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IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

SECOND APPELLATE DISTRICT

DIVISION FOUR

THE PEOPLE,

Petitioner,

v.

THE SUPERIOR COURT OF
LOS ANGELES COUNTY,

Respondent;

MARTELL CHUBBS,

Real Party in Interest.

B258569

(Los Angeles County
Super. Ct. No. NA093179)

ORIGINAL PROCEEDINGS in mandate. Richard R. Romero, Judge. Writ granted.

Jackie Lacey, District Attorney, Roberta Schwartz and Matthew Brown, Deputy District Attorneys, for Petitioner.

No appearance for Respondent.

Angelyn Gates for Real Party in Interest.

Real party in interest Martell Chubbs was charged in a November 28, 2012 information with the murder of Shelley H. in 1977 (Pen. Code, § 187, subd. (a)).¹ The charge was filed after a DNA sample from the victim was found to be a match for Chubbs. The People petition for a writ of mandate to overturn the order of the superior court compelling the disclosure of a computer source code for software, TrueAllele® Casework (TrueAllele), which was used in the DNA analysis. The People contend that the source code is a protected trade secret of the creator and owner of the software, Mark W. Perlin, and his company, Cybergenetics. We grant the petition.

FACTUAL AND PROCEDURAL BACKGROUND

*Preliminary Hearing Evidence*²

In December 1977, Long Beach Police Department officers found the 17-year-old victim in her Long Beach apartment. She was lying on the end of the bed with her feet touching the ground and with an electrical wire tied around her neck. During an autopsy, swabs were taken from the victim's vagina and smeared onto slides.

In June 2011, as part of a cold case investigation, Sorenson Forensics (Sorenson) conducted a DNA test on the vaginal swabs from the victim. Sorenson generated a DNA report that indicated three contributors to the DNA: a major sperm DNA profile attributable to an unidentified male, a minor sperm DNA

¹ All unspecified statutory references are to the Penal Code.

² The People have not included the transcript of the preliminary hearing, instead relying on a declaration from the deputy district attorney who appeared at the preliminary hearing, summarizing the evidence.

profile, and a partial DNA profile attributable to the victim. Sorenson excluded the victim's husband, Nolan Hankins, as the source of the major sperm DNA profile.³

Although the record before us does not include the basis for the arrest, Long Beach Police Department detectives arrested Chubbs in August 2012. Chubbs confirmed that he lived in Long Beach in the 1970s.

In September 2012, Sorenson compared the DNA profile of Chubbs, an African-American, to the major sperm DNA profile and found a match. The frequency of the profile occurrence in the general population was determined to be one in approximately 10,000 for African Americans.

At the preliminary hearing in November 2012, Chubbs was held to answer for one count of murder. The information charged Chubbs with one count of murder and alleged six prior convictions of serious felonies (§ 667, subd. (a)(1)) that also qualified as strikes under the Three Strikes law (§§ 667, subds. (b)-(i), 1170.12, subds. (a)-(d)). In January 2013, Chubbs pleaded not guilty to the murder charge.

As part of trial preparation, in September 2013, the People sent the victim's vaginal slide to Cybergeneics' lab in Pittsburgh, Pennsylvania for further testing. Cybergeneics prepared a supplemental report, explaining that it had used its TrueAllele software to "infer possible DNA contributor genotypes from the samples," then compared the evidence genotypes to the reference genotypes (which included Chubbs' and Hankins' genotypes) to compute likelihood ratio DNA match statistics. "TrueAllele assumed that the evidence sample data . . . contained two or three contributors, and objectively inferred evidence genotypes solely from these data." Perlin concluded in the supplemental report that the DNA

³ Hankins is sometimes referred to in the record as the victim's boyfriend, rather than her husband.

match between the vaginal sperm sample and Chubbs is “1.62 quintillion times more probable than a coincidental match to an unrelated Black person.” Perlin also concluded that the DNA match with Hankins was “2.82 million times more probable than a coincidental match to an unrelated Black person.”

