Id. §§ 17-102(h)(1)(i), 17-102(h)(1)(ii)(1.).

<sup>&</sup>lt;sup>109</sup> Id. § 17-102(h)(1)(ii)(2.).

<sup>&</sup>lt;sup>110</sup> Id. § 17-102(j)(2).

<sup>&</sup>lt;sup>111</sup> Id. § 17-102(i).

<sup>&</sup>lt;sup>112</sup> Id. § 17-102(k).

These kinds of regulations would make sense if applied to biological samples, lab notes, and other materials developed within forensic laboratory conditions. We certainly do not want forensic scientists to maintain biological materials after a case has ended, especially if the biological materials come from someone who has been deemed innocent. And we might want to ensure that any notes derived from analysis of those biological materials are destroyed as well since the notes can contain detailed information about an individual's genetic code that came from direct scientific analysis of the individual's DNA. But there is no analogy between biological materials or notes containing information derived from analysis of those materials and the materials accessed by IGG practitioners in their work on a case. As described above, the majority of an IGG practitioner's work does not depend on access to any private information.<sup>113</sup> The only arguably private information viewed by an IGG is the Subject's match list in a public genetic database.<sup>114</sup> The rest of the IGG practitioner's work consists of digging through a variety of publicly accessible information, such as census records, vital records, public social media posts, and contemporary public records. These are the "materials" that an IGG uses in her work. Requiring that an IGG not keep any of these records or materials "in any form" is akin to a regulation saying that forensic scientists must turn over their beakers and pipettes once a case is complete. Such a law would surely be absurd, but there are graver concerns than absurdity here. Taken at face value, the Maryland Law would mean that IGG practitioners could not maintain any of the census records, birth, marriage, or death records, or any other public records used in the IGG practitioner's work on a case. But a census record contains information about a variety of individuals, as do many indexes that list births, marriages, and deaths. These records contain information of First Amendment concern. Requiring IGG practitioners to remove such records "in any form" after completion of a case violates the IGG practitioner's First

<sup>&</sup>lt;sup>113</sup> See supra Part I.C.

<sup>&</sup>lt;sup>114</sup> See supra Part I.C. But, of course, there is no privacy right in evidence left behind at a crime scene. The Subject's match list in a public genetic database is derived entirely from evidence left behind at a crime scene. Consider an analogous situation where law enforcement finds a cell phone likely belonging to the killer at a crime scene. Law enforcement could, of course, search the phone and develop a family and friend network for the suspect from the contents of his phone without obtaining a warrant. The killer has no privacy interest in the phone—or information derived from the phone—once it is left at a crime scene. Ditto for DNA.

Amendment right to noninterference with receipt of information legally held by another and otherwise available to the public.

# II. THE FIRST AMENDMENT RIGHT OF NONINTERFERENCE with Receipt of Information Legally Held by Another and Otherwise Available to the Public

The First Amendment protects the right of individuals to publish—or otherwise make available to the public—a wide range of materials.<sup>115</sup> In accord with that right, the First Amendment also protects a right to noninterference with receipt of information legally held by another and otherwise available to the public (the "right of noninterference with receipt" for short). The materials accessed by IGG practitioners in their work census and vital records, social media posts, newspapers articles—fit into this category.

The right of noninterference with receipt is inherently tied up with the question of the right to publish, since being able to receive information requires that the information has been published or made available in some other way. The United States Supreme Court has addressed these overlapping rights in a series of cases, most notably *Florida Star v. B.J.F.*,<sup>116</sup> *L.A. Police Department v. United Reporting*,<sup>117</sup> and *Sorrell v. IMS Health Inc*.<sup>118</sup> The reasoning in those cases clearly establishes a right of "noninterference with receipt." If such a right exists, the Maryland Law's restriction on IGG practitioners' access to public census and vital records, public social media posts, and newspaper articles conflicts with it.

A. Florida Star v. B.J.F.

The Court has recognized a general<sup>119</sup> First Amendment right to access publicly available materials and disseminate information based on those materials. While the Court has never

<sup>&</sup>lt;sup>115</sup> See, e.g., Miller v. California, 413 U.S. 15 (1973) (upholding the right to publish pornography that is not "obscene" and does not depict children); New York Times Co. v. Sullivan, 376 U.S. 254 (1964) (restricting defamation suits brought by "public figures"); New York Times Co. v. United States, 403 U.S. 713 (1971) (restricting prior restraint of publication of classified materials); Brandenburg v. Ohio, 395 U.S. 444 (1969) (upholding the right to engage in a wide range of "violent" speech as long as it will not likely results in "imminent lawless action"); Texas v. Johnson, 491 U.S. 397 (1989) (establishing the right to burn the U.S. flag as a form of political protest); Snyder v. Phelps, 562 U.S. 443 (2011) (creating the right to demonstrate in an "offensive" or "outrageous" manner on a matter of public concern).

<sup>&</sup>lt;sup>116</sup> 491 U.S. 524 (1989).

<sup>&</sup>lt;sup>117</sup> 528 U.S. 32 (1999). <sup>118</sup> 564 U.S. 552 (2011).

<sup>&</sup>lt;sup>110</sup> 564 U.S. 552 (2011).

<sup>&</sup>lt;sup>119</sup> Though perhaps not unlimited.

held that the press has an unfettered First Amendment right to publish any truthful information whatsoever, it has struck down every statute that punished publication of legally obtained, truthful, non-defamatory material. In Florida Star, the Court considered a circumstance where a sheriff's department had used the real name of a victim of robbery and sexual assault on a report that it made available to the press.<sup>120</sup> The Florida Star newspaper published the victim's name despite a Florida law that made it illegal to publish the name of a victim of a sexual offense.<sup>121</sup> Thus, the issue for the Court was whether the Florida law could, consistent with the First Amendment, punish someone for reporting the name of a victim obtained from a publicly released police report.<sup>122</sup> The Court's holding by Justice Marshall was limited. It did not recognize automatic constitutional protection for publication of truthful information nor did it hold that there is no zone of privacy that a State might protect even if it conflicts with principles of free speech.<sup>123</sup> But the Court did hold that "where a newspaper publishes truthful information which it has lawfully obtained," a law penalizing such publication must meet strict scrutiny, a nearly insurmountable burden.<sup>124</sup>

The right to receipt of (or access to) publicly available information was mentioned briefly by the Court in *Florida Star*. Justice Marshall noted that Florida was, in a sense, punishing the receipt of information—even though the law did not specifically say so—since the punishment was applied not to the government agency that released the information, but to the organization that received and published it.<sup>125</sup> Notably, this insight harkened back to Justice Brennan's concurring opinion

<sup>&</sup>lt;sup>120</sup> 491 U.S. at 527.

<sup>&</sup>lt;sup>121</sup> *Id.* at 526.

<sup>&</sup>lt;sup>122</sup> *Id.* at 534.

<sup>&</sup>lt;sup>123</sup> Id. at 541.

<sup>&</sup>lt;sup>124</sup> Id.

<sup>&</sup>lt;sup>125</sup> See id. at 536; see also id. at 547 (White, J., dissenting) (noting that Florida already had a variety of laws on the books that forbid officials from releasing the names of rape victims); *Id.* at 536 (majority opinion) (noting that "the fact that the Department apparently failed to fulfill its obligation . . . not to cause or allow to be . . . published the name of a sexual offense victim make the newspaper's ensuing receipt of this information unlawful.") (internal quotations omitted). *Arguendo*, Justice Marshall stated that "[e]ven assuming the Constitution permitted a State to proscribe *receipt* of information, Florida has not taken this step." *Id.* (emphasis in original). But Justice Marshall later stated that "[o]nce the government has placed [] information in the public domain, reliance must rest upon the judgement of those who decide what to publish or broadcast . . . ." *Id.* at 538 (internal quotations and citation omitted).

in *Lamont v. Postmaster General.*<sup>126</sup> In that case, addressees of material deemed "communist political propaganda" sued over a law that required the United States Post Office to hold such material and instead send addressees a postcard asking if they truly wanted to receive the material.<sup>127</sup> Only if the addressee responded with an affirmative yes would the mail be sent on.<sup>128</sup> The Court premised its decision on the right of the *recipients* of the materials, not the senders.<sup>129</sup> Justice Brennan made this explicit in his concurrence in *Lamont* when he wrote that "the right to receive publications is [] a fundamental right" that is "necessary to make the express guarantees [of the First Amendment] fully meaningful."<sup>130</sup>

*B.* L.A. Police Department v. United Reporting *and* Sorrell v. IMS Health Inc.

While Justice Marshall in Florida Star briefly raised the hypothetical of a law that proscribes receipt of publicly available information,<sup>131</sup> no such case has arisen, but it is possible to imagine such a case. In Florida Star, the sheriff's department had violated its own internal policies, as well as Florida law, by releasing the name of the victim to the public.<sup>132</sup> But imagine a law that penalizes receipt of information provided by the government to the public if the recipient knows that the information in question should not have been released by the government.<sup>133</sup> The Court would surely strike down such a law under the Florida Star principle. If a newspaper may not be punished for publishing information that it legally obtained from the government, surely an individual could not be punished for receiving information legally from the government. To be sure, the Court has never directly ruled on a case with these facts, but it has ensconced the principal of a First Amendment right to receive publicly accessible information in a circuitous way in two

130 381 U.S. at 308.

<sup>132</sup> *Id.* at 538.

<sup>&</sup>lt;sup>126</sup> 381 U.S. 301 (1965).

<sup>&</sup>lt;sup>127</sup> Id. at 302.

<sup>&</sup>lt;sup>128</sup> *Id.* at 303.

<sup>&</sup>lt;sup>129</sup> *Id.* at 307. While the case itself was about the constitutionality of a federal statute, whether that statute was constitutional required the Court to consider whether the addressees of "communist political propaganda" had the right to receive such information.

<sup>&</sup>lt;sup>131</sup> Fla. Star v. B.J.F., 491 U.S. 524, 536 (1989).

<sup>&</sup>lt;sup>133</sup> In *Florida Star*, Justice Marshall remarked that such a law "would force upon the media the onerous obligation of sifting through government press releases, reports, and pronouncements to prune out material arguably unlawful for publication." *Id.* 

cases: *L.A. Police Department v. United Reporting* and *Sorrell v. IMS Health Inc.* Before considering those cases, however, it is necessary to reframe the concept of a "right to receipt."

The concept of a "right to receipt" seems strange, since the word "receipt" implies an action by another. When you receive something, it is only because somebody (or some mechanism put in place by somebody) has provided it to you. Thus, taken literally, a "right to receipt" would require a concomitant right to make someone else act. But surely this is not what Justice Marshall had in mind in Florida Star, and not even what Justice Brennan had in mind in Lamont. If the producers of the materials at issue in *Lamont* had simply written up pamphlets but shown no interest in distributing them, no one would have a right to demand that the producers, or anyone else, provide them with the materials. To say otherwise would be akin to saying that once any (legal) information is produced, everyone has an affirmative right to have it provided to them-an absurdity. Instead, what Justice Brennan recognized in Lamont is that once constitutionally protected information is produced and made available to the public, the government may not *block* someone from receiving it.<sup>134</sup> Thus, the principle is better framed as the right of *noninterference* with receipt.

Consider *United Reporting*, where the Court addressed a Los Angeles Police Department ("LAPD") regulation that released arrestees' addresses if the recipient agreed to use the information for a short list of prescribed purposes, none of which included using the information to sell a product or service.<sup>135</sup> Writing for the majority, Chief Justice Rehnquist upheld the regulation, reasoning that it did not "prohibit[] a speaker from conveying information that the speaker already possesses" but was simply a "governmental denial of access to information in its possession."<sup>136</sup> The reasoning here assumes—without explicitly stating—that a law that attempted to regulate what a speaker did with legally obtained government information already in his possession would be treated differently by the Court.

Now imagine a twist on the law at issue in *United Reporting*, where in addition to restricting *new* access to arrestee

<sup>&</sup>lt;sup>134</sup> See 381 U.S. at 308.

<sup>&</sup>lt;sup>135</sup> L.A. Police Dep't v. United Rep. Pub. Corp., 528 U.S. 32, 34 (1999).

<sup>&</sup>lt;sup>136</sup> *Id.* at 40. The decision in *United Reporting* was based on a facial challenge to the law, but whether the Court's reasoning would have been the same under an asapplied challenge is irrelevant to the point made by the Court regarding access to information made available by the government.

information, the law regulated what could be done with arrestee information that had previously been made generally available to the public. This would be prohibiting a speaker from conveying information that the speaker already possesses, and it would also restrict receipt of that information by parties prohibited by the law from accessing it. For example, if the law required that "previously public arrestee information held by a member of the public shall not be distributed to private investigators or anyone seeking information about individuals' arrest status," private investigators, and the entire public, would be restricted from receiving information that was legally in the possession of individuals willing to provide it. Far beyond a regulation would be a new government limit on what kinds of legally held information may be exchanged.