Defense Discovery Efforts

In November 2013, Chubbs made his third informal discovery request, which included the request at issue here, for Cybergentics’ source codes for TrueAllele. In January 2014, Chubbs filed a motion to compel discovery that included the request for Cybergentics’ source codes. Defense counsel cited statements in Cybergentics’ supplemental report indicating that TrueAllele made assumptions and inferences in computing its DNA match statistics. According to defense counsel, the TrueAllele program was “brand new” and had not been the subject of a *Kelly* hearing, and without the source codes there would be no way to cross examine Perlin about the efficacy and accuracy of the program.⁴

The defense received several discovery items related to Cybergentics and TrueAllele, including the following: the September 2013 supplemental report, a November 2013 case packet by Cybergentics, published articles by Perlin

⁴ The three-pronged test established in *People v. Kelly* (1976) 17 Cal.3d 24 “provides a framework within which courts can analyze the reliability of expert testimony based on new or novel scientific methods or techniques.” (*People v. Lucas* (2014) 60 Cal.4th 153, 223.) “‘The first prong requires proof that the technique is generally accepted as reliable in the relevant scientific community. [Citation.] The second prong requires proof that the witness testifying about the technique and its application is a properly qualified expert on the subject. [Citation.] The third prong requires proof that the person performing the test in the particular case used correct scientific procedures.’ [Citation.]” (*Id.* at p. 223, fn. 31.) The test is also known as the *Kelly/Frye* test. (*In re Jordan R.* (2012) 205 Cal.App.4th 111, 115, fn. 3; see *Frye v. U.S.* (D.C. Cir. 1923) 293 F. 1013.)

regarding DNA analysis and the TrueAllele software, a data disc from Sorenson, TrueAllele manuals from March 2014, a data disc from Cybergenetics, and a PowerPoint presentation to be used by Perlin. However, the dispute here focuses on the source codes for TrueAllele, which were not produced.

On January 15, 2014, the People filed an opposition to the motion to compel discovery, arguing that the defense was not entitled to a discovery order because the People had voluntarily complied with their discovery obligations, citing section 1054.5, subdivision (a).⁵ As pertinent here, the People explained that they requested the source code from Cybergenetics, but Cybergenetics did not turn it over because it is a trade secret. The People argued that disclosure of the source code would be “financially devastating” to Cybergenetics.

The People stated in their opposition that, although Cybergenetics is unwilling to disclose its source code, it “is willing to conduct additional TrueAllele testing on a limited set of defense-provided data to further defense understanding of the system, its operation and its reliability. Cybergenetics is also willing to meet with defense experts (in person or via an Internet meeting) to show them the results in this case, and explain to them on a TrueAllele computer how the system operates, though Cybergenetics cannot provide [the] defense with a[n] executable version of the TrueAllele casework system which costs \$60,000.”

⁵ The statute provides: “No order requiring discovery shall be made in criminal cases except as provided in this chapter. This chapter shall be the only means by which the defendant may compel the disclosure or production of information from prosecuting attorneys, law enforcement agencies which investigated or prepared the case against the defendant, or any other persons or agencies which the prosecuting attorney or investigating agency may have employed to assist them in performing their duties.” (§ 1054.5, subd. (a).)

Chubbs then filed an application for an out-of-state subpoena duces tecum, seeking the source codes for the TrueAllele software. He argued that the source codes were essential to his defense because the DNA evidence from the vaginal slide was the only evidence against him. He pointed out the discrepancy between the random match probability calculated by Sorenson (1 in approximately 10,000) and the likelihood ratio calculated by Cybergenetics (1.62 quintillion times more probable than a coincidental match) to argue that the source codes were necessary to cross-examine Perlin about the accuracy of TrueAllele.

In a declaration submitted with the application, defense counsel stated that forensic experts and other attorneys who work with DNA evidence advised her to obtain the source codes for TrueAllele. She stated that “other experts in the field have developed a similar software program as TrueAllele for which their source codes are open for public review.” Defense counsel further stated that Allan Jamieson, an expert in DNA analysis who had experience with TrueAllele, told her that she could not properly defend against the TrueAllele results without the source codes.

Jamieson stated in his declaration that “access to this code is the only satisfactory and professionally recommended way to fully consider the validity of the TrueAllele analysis” in this case. He stated that “[o]ther analysts who have developed computer-assisted DNA comparison software . . . do not hide their source codes” and instead make them freely available, which allows others to fully review and verify the reliability of the method and results in any given case.

Motion to Quash

On May 16, 2014, the People filed a motion to quash the subpoena duces tecum. Contrary to its earlier argument in its opposition to the motion to compel

discovery, the People now argued that Cybergenetics was not a third party to the investigation but instead was an investigatory agency within the meaning of section 1054.5, subdivision (a).

The trial court denied the People's motion to quash and issued a certificate for an out-of-state subpoena, ordering Perlin to produce the source codes. On June 16, 2014, a Pennsylvania court issued an order directing compliance with the subpoena duces tecum. The Pennsylvania court reasoned that Perlin was a material witness, and the means by which he arrived at his opinions likewise was material. The court thus ordered Perlin to appear with the source codes and stated that any issue regarding the disclosure of trade secrets should be determined by the California court.

The People moved to quash the subpoena duces tecum. The People argued that the materials are a trade secret, that Chubbs has not established the source codes are material or necessary, and that the discovery is not permitted by section 1054, subdivision (e).⁶

On June 24, 2014, the trial court issued and held a body attachment for Perlin based on his failure to appear pursuant to the subpoena duces tecum. The People subsequently withdrew the contention that Perlin was an expert employed by the prosecution pursuant to subdivision (a) of section 1054.5, noting that Perlin had retained private counsel regarding the trade secret privilege.

Perlin, represented by California counsel, submitted a brief in support of his assertion of the trade secret privilege. The People filed a motion to reconsider the

⁶ Section 1054 states that the chapter on discovery "shall be interpreted to give effect to all of the following purposes," including "[t]o provide that no discovery shall occur in criminal cases except as provided by this chapter, other express statutory provisions, or as mandated by the Constitution of the United States." (§ 1054, subd. (e).)

court's May 16 order denying the People's motion to quash the subpoena duces tecum, and for an order granting the motion and quashing the body attachment held for Perlin.

At a July 29, 2014 hearing, the court ruled the source codes are not necessary pursuant to *Kelly/Frye*, but that Chubbs' right to confront and cross-examine witnesses required the production of the source codes. The prosecutor again invoked the trade secret privilege on Perlin's behalf. The court found that nondisclosure of the source codes does "work injustice" in the sense that it denies Chubbs a right to confront and cross-examine witnesses (Evid. Code, § 1060), and that a protective order can protect Perlin's interest. The court indicated that it would follow the procedure set forth in Evidence Code sections 1061 and 1062, by issuing a protective order and, if needed, excluding the public from the proceedings. The court held the body attachment for Perlin until August 26 and ordered the prosecution to provide the source codes on that date.

On August 26, 2014, the court deemed the TrueAllele source code a trade secret for purposes of the trial. Perlin brought an encrypted form of the source code. However, before turning over the source code, the prosecution raised the issue of a protective order. The court explained that although it would grant a protective order to minimize disclosure of the source code, the source code would be revealed to a certain extent at trial. The People subsequently did not proffer a protective order, but instead refused to turn over the source code. Defense counsel requested the exclusion of the TrueAllele results at trial. The court granted the request based on Chubbs' rights under the confrontation clause and the fact Perlin was to be a main prosecution witness against Chubb.

The People petitioned for a writ of mandate to this court. We issued an alternative writ of mandate ordering the superior court to vacate the July 29 and

August 26, 2014 orders compelling the disclosure of the computer source codes, or to show cause why a peremptory writ of mandate should not issue.⁷ The superior court did not vacate its ruling, and the matter is now before us.