Indeed, the Court has addressed an analogous regulation in Sorrell v. IMS Health, Inc. The Vermont law at issue in that case restricted the use of pharmacy records that reveal doctors' prescribing practices for marketing purposes.<sup>137</sup> Thus, unlike the LAPD regulation in United Reporting which dealt with access to information held by the government, the Vermont law regulated how information held legally by private parties could be distributed. One of the groups that challenged the law was a Vermont data mining organization that scraped prescriber information from pharmacy records and leased the information to pharmaceutical companies.<sup>138</sup> Under the law, the group—the proposed recipient of the information-was blocked from receiving information about doctors' prescribing practices, even though the owners of the information (pharmacies) were perfectly willing to provide it.<sup>139</sup> In overturning the Vermont law on First Amendment grounds, Justice Kennedy recognized the right of noninterference with receipt, highlighting the data miner's First Amendment interest in receiving the information.<sup>140</sup> Justice Kennedy emphasized that in concurring and dissenting opinions in United Reporting, eight Justices had recognized that "restrictions on the disclosure of [] information can facilitate or burden the expression of potential recipients" in

<sup>&</sup>lt;sup>137</sup> Sorrell v. IMS Health Inc., 564 U.S. 552, 557 (2011).

<sup>&</sup>lt;sup>138</sup> Id.

<sup>&</sup>lt;sup>139</sup> *Id.* at 558.

<sup>&</sup>lt;sup>140</sup> *Id.* at 569–70 ("Vermont's law imposes a content- and speaker- based burden *on respondent's own speech.*") (emphasis added).

addition to burdening the expression of those who are willing to provide the information.<sup>141</sup>

# *C. The Maryland Law Interferes with the Right of Noninterference with Receipt*

Under the Court's precedents in *Florida Star*, *United Reporting*, and *Sorrell*, a state may not interfere with receipt of information legally held by another and available to the public. The Maryland Law regulating IGG requires that, at the end of an investigation, IGG practitioners "turn over to the investigator all records and materials collected in the course of the [investigation], including material sourced from public records, family trees constructed, and any other genetic or nongenetic data collected,"<sup>142</sup> and provides criminal penalties for retaining any records.<sup>143</sup> As discussed above, the "records and materials" collected and used by IGG practitioners in their work consist almost entirely of publicly-accessible materials legally held by private organization or made generally available by states and the federal government.<sup>144</sup>

For example, in the course of an investigation, an IGG might consult:

- a 1940 U.S. Census record listing the names and addresses of families living in a particular neighborhood;
- a 1910 birth record issued by the state of Utah;
- an obituary published in a newspaper;
- a public Facebook post;
- a public family tree on Ancestry.com.

These materials and records are all legally held and otherwise generally available to the public. The U.S. Census is made public by federal statute.<sup>145</sup> The birth record is made public

 <sup>&</sup>lt;sup>141</sup> *Id.* at 569. After *Sorrell*, a whole host of laws that restrict access to information in public records depending on the recipient's intended use are arguably under threat. *See* Carolyn Petersen et al., *Sorrell v. IMS Health: Issues and Opportunities for Informaticians*, 20 J. AM. MED. INFO. Ass'N. 35, 36 (2012). Indeed, as Ashutosh Bhagwat reasons, after *Sorrell*, "few laws preventing data disclosure to protect privacy are likely to survive the 'compelling interest' requirement' of the traditional strict scrutiny test," now applied to nearly all speech. Ashutosh Bhagwat, *Sorrell v. IMS Health: Details, Detailing, and the Death of Privacy*, 36 VT. L. REV. 855, 873 (2012).
 <sup>142</sup> MD. CODE ANN., CRIM. PROC. § 17-102(h)(1)(ii)(1.) (LexisNexis 2022).

<sup>&</sup>lt;sup>143</sup> *Id.* § 17-102(j)(2).

<sup>&</sup>lt;sup>144</sup> See supra Part I.C.

<sup>&</sup>lt;sup>145</sup> Act of Oct. 5, 1978, Pub. L. No. 95-416, 92 Stat. 915 (establishing the "72-Year Rule").

by state statute.<sup>146</sup> The obituary is information printed in a newspaper generally available to the public. The Facebook page was made public by choice of the user<sup>147</sup> as was the family tree on Ancestry.com.<sup>148</sup> The census, birth, and obituary records are also made available to the public through information aggregation sites such as Ancestry.com, FamilySearch.org, and others.<sup>149</sup> In this sense, these materials represent a crossover of the materials at issue in Florida Star, United Reporting, and Sorrell. Where those cases involved either government records made available directly to the public or information generated and held by private parties, the records offered by sites such as Ancestry.com contain information that is made generally available to the public and held legally by private parties who make the information more easily accessible to the public. A law requiring that IGG practitioners turn over all such records-with criminal penalties if the records are later found in the IGG practitioner's possession-restricts IGG practitioners' First Amendment right of noninterference with receipt.<sup>150</sup> While in United Reporting the Court recognized that the government may restrict who has access to government records, the Court in Florida Star recognized the corollary that if the government provides public access to its materials, it cannot (without meeting strict scrutiny) restrict publication of those materials. And Sorrell recognized the same rule with respect to information legally held by private parties. Yet, if an IGG working under the thumb of the Maryland Law were later in need of the same 1940 U.S. Census record, Utah birth record, obituary, or other public

<sup>&</sup>lt;sup>146</sup> UTAH CODE ANN. § 26-2-22(5)(a) (2021).

<sup>&</sup>lt;sup>147</sup> See Choose Who Can See Your Post on Facebook, FACEBOOK,

https://www.facebook.com/help/120939471321735?ref=dp (last visited Mar. 9, 2023).

<sup>&</sup>lt;sup>148</sup> See Privacy for Your Family Tree, ANCESTRY, https://www.ancestry.com/c/legal/privacyforyourfamilytree (last visited Mar. 9, 2023).

<sup>&</sup>lt;sup>149</sup> See United State Online Genealogy Records, FAMILYSEARCH WIKI,

https://www.familysearch.org/en/wiki/United\_States\_Online\_Genealogy\_Records (last visited Mar. 9, 2023) (showing which aggregation sites hold which public records).

<sup>&</sup>lt;sup>150</sup> Note that this is true even if we take it on board that certain information in public records *should* be subject to privacy protections, as Daniel J. Solove argues. *See generally* Daniel J. Solove, *Access and Aggregation: Public Records, Privacy, and the Constitution*, 86 MINN. L. REV. 1137 (2002). This is because even if Solove is right, the Maryland Law only restricts IGG practitioners from receiving and distributing information about Subjects' family relationship (and any documents containing even bits and pieces of that information). *See* MD. CODE, CRIM. PROC. § 17-102. It does not stop anyone else from receiving or sharing that information, so whatever privacy interest might exist is not bolstered by the law. *See id.* 

record, for a different genealogical problem unrelated to IGG work in Maryland, she would be unable to access them without fear of criminal sanction. Simply having the same page of the 1940 U.S. Census record "in any form" on her computer would subject her to the penalties under the Maryland Law.