DISCUSSION

The People contend that the trial court improperly applied the trade secret privilege and that Chubbs failed to make a prima facie showing sufficient to overcome the privilege.⁸ “The court’s ruling on a discovery motion is subject to review for abuse of discretion. [Citation.]” (*People v. Jenkins* (2000) 22 Cal.4th 900, 953.) “A trial court has abused its discretion in determining the applicability of a privilege when it utilizes the wrong legal standards to resolve the particular issue presented. [Citation.]” (*Seahaus La Jolla Owners Assn. v. Superior Court* (2014) 224 Cal.App.4th 754, 766.)

We begin by setting forth the statutes and law regarding the trade secret privilege.

⁷ We further issued a temporary stay of the trial.

⁸ We disagree with Chubbs’ contention that the trial court’s ruling was an evidentiary ruling not subject to writ review. Although the trial court’s ultimate ruling was to exclude the TrueAllele evidence, this was based on the People’s refusal to disclose the source codes. “‘Extraordinary review of a discovery order will be granted when a ruling threatens immediate harm, such as loss of a privilege against disclosure, for which there is no other adequate remedy. [Citation.] . . . “[W]here the petitioner seeks relief from a discovery order that may undermine a privilege, we review the trial court’s order by way of extraordinary writ. [Citation.]” [Citation.]’ [Citation.]” (*Doe v. Superior Court* (2011) 194 Cal.App.4th 750, 754; see also § 1512, subd. (a) [authorizing the people to seek review of an order granting a defendant’s motion for discovery by a petition for a writ of mandate]; *People v. Superior Court (Mouchaourab)* (2000) 78 Cal.App.4th 403, 413 [“writ review is appropriate when the petitioner ‘seeks relief from a discovery order which may undermine a privilege, because appellate remedies are not adequate once the privileged information has been disclosed’”].)

I. *Trade Secret Privilege*

Evidence Code section 1060 provides: “If he or his agent or employee claims the privilege, the owner of a trade secret has a privilege to refuse to disclose the secret, and to prevent another from disclosing it, if the allowance of the privilege will not tend to conceal fraud or otherwise work injustice.” In the instant case, it is undisputed that the source codes in issue constitute a trade secret. (See Evid. Code, § 1062, subd. (a) [for purposes of Evidence Code sections 1061, 1062, and 1063, which apply to criminal cases, “[t]rade secret” is defined in Civil Code section 3426.1 or Penal Code section 499c, subdivision (a)(9)].)

In civil cases, a burden-shifting procedure is used to evaluate assertion of the trade secret privilege. Based on the language and legislative history of Evidence Code section 1060, the court in *Bridgestone/Firestone, Inc. v. Superior Court* (1992) 7 Cal.App.4th 1384 (*Bridgestone*) held that “the party claiming the [trade secret] privilege has the burden of establishing its existence. [Citations.] Thereafter, the party seeking discovery must make a prima facie, particularized showing that the information sought is relevant and necessary to the proof of, or defense against, a material element of one or more causes of action presented in the case, and that it is reasonable to conclude that the information sought is essential to a fair resolution of the lawsuit. It is then up to the holder of the privilege to demonstrate any claimed disadvantages of a protective order.” (*Id.* at p. 1393; see also *Raymond Handling Concepts Corp. v. Superior Court* (1995) 39 Cal.App.4th 584, 590-591 [relying on the procedure enunciated in *Bridgestone* and concluding that the information was discoverable and that the trial court did not abuse its discretion in entering a protective order].)

Chubbs contends that when a defendant in a criminal case seeks disclosure of an item meeting the definition of a trade secret, Evidence Code section 1060 does not permit the owner of the trade secret to refuse to disclose. Rather, according to Chubbs, Evidence Code sections 1061 and 1062 supersede section 1060, and authorize only (on a proper showing) the remedy of a protective order (§ 1062) and exclusion of the public from portions of the trial at which a trade secret might be revealed (§ 1062). Evidence Code section 1061 provides: “In addition to Section 1062, the following procedure shall apply whenever the owner of a trade secret wishes to assert his or her trade secret privilege, as provided in Section 1060, during a criminal proceeding.” (Evid. Code, § 1061, subd. (b).) The statute then sets forth a procedure under which the holder of the trade secret privilege or an authorized representative may move for a protective order (Evid. Code, § 1061, subd. (b)(1)), any party to the proceeding may oppose the motion (*id.*, subd. (b)(2)), and the court, on a finding “that a trade secret may be disclosed . . . unless a protective order is issued and that the issuance of a protective order would not conceal a fraud or work an injustice, . . . issue[s] a protective order limiting the use and dissemination of the trade secret” (*id.*, subd. (b)(4)).⁹

⁹ Evidence Code section 1061 provides in relevant part: “(b) In addition to Section 1062, the following procedure shall apply whenever the owner of a trade secret wishes to assert his or her trade secret privilege, as provided in Section 1060, during a criminal proceeding:

“(1) The owner of the trade secret shall file a motion for a protective order, or the people may file the motion on the owner’s behalf and with the owner’s permission. The motion shall include an affidavit based upon personal knowledge listing the affiant’s qualifications to give an opinion concerning the trade secret at issue, identifying, without revealing, the alleged trade secret and articles which disclose the secret, and presenting evidence that the secret qualifies as a trade secret under either subdivision (d) of Section 3426.1 of the Civil Code or paragraph (9) of subdivision (a) of Section 499c of the Penal Code. The motion and affidavit shall be served on all parties in the proceeding.

“(2) Any party in the proceeding may oppose the request for the protective order by submitting affidavits based upon the affiant’s personal knowledge. The affidavits shall be filed under seal, but shall be provided to the owner of the trade secret and to all parties in the proceeding. Neither the owner of the trade secret nor any party in the proceeding may disclose the affidavit to persons other than to counsel of record without prior court approval.

“(3) The movant shall, by a preponderance of the evidence, show that the issuance of a protective order is proper. The court may rule on the request without holding an evidentiary hearing. However, in its discretion, the court may choose to hold an in camera evidentiary hearing concerning disputed articles with only the owner of the trade secret, the people’s representative, the defendant, and defendant’s counsel present. If the court holds such a hearing, the parties’ right to examine witnesses shall not be used to obtain discovery, but shall be directed solely toward the question of whether the alleged trade secret qualifies for protection.

“(4) If the court finds that a trade secret may be disclosed during any criminal proceeding unless a protective order is issued and that the issuance of a protective order would not conceal a fraud or work an injustice, the court shall issue a protective order limiting the use and dissemination of the trade secret, including, but not limited to, articles disclosing that secret. The protective order may, in the court’s discretion, include the following provisions:

“(A) That the trade secret may be disseminated only to counsel for the parties, including their associate attorneys, paralegals, and investigators, and to law enforcement officials or clerical officials.

“(B) That the defendant may view the secret only in the presence of his or her counsel, or if not in the presence of his or her counsel, at counsel’s offices.

“(C) That any party seeking to show the trade secret, or articles containing the trade secret, to any person not designated by the protective order shall first obtain court approval to do so:

“(i) The court may require that the person receiving the trade secret do so only in the presence of counsel for the party requesting approval.

“(ii) The court may require the person receiving the trade secret to sign a copy of the protective order and to agree to be bound by its terms. The order may include a

Evidence Code section 1062 similarly provides a procedure under which “the court, upon motion of the owner of a trade secret, or upon motion by the People with the consent of the owner, may exclude the public from any portion of a criminal proceeding where the proponent of closure has demonstrated a substantial probability that the trade secret would otherwise be disclosed to the public during that proceeding and a substantial probability that the disclosure would cause serious harm to the owner of the secret, and where the court finds that there is no

provision recognizing the owner of the trade secret to be a third-party beneficiary of that agreement.

“(iii) The court may require a party seeking disclosure to an expert to provide that expert’s name, employment history, and any other relevant information to the court for examination. The court shall accept that information under seal, and the information shall not be disclosed by any court except upon termination of the action and upon a showing of good cause to believe the secret has been disseminated by a court-approved expert. The court shall evaluate the expert and determine whether the expert poses a discernible risk of disclosure. The court shall withhold approval if the expert’s economic interests place the expert in a competitive position with the victim, unless no other experts are available. The court may interview the expert in camera in aid of its ruling. If the court rejects the expert, it shall state its reasons for doing so on the record and a transcript of those reasons shall be prepared and sealed.