As noted above, it may very well be that these provisions of the Maryland Law stem from a misunderstanding of the work of IGG practitioners and a misguided attempt to apply clinical laboratory regulations to primarily historical and private investigations work.<sup>151</sup> Indeed, the Maryland Law applies a similar requirement to destruction of the genetic profiles collected and analyzed during the investigation as well as any reports generated from those samples. But note the difference: the genetic profiles were collected and analyzed only as a result of the investigation; they do not independently exist as information available to the public. Requiring that labs destroy such samples does not interfere with any lab employee's First Amendment rights. Whether or not the Maryland Law's regulation of materials used by IGG practitioners stems from a good-faith conflation of IGG work with the work of a wet lab, the effect is the same: an interference with an IGG practitioner's First Amendment right to receive and use information legally held by others and on offer to the public.

# *D.* The Right of Noninterference as Distinct from Enforcement of Private Contracts

On first blush, the right of noninterference with receipt may appear to conflict with certain well-established and generally accepted laws. In particular, laws restricting the dissemination of trade secrets clearly interfere with receipt of information. For example, California's Uniform Trade Secrets Act defines "misappropriation" as, in part, "[a]cquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means . . . ."<sup>152</sup> We can easily imagine someone who is legally in possession of the information contained in a trade secret by virtue of present or past employment with a company and agrees to share it with the public.<sup>153</sup> Yet, the California law states that the public may not receive that information (at least as long as the public knows the information is a trade secret), and the

<sup>&</sup>lt;sup>151</sup> See supra Part I.E.

<sup>&</sup>lt;sup>152</sup> CAL. CIV. CODE § 3426.1(b)(1) (2012).

<sup>&</sup>lt;sup>153</sup> Thanks to an anonymous reviewer who raised this point.

California law and similar laws in other states have not been seriously challenged on First Amendment grounds.<sup>154</sup>

Despite appearing, on the surface, to contradict the right articulated here, protection of trade secrets by state governments does not implicate the First Amendment right of noninterference with receipt for three related reasons.<sup>155</sup> First, trade secret laws are enforced against the entire population of people who might knowingly expose or receive them. For example, California's Uniform Trade Secrets Act restricts anyone from knowingly revealing a trade secret without consent. It further restricts anyone from receiving the information contained in the trade secret if the individual knows the information is part of a trade secret and the right-holder has not given consent for the trade secret's release. In other words, the law protects trade secrets generally-it does not single out particular individuals for liability while allowing the rest of the public to freely share trade secrets. This is unlike the Maryland Law, which freely allows anyone other than IGG practitioners to receive publicly available information related to the family relationships of a Subject in an IGG investigation.

Second, trade secret law specifically protects information that is *not* otherwise available to the public. As Pamela Samuelson notes, "a firm cannot enforce a contract that information should be treated as a trade secret when it is not, in fact, a secret."<sup>156</sup> In other words, trade secret law is not enforced against an individual if the holder of the information has allowed others to share the information publicly. Again, trade secret law is meant to stop trade secrets from becoming available to others without consent of the right-holder. The Maryland Law, on the other hand, cannot have the goal of stopping the release or receipt of information related to the family relationships of a Subject since, again, only IGG practitioners are restricted by the law. Indeed, the comparison between trade secret law and the

<sup>&</sup>lt;sup>154</sup> Pamela Samuelson, *Principles for Resolving Conflicts between Trade Secrets and the First Amendment*, 58 HASTINGS L.J. 777, 779 (2007) ("Courts rarely consider First Amendment implications when issuing preliminary or permanent injunctions to prohibit the use or disclosure of trade secrets because defendants rarely raise the First Amendment as a defense to trade secret misappropriation claims."). *But see* Elizabeth A. Rowe, *Trade Secret Litigation and Free Speech: Is it Time to Restrain the Plaintiffs?*, 50 B.C. L. REV. 1425, 1425 n.1 (2009) (collecting articles arguing that trade secret law goes too far when it allows right-holders to use the law to silence otherwise protected speech or as a sword rather than a shield).
<sup>155</sup> Other commentators have argued why trade secret law does not generally interfere

<sup>&</sup>lt;sup>155</sup> Other commentators have argued why trade secret law does not generally interfere with the First Amendment. My specific purpose here is to show that the concerns about interference with receipt present in the Maryland Law are not implicated in trade secret law.

<sup>&</sup>lt;sup>156</sup> Samuelson, *supra* note 154, at 788.

Maryland Law is apt at showing the problem with the latter if we imagine a trade secret law that allowed companies to stop a particular employee from sharing information while allowing all other employees to do so freely.

Drawing from that comparison, the third reason that trade secret law does not implicate the right of noninterference with receipt is that the Maryland Law contains several "limiting doctrines . . . [that] mediate [First Amendment] tensions that might otherwise arise . . . . "<sup>157</sup> As Pamela Samuelson notes, enforcement of trade secrets can be lost by reverse engineering, accidental disclosure, independent creation by another, or through other means, proper and improper.<sup>158</sup> The upshot for First Amendment purposes is that once a trade secret has become, through whatever means, part of the "public domain," the law will no longer restrict any individual from receiving or sharing it.<sup>159</sup> The Maryland Law contains no such limited principles. IGG practitioners-and IGG practitioners aloneare restricted from receiving information that is otherwise part of the public domain. It would perhaps be one thing if the law restricted IGG practitioners from releasing information about a Subject's family relationships before the Subject's name was made public. But the law is not so limited. It restricts IGG practitioners from receiving-let alone releasing-that information for all time. The restriction applies even after a Subject's name has been made public, at which point anyone other than the IGG practitioner who worked on the case would be free to receive and share information about the Subject's family tree. This is a violation of the First Amendment right of noninterference with receipt of information legally held by another and otherwise available to the public.

### III. REGULATION OF IGG AS A PROFESSION

The argument above would hold with special strength if the Maryland Law somehow applied to all genealogists (even if such a law is difficult to imagine). Yet, the Maryland Law specifically regulates IGG practitioners *as professionals*.<sup>160</sup> The

<sup>&</sup>lt;sup>157</sup> Id. at 782.

<sup>&</sup>lt;sup>158</sup> Id. at 784 (citing Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974)).

<sup>&</sup>lt;sup>159</sup> Id. at 787.