“(D) That no articles disclosing the trade secret shall be filed or otherwise made a part of the court record available to the public without approval of the court and prior notice to the owner of the secret. The owner of the secret may give either party permission to accept the notice on the owner’s behalf.

“(E) Other orders as the court deems necessary to protect the integrity of the trade secret.

“(c) A ruling granting or denying a motion for a protective order filed pursuant to subdivision (b) shall not be construed as a determination that the alleged trade secret is or is not a trade secret as defined by subdivision (d) of Section 3426.1 of the Civil Code or paragraph (9) of subdivision (a) of Section 499c of the Penal Code. Such a ruling shall not have any effect on any civil litigation.”

overriding public interest in an open proceeding. No evidence, however, shall be excluded during a criminal proceeding pursuant to this section if it would conceal a fraud, work an injustice, or deprive the People or the defendant of a fair trial.”

(Evid. Code, § 1062, subd. (a).)¹⁰

¹⁰ Section 1062 provides in full: “(a) Notwithstanding any other provision of law, in a criminal case, the court, upon motion of the owner of a trade secret, or upon motion by the People with the consent of the owner, may exclude the public from any portion of a criminal proceeding where the proponent of closure has demonstrated a substantial probability that the trade secret would otherwise be disclosed to the public during that proceeding and a substantial probability that the disclosure would cause serious harm to the owner of the secret, and where the court finds that there is no overriding public interest in an open proceeding. No evidence, however, shall be excluded during a criminal proceeding pursuant to this section if it would conceal a fraud, work an injustice, or deprive the People or the defendant of a fair trial.

“(b) The motion made pursuant to subdivision (a) shall identify, without revealing, the trade secrets which would otherwise be disclosed to the public. A showing made pursuant to subdivision (a) shall be made during an in camera hearing with only the owner of the trade secret, the People’s representative, the defendant, and defendant’s counsel present. A court reporter shall be present during the hearing. Any transcription of the proceedings at the in camera hearing, as well as any articles presented at that hearing, shall be ordered sealed by the court and only a court may allow access to its contents upon a showing of good cause. The court, in ruling upon the motion made pursuant to subdivision (a), may consider testimony presented or affidavits filed in any proceeding held in that action.

“(c) If, after the in camera hearing described in subdivision (b), the court determines that exclusion of trade secret information from the public is appropriate, the court shall close only that portion of the criminal proceeding necessary to prevent disclosure of the trade secret. Before granting the motion, however, the court shall find and state for the record that the moving party has met its burden pursuant to subdivision (b), and that the closure of that portion of the proceeding will not deprive the People or the defendant of a fair trial.

“(d) The owner of the trade secret, the People, or the defendant may seek relief from a ruling denying or granting closure by petitioning a higher court for extraordinary relief.

Although Chubbs does not expressly acknowledge it, an implicit premise of his contention seeking disclosure of the source codes is that a criminal defendant need not make a prima facie showing of the relevance and necessity of the trade secret before disclosure occurs. Rather, upon a defense request for material that qualifies as a trade secret, the holder of the trade secret privilege cannot object on the ground that no showing of relevance and necessity has been made. To the contrary, the privilege holder's only remedies, even for material as to which there is no relevance and necessity, are to seek a protective order limiting the terms of disclosure (but not precluding disclosure) under Evidence Code section 1061, and closing the proceedings at which the trade secret might be disclosed under Evidence Code section 1062.