<sup>&</sup>lt;sup>160</sup> See MD. CODE ANN., CRIM. PROC. § 17-104(a)(2) (LexisNexis 2022) (requiring a license for IGG practitioners who perform IGG work in Maryland). While IGG practitioners will often be conducting work for government agencies, there are other times when they will be working directly with defense and post-conviction attorneys,

question then arises whether an IGG practitioner's status as a professional-and one working as a government contractornullifies the claim that the Maryland Law violates an IGG practitioner's First Amendment right of noninterference with receipt. The key case here is National Institute of Family and Life Advocates v. Becerra,<sup>161</sup> which began to clarify the incipient "professional speech" doctrine. An analysis of that case, and its reframing of past cases dealing with similar issues, shows that framing IGG practitioners as professionals does not give a state carte blanche to restrict IGG practitioners' free speech rights. Another pair of cases instructive to the question is Snepp v. United States<sup>162</sup> and United States v. Marchetti,<sup>163</sup> both of which considered whether the government has greater authority to restrict its own employees' speech. Those two cases demonstrate that, while the government may restrict its employees' speech in certain ways, it may not do so with respect to publicly available information such as that accessed by IGG practitioners.

### A. Professional Speech Doctrine

# 1. NIFLA v. Becerra

Prior to *Becerra*, numerous federal courts had applied lesser scrutiny to First Amendment cases involving "professional speech," defined as speech based on "expert knowledge and judgment" by "individuals who provide personalized services to clients and who are subject to a generally applicable licensing and regulatory regime."<sup>164</sup> These courts carved the "professional speech" doctrine from a number of United States Supreme Court cases that had recognized states' right to regulate professions such as lawyering and providing medical services.<sup>165</sup> In *Becerra*, the Court took up a challenge to the incipient "professional speech" doctrine based on a California law that required some medical providers to notify anyone who attended the clinic of the availability of reproductive-related care provided through

which the law itself contemplates. *See id.* § 17-103. Thus, this Part addresses the First Amendment concerns with the Maryland Law for IGG practitioners as professionals generally, while the next addresses the concerns for IGG practitioners as government contracts specifically. Thanks to an anonymous reviewer for this important clarification.

<sup>161 138</sup> S. Ct. 2361 (2018).

<sup>&</sup>lt;sup>162</sup> 444 U.S. 507 (1980).

<sup>&</sup>lt;sup>163</sup> 466 F.2d 1309 (4th Cir. 1972).

<sup>&</sup>lt;sup>164</sup> Becerra, 138 S. Ct. at 2371 (internal quotations omitted).

<sup>&</sup>lt;sup>165</sup> *See id.* (collecting cases).

various California services.<sup>166</sup> While the regulation directly at issue in *Becerra*—as well as many of the regulations cited in that case—involved what might be termed "compelled speech,"<sup>167</sup> the Court's reasoning applies equally well to regulations such as the Maryland Law.

In *Becerra*, Justice Thomas, writing for the majority, noted two narrow areas where compelled speech may be subject to lesser scrutiny: disclosures and professional conduct.<sup>168</sup> The first comes from the case of *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*,<sup>169</sup> where Ohio required contingency-fee based attorneys to disclose the possibility of additional fees and costs in any advertisements. The Court deemed this requirement to touch only "purely factual and uncontroversial information about the terms under which . . . services will be available."<sup>170</sup>

The second involves "regulations of professional conduct that incidentally involves speech."<sup>171</sup> Justice Thomas lifted language from *Planned Parenthood of Southeastern v. Casey*<sup>172</sup> to define an area of professional speech subject to state regulation, namely speech that is "part of the *practice* [of a profession], subject to reasonable licensing and regulation by the State."<sup>173</sup> Justice Thomas noted that in *Casey*, the Court upheld the informed consent requirements for physicians performing abortions as "professional conduct that incidentally burdens speech."<sup>174</sup> In other words, the regulation there targeted the proper *practice* of medicine, which is within the power of the state to regulate, even if those regulations incidentally burden speech by requiring doctors to speak certain words.

Another relevant example of a regulation of professional conduct are laws that restrict attorneys from disclosing information learned from their clients. The rules of professional attorney conduct restrict attorneys' speech through two doctrines: attorney-client privilege and confidentiality.<sup>175</sup> These

<sup>&</sup>lt;sup>166</sup> *Id.* at 2365. The law also required unlicensed clinics to notify women that the clinic was not licensed by California to provide medical services. *Id.* 

<sup>&</sup>lt;sup>167</sup> *Id.* at 2376 ("California could inform low-income women about its services

without burdening a speaker with unwanted speech.") (internal quotations omitted). <sup>168</sup> *Id.* at 2372–73.

<sup>&</sup>lt;sup>169</sup> 471 U.S. 626, 633 (1985).

<sup>&</sup>lt;sup>170</sup> *Id.* at 651.

<sup>&</sup>lt;sup>171</sup> Becerra, 138 S. Ct. at 2373.

<sup>&</sup>lt;sup>172</sup> 505 U.S. 833 (1992).

<sup>&</sup>lt;sup>173</sup> Becerra, 138 S. Ct. at 2373 (emphasis in original).

<sup>&</sup>lt;sup>174</sup> Id.

<sup>&</sup>lt;sup>175</sup> See, e.g., MODEL RULES OF PRO. CONDUCT R. 1.6 (AM. BAR ASS'N 2020); see also *id.* R. 1.9(c).

doctrines limit what information an attorney may disclose from her professional relationship with a client even after the relationship has ended.<sup>176</sup> As with informed consent requirements, attorney-client privilege and confidentiality affect speech, but that effect is incidental to the regulation of professional *conduct*. While the former regulation requires speech and the latter restricts speech, the Court's interpretation of the First Amendment allows for both, subject to lesser scrutiny, so long as they are targeted at conduct by professionals that is "likely to pose dangers that the State has a right to prevent" and has "long been viewed as inconsistent with the profession's ideal

Considering the California regulation at issue in *Becerra*, the Court there found that it did not qualify as either a disclosure or a regulation of professional conduct.<sup>178</sup> Rather, the regulation required certain clinics to advise patients of services not necessarily related to their care.<sup>179</sup> Thus, the regulation was not a disclosure since it did not describe anything that might happen to the patient as a result of seeking care at the clinic, and it was not a regulation of professional conduct since it was not related to any procedure carried out at the clinic.<sup>180</sup>

While the two "narrow areas" of disclosure and professional conduct subject to less scrutiny are relevant to regulation of IGG practitioners' work, even more important is the Court's repudiation, in *Becerra*, of a broad swath of "professional speech" subject to lesser First Amendment scrutiny. Justice Thomas highlighted the danger of opening up whole areas of speech to government regulation based on the speaker's denotation as a "professional":

"Professional speech" is [] a difficult category to define . . . . All that is required to make something a "profession" . . . is that it involves personalized services and requires a professional license from the State. But that gives the States unfettered

<sup>176</sup> MODEL RULES OF PRO. CONDUCT R. 1.9(c) (AM. BAR ASS'N 2019). The conclusions of this Article arguably apply to rules restricting attorney disclosure of *publicly known* information as well, but that specific topic is beyond the scope here.
 <sup>177</sup> Ohralik v. Ohio State Bar Ass'n., 436 U.S. 447, 447 (1978) (cited in *Becerra*, 138 S.

Ct. at 2372-73).

<sup>&</sup>lt;sup>178</sup> Becerra, 138 S. Ct. at 2373.

<sup>&</sup>lt;sup>179</sup> *Id.* at 2373–74.

<sup>&</sup>lt;sup>180</sup> Id.

power to reduce a group's First Amendment right by simply imposing a licensing requirement.<sup>181</sup>

Justice Thomas emphasized that this fear of creeping government overreach is precisely why the Court "has been reluctant to mark off new categories of speech for diminished constitutional protection."<sup>182</sup> To be sure, much of Justice Thomas' discussion of this concern in Becerra involved invocations of a nefarious government seeking to "suppress unpopular ideas or information."183 But, as is clear from the preceding case of *Reed v. Town of Gilbert*<sup>184</sup> that struck down a town's differential treatment of directional signs, the Court is concerned with any content-based regulations of speech, even if the motive behind the regulation is entirely benign.<sup>185</sup> Given the Court's very broad concern with protecting speech from encroaching government regulation, the larger message of Becerra is that, outside of the two narrow categories described in that case. States may not use a scheme of professional licensing to restrict individuals' speech, broadly construed.

2. The Maryland Law Cannot Survive the Becerra Analysis

The Maryland Law calls for a licensing scheme for IGG practitioners to be developed by 2024.<sup>186</sup> IGG practitioners, though surely professionals in the colloquial sense already, would come under a "licensing and regulatory regime" at that time.<sup>187</sup> Only licensed IGG practitioners will be permitted to carry out IGG work in Maryland once the licensing scheme is adopted.<sup>188</sup> But as the Court's broad holding in *Becerra*—supplemented by *Reed*—makes clear, Maryland may not restrict IGG practitioners' free speech rights on this basis alone. And the Maryland Law does not fall into either of the narrow categories of professional speech regulation subject to lesser scrutiny. Under the Maryland Law, IGG practitioners are required to turn over "all records and materials" after completion of an

<sup>&</sup>lt;sup>181</sup> *Id.* at 2375.

<sup>&</sup>lt;sup>182</sup> *Id.* at 2372 (internal quotations omitted).

<sup>&</sup>lt;sup>183</sup> Id. at 2374 (internal quotations omitted).

<sup>&</sup>lt;sup>184</sup> 576 U.S. 155 (2015) (Thomas, J.).

<sup>&</sup>lt;sup>185</sup> See id. at 165 ("A law that is content based on its face is subject to strict scrutiny regardless of the government's benign motive, content-neutral justification, or lack of animus toward the ideas contained in the regulated speech.") (internal quotations omitted).

<sup>&</sup>lt;sup>186</sup> MD. CODE ANN., CRIM. PROC. § 17-104(a)(2) (LexisNexis 2022).

<sup>&</sup>lt;sup>187</sup> Becerra, 138 S. Ct. at 2371.

<sup>&</sup>lt;sup>188</sup> § 17-104(d)(2).

investigation, and they may not retain those materials "in any form," subject to criminal prosecution.<sup>189</sup> This clearly is not a disclosure requirement. The question is whether it is a permissible regulation of professional conduct which only incidentally involves speech.

The Maryland Law apparently seeks to prevent a variety of potential harms to individuals whose information might be accessed in the course of an IGG investigation.<sup>190</sup> But the reasoning of Becerra shows that this concern-even if reasonable-is outside the scope of permissible regulation of professional conduct. As described above, the Court in Becerra tightly circumscribed what interests a State may seek to protect in regulating professional conduct.<sup>191</sup> The regulation at issue in that case was meant to reduce harm to women who needed reproductive services by providing them with notice of the availability of such services at other clinics and regulate conduct by individuals who were licensed to carry out reproductive services. But because the notice requirement did not regulate professional conduct by clinicians to their clients (or prospective clients), the regulation did not fall into the narrow category of professional conduct.<sup>192</sup> This was in contrast to the informed consent requirement in Casey, where the regulation ensured that clients knew what they were getting into when undergoing a specific medical procedure by a specific medical provider. In other words, to fall under the professional conduct category, a regulation must directly involve the interests of the client with respect to the specific professional.<sup>193</sup>

With the Maryland Law, on the other hand, the regulation seeks to prevent harm, not to the client but to third parties. The "client" for an IGG is the State itself. The State hires the IGG practitioner to conduct a genetic genealogical investigation.<sup>194</sup> The IGG practitioner is paid by the State. All of the benefits of the IGG practitioner's work confer to the State. Third parties whose publicly available information—through

<sup>&</sup>lt;sup>189</sup> Id. §§ 17-102(h)(1)(ii)(1.), 17-102(h)(1)(ii)(2.), 17-102(j)(2).

<sup>&</sup>lt;sup>190</sup> In the judiciary committee bill hearing, Del. Shetty said the bill sought to balance the "privacy concerns of individuals presumed innocent, and defendants, with the ability of law enforcement and prosecutors to effective use this [IGG] technology." *Forensic Genetic Genealogy DNA Analysis, Searching, Regulation, and Oversight: Hearing on H.B. 240 Before the Judiciary Comm.*, 2021 Leg., 442nd Sess. (Md. 2021) (statement of Del. Emily Shetty, Member, Judiciary Comm.).

<sup>&</sup>lt;sup>191</sup> See supra Part III.A.1.

<sup>&</sup>lt;sup>192</sup> See id.

<sup>&</sup>lt;sup>193</sup> Id.

<sup>&</sup>lt;sup>194</sup> The IGG practitioner may also work directly for the State.

census records, vital records, social media posts, newspapers articles, etc.—is accessed by IGG practitioners during their work on a case are not clients. As such, in keeping with *Becerra*, Maryland may not use the cover of a professional licensing scheme to restrict IGG practitioners' speech with respect to those third parties.

## *B. IGG* practitioners as Government Agents – Lesser First Amendment *Protections?*

1. Snepp v. United States and United States v. Marchetti

In addition to being professionals in their own right, in many contexts, IGG practitioners will be acting as either government employees or government contractors. This raises the question of whether IGG practitioners in those contexts would be subject to lesser First Amendment protections vis-à-vis the Maryland Law provisions requiring them to remove from their access "all records and materials" in "any form" after completion of a case.<sup>195</sup> The Court has made it clear that States may restrict what government employees can say-and publish—within the context of their employment. Most relevant to the issue at hand in the Maryland Law, the Court in Snepp v. United States held that a CIA official who published classified information without obtaining consent could be required to pay punitive damages for breaching his non-disclosure agreement.<sup>196</sup> The per curiam opinion did not directly address whether the same holding would apply to publication of non-classified material since the government in that case did not deny "as a general principle-Snepp's right to publish unclassified information."<sup>197</sup> However, in his dissent, Justice Stevens argued that "the Government's censorship authority would surely have been limited to the excision of classified material"<sup>198</sup> and noted that the Court had not disagreed with the reasoning from an earlier, Fourth Circuit case United States v. Marchetti.<sup>195</sup>

In *Marchetti*, the Fourth Circuit considered a circumstance similar to that in *Snepp*. Marchetti, an ex-CIA employee, published both classified and non-classified information in violation of a non-disclosure agreement he had signed.<sup>200</sup> The Fourth Circuit held that, while the government

<sup>&</sup>lt;sup>195</sup> MD. CODE ANN., CRIM. PROC. § 17-102(h)(1)(ii) (LexisNexis 2022).

<sup>&</sup>lt;sup>196</sup> 444 U.S. 507, 514–16 (1980).

<sup>&</sup>lt;sup>197</sup> *Id.* at 511.

<sup>&</sup>lt;sup>198</sup> *Id.* at 521, 521 n.11 (Stevens, J., dissenting).

<sup>&</sup>lt;sup>199</sup> 466 F.2d 1309 (1972).

<sup>&</sup>lt;sup>200</sup> *Id.* at 1311.

could restrict publication of classified information, "the First Amendment limits the extent to which the United States, contractually or otherwise, may impose secrecy requirements upon its employees and enforce them with a system of prior censorship. It precludes such restraints with respect to information which is unclassified or officially disclosed . . . . "201 The Marchetti court recognized the government's clear interest in protecting secret information and the corresponding lack of interest in protecting information available to the public.<sup>202</sup> And importantly, as Justice Stevens noted in *Snepp*, the Court has not repudiated the Fourth Circuit's analysis in Marchetti, and other federal courts have relied on the Marchetti holding-protecting a government employee's First Amendment right to publish nonclassified information—in subsequent years.<sup>203</sup> The result is a clear principle that even government employees may not be restricted from accessing or publishing publicly accessible information.

### 2. The Maryland Law Cannot Survive the *Snepp-Marchetti* Analysis

The reach of the Maryland Law would force IGG practitioners to relinquish access to a broad range of publicly accessible information. The *Snepp-Marchetti* line makes it clear that such a law goes too far and infringes directly on IGG practitioners' protected First Amendment rights. Even assuming that Maryland has a legitimate interest in protecting the release of the initial genetic matches to the Subject obtained by submitting DNA derived from a crime-scene sample to a public genetic database, that interest cannot extend to information otherwise available to the public.<sup>204</sup> Census records, vital records,

<sup>&</sup>lt;sup>201</sup> *Id.* at 1313.

<sup>&</sup>lt;sup>202</sup> See id.

<sup>&</sup>lt;sup>203</sup> See Heidi Kitrosser, Free Speech Aboard the Leaky Ship: Calibrating First Amendment Protections for Leakers of Classified Information, 6 J. NAT'L SEC. L. & POL'Y, 410, 411 (2013); see also McGehee v. Casey, 718 F.2d 1137 (D.C. Cir. 1983); Wilson v. CIA, 586 F.3d 171 (2d Cir. 2009).

<sup>&</sup>lt;sup>204</sup> The question might arise whether the government could restrict employees and contractors from sharing something like lists of social security numbers (thanks to an anonymous reviewer for this idea). Perhaps. But laws already exist that restrict sharing of social security numbers. *See generally* U.S. GOV'T ACCOUNTABILITY OFF., GAO-05-1016T, *Federal and State Laws Restrict Use of SSNs, yet Gaps Remain* (2005), https://www.gao.gov/products/gao-05-1016t. Social security numbers are, thus, not generally available to the public. If they were so available, a law restricting only particular government employees from sharing—or even receiving—them, while they otherwise proliferated freely in the public domain, would fall afoul of the right to noninterference with receipt.

obituaries published in newspapers, and even public social media posts are all accessible by the public,<sup>205</sup> so the information in those sources is *not* being protected by the Maryland Law. The only effect of the Maryland Law is to restrict specific individuals'—namely, IGG practitioners'—ability to access those otherwise publicly accessible materials.

#### IV. THE MARYLAND LAW CANNOT MEET STRICT SCRUTINY

The relevant provisions of the Maryland Law interfere with the protected First Amendment interest in noninterference with receipt, and this interest is not lessened by IGG practitioners' status as professionals or government contractors. The Maryland Law is, thus, presumptively unconstitutional. However, as is the case with all such laws, if Maryland can demonstrate that that law meets strict scrutiny, it could stand. Thus, the final question is whether the law furthers a compelling government interest and is narrowly tailored to that end.

# A. The Maryland Law Arguably Seeks to Protect "An Interest of the Highest Order"

In the judiciary committee bill hearing for the HB 240, which would become the Maryland Law on February 23, 2021, Delegate Shetty, the bill's sponsor, stated the purpose of the bill as "balanc[ing] the constitutional privacy concerns of individuals who are presumed innocent and defendants with the ability of law enforcement and prosecutors to effectively use this technology."<sup>206</sup> To be sure, the State has an interest in protecting innocent individuals from having their lives unnecessarily intruded upon in the course of a criminal investigation, and it is clear that Maryland had such an interest in mind when putting the Maryland Law into place. While the exact interest is nowhere explicitly stated, it seems clear from surrounding context that Maryland is concerned about law enforcement building family trees based on genetic and genealogical evidence that connect innocent people and their innocent ancestors to criminal perpetrators. Natalie Ram, a law professor who testified in support of the Maryland Law,<sup>207</sup> has written that IGG "subject[s] ordinary individuals to suspicionless genetic

<sup>&</sup>lt;sup>205</sup> See supra Part II.C.

<sup>&</sup>lt;sup>206</sup> Forensic Genetic Genealogy DNA Analysis, Searching, Regulation, and Oversight: Hearing on H.B. 240, supra note 190.

<sup>&</sup>lt;sup>207</sup> Natalie Ram, Written testimony of Prof. Natalie Ram supporting Senate Bill 187 (2021), https://mgaleg.maryland.gov/cmte\_testimony/2021/jpr/1gMP-

<sup>3</sup>A24Apotay4ezdSrOL74wYqh7xdo.pdf (last visited May 9, 2023).

searches"<sup>208</sup> and that "genetic profiles yield an extensive web of genetic relatives through whom an individual may potentially be identified . . . [and] [s]uch broad identifiability makes large swaths of American residents genetically identifiable to law enforcement, whether or not they have themselves participated in a consumer genetics platform."<sup>209</sup> Erin Murphy, another law professor who testified in support of the Maryland Law, has written similarly about the about the potential effects of individuals learning that they are related to a serious criminal perpetrator.<sup>210</sup>

Whether the interest articulated by Delegate Shetty and expanded on by Ram and Murphy is one of the "highest order" is debatable.<sup>211</sup> Innocent individuals are routinely caught up in criminal investigations and often those individuals are family members of the true perpetrator. Indeed, it is the very nature of criminal investigations that they intrude, on some level, on the lives of innocent individuals. Even the most clear-cut criminal investigation implicates an innocent person-at least for legal purposes-up until the moment of conviction, when the presumption of innocence vanishes.<sup>212</sup> But most criminal investigations are not so clear cut, and any number of innocent individuals may have their information—including publicly accessible and non-publicly accessible-accessed by law enforcement.<sup>213</sup> Some of these innocent individuals may be suspects, but often they are simply individuals who have some coincidental relation to the investigation. Thus, it is not clear that the privacy interests of individuals in the context of a law enforcement investigation is an interest of the highest order since that interest is routinely overridden by the interest in ensuring law enforcement can solve crimes. However, there is no harm in assuming, for the sake of argument, that the interest articulated

<sup>210</sup> Erin Murphy, Testimony of Erin Murphy (2019),

<sup>&</sup>lt;sup>208</sup> Ram et al., *Genealogy Databases and the Future of Criminal Investigation, supra* note 7, at 4.

<sup>&</sup>lt;sup>209</sup> Natalie Ram, *Investigative Genetic Genealogy and the Problem of Familial Forensic Identification, in* CONSUMER GENETIC TECHNOLOGIES: ETHICAL AND LEGAL CONSIDERATIONS, 211, 218 (2021).

https://mgaleg.maryland.gov/cmte\_testimony/2020/jpr/3363\_03102020\_103023-811.pdf (last visited May 9, 2023).

<sup>&</sup>lt;sup>211</sup> Reed v. Town of Gilbert, 576 U.S. 155, 172 (2015).

<sup>&</sup>lt;sup>212</sup> See Ross v. Moffitt, 417 U.S. 600, 610 (1974) ("The purpose of the trial stage from the State's point of view it to convert a criminal defendant from a person presumed innocent to one found guilty beyond a reasonable doubt.").

<sup>&</sup>lt;sup>213</sup> In addition to publicly accessible records, law enforcement has access to nonpublicly accessible databases that contain drivers' licenses, license plates, non-public criminal history, etc.

by Delegate Shetty is, indeed, an "interest of the highest order"<sup>214</sup> because the Maryland Law cannot meet the second prong of the strict scrutiny analysis.

## B. The Maryland Law is Both Overbroad and Underinclusive

A restriction on First Amendment protected speech is unconstitutionally overbroad when it restricts more speech than necessary to accomplish the state's compelling interest in regulating that speech and "could never be applied in a valid manner" or inhibit the "constitutionally protected speech of third parties."<sup>215</sup> However, the Court has made it clear that the overbreadth doctrine is "strong medicine" that should be only "sparingly" employed, preferring limiting constructions that narrow the reach of the restriction only to unprotected speech.<sup>216</sup>

The Maryland Law is substantially overbroad. As described in Part I, the law requires IGG practitioners to turn over "all records and materials collected in the course of the FGGS, including material sourced from public records . . . ."<sup>217</sup> On its face, this language includes publicly accessible records such as census records, vital records, public social media posts, and others. Yet, it is possible that a Maryland court could put a limiting construction on the language, applying it only to *non*-public records and materials accessed and created by IGG practitioners in the course of their work.

The larger problem for the Maryland Law is that it is hopelessly underinclusive. As the Court in *Reed* has made clear, a restriction on speech protected by the First Amendment cannot survive if it is underinclusive since "a law cannot be regarded as protecting an interest of the highest order . . . when it leaves appreciable damage to that supposedly vital interest unprohibited . . . ."<sup>218</sup> If the interest of the Maryland Law is to ensure that innocent individuals' genetic and genealogical ties to a criminal perpetrator are not made public, the law cannot achieve this end. Once the identity of a criminal perpetrator is made public, any member of the public could use the same publicly accessible materials available to IGG practitioners to identify the perpetrator's parents, grandparents, cousins, and so

<sup>&</sup>lt;sup>214</sup> Reed, 576 U.S. at 172.

<sup>&</sup>lt;sup>215</sup> N.Y. State Club Assn. v. N.Y.C., 487 U.S. 1, 4 (1988) (internal quotations omitted) (quoting Members of the City Council of L.A. v. Taxpayers for Vincent, 466 U.S. 789, 798 (1984)).

<sup>&</sup>lt;sup>216</sup> Id. at 14 (citing Broadrick v. Oklahoma, 413 U.S. 601, 613 (1973)).

<sup>&</sup>lt;sup>217</sup> MD. CODE ANN., CRIM. PROC. § 17-102(h)(1)(ii)(1.) (LexisNexis 2022).

<sup>&</sup>lt;sup>218</sup> Reed, 576 U.S. at 172.

on. And once genealogical ties are known, genetic ties are known as well given the predictable inheritance patterns of DNA.<sup>219</sup> Thus, the Maryland Law does nothing to protect the family members—whether close or distant—from being connected to the criminal perpetrator.

### CONCLUSION

IGG is a revolution in investigations. Over 800 cold cases have been resolved with the help of this four-year-old technique.<sup>220</sup> Innocent individuals have been exonerated. Countless victims have seen justice done. At the same time, there are legitimate concerns with IGG. Many of the provisions of the Maryland Law address these concerns in a way that balances the interest in protecting the public from overzealous law enforcement with the interest in seeing serious crimes solved (and innocent people exonerated). However, the provisions of the Maryland Law that require IGG practitioners to remove their access to "all records and materials"<sup>221</sup> gathered in the course of their work goes too far and infringes on IGG practitioners' First Amendment rights. Specifically, the Maryland Law infringes on IGG practitioners' right of noninterference with receipt of information legally held by another and otherwise available to the public, and the IGG practitioners' status as professionals or government agents does not reduce this protection. As other jurisdictions consider regulation of IGG, they should take care to avoid the infringing provisions of the Maryland Law.<sup>222</sup>

<sup>&</sup>lt;sup>219</sup> See supra Part I.B.

<sup>&</sup>lt;sup>220</sup> Dowdeswell, *supra* note 6.

<sup>&</sup>lt;sup>221</sup> § 17-102(h)(1)(ii)(1.).

<sup>&</sup>lt;sup>222</sup> As of April 2023, Montana and Utah are the only other states that directly regulate IGG, and both avoid provisions that violates IGG practitioners' First Amendment rights. *See* MONT. CODE ANN. § 44-6-1 (2022); S.B. 156, 65th Leg., Gen. Sess. (Utah 2023). Others will surely follow.