We decline to read Evidence Code sections 1061 and 1062 in such a manner. In short, it makes no sense to require the holder of a trade secret privilege to submit to disclosure of the trade secret, even subject to a protective order and the closing of certain proceedings, without a showing that the trade secret is relevant and necessary to the defense. (See *People v. Superior Court (Barrett)* (2000) 80 Cal.App.4th 1305, 1318 [“A criminal defendant has a right to discovery by a subpoena duces tecum of third party records on a showing of good cause -- that is, specific facts justifying discovery.”].) We thus conclude that the test for trade

“(e) Whenever the court closes a portion of a criminal proceeding pursuant to this section, a transcript of that closed proceeding shall be made available to the public as soon as practicable. The court shall redact any information qualifying as a trade secret before making that transcript available.

“(f) The court, subject to Section 867 of the Penal Code, may allow witnesses who are bound by a protective order entered in the criminal proceeding protecting trade secrets, pursuant to Section 1061, to remain within the courtroom during the closed portion of the proceeding.”

secret disclosure adopted in *Bridgestone* -- a prima facie, particularized showing that the source code is relevant and necessary to the defense -- is required for Chubbs to require disclosure of the source codes.

The trial court here correctly began with a determination under Evidence Code section 1060 that the source code is a trade secret and then moved to the issue of a protective order pursuant to Evidence Code section 1061. However, because we find that Chubbs did not meet his prima facie burden for disclosure, we conclude that the People should not have been compelled to produce the source code, whether or not subject to a protective order.

II. *Chubbs' Evidence Regarding Necessity of Source Code*

Chubbs submitted declarations from defense counsel and Jamieson to support his contention that the source code is essential to his defense.¹¹ Defense counsel relied on the fact that the DNA evidence was the only evidence connecting Chubbs to the victim.

Defense counsel further declared that without the source code, “there is no way for my expert to determine what assumptions, among other things, have been made and if they are appropriate in this particular case.” In her application for the subpoena duces tecum, she declared that her DNA experts, another forensic DNA consultant (who has helped develop a program similar to TrueAllele with source codes open for public review), and unidentified attorneys “who focus on DNA

¹¹ Chubbs attached to his return a declaration from Dr. Travis Doom regarding the necessity of the source codes. We decline to consider the declaration because it was not submitted to the trial court. (See *Pomona Valley Hospital Medical Center v. Superior Court* (2013) 213 Cal.App.4th 828, 835, fn. 5 [“Writ review does not provide for consideration of evidence not before respondent court at the time of its ruling.”].)

evidence regarding TrueAllele” advised her to request the source codes and pseudo source codes.

In Jamieson’s declaration, he claimed ten years of forensic experience, as well as familiarity with TrueAllele’s “claimed methodology and use” and “experience” in court with TrueAllele. He opined that “access to this code is the only satisfactory and professionally recommended way to fully consider the validity of the TrueAllele analysis” in this case. He claimed that others who have developed computer-assisted DNA comparison software “do not hide their source codes” and instead make them freely available, which allows others to fully review and verify the reliability of the method and results in any given case.

In considering whether Chubbs has made a prima facie showing of the necessity of the source code to his defense, we consider not only Chubbs’ evidence but also Perlin’s declaration, which was submitted in support of the People’s motion to quash the subpoena duces tecum. (See *Bridgestone, supra*, 7 Cal.App.4th at p. 1395 [“while the burden of making a prima facie showing of the particularized need for a trade secret is on the party seeking discovery, the trial court need not ignore evidence presented by the opposing party on the question whether the information sought is a trade secret”].)

Perlin explained that TrueAllele is useful when uncertainty in DNA analysis arises, such as when two or more people contribute to the evidence, and it decreases uncertainty by comparing information to a suspect. TrueAllele is “Cybergentics’ computer implementation of [a] two-step DNA identification inference approach.” This process involves, first, “objectively inferring genotypes from evidence data, accounting for allele pair uncertainty using probability,” and “subsequently matching genotypes, comparing evidence with a suspect relative to a population, to express the strength of association using probability.”

Perlin declared that TrueAllele is widely accepted, having been used in approximately 200 criminal cases in courts in California, Pennsylvania, and Virginia, and it has been subjected to numerous validation studies, five of which were published in peer-reviewed scientific journals.

Perlin explained that software source code is the programming language used to write a computer program. The source code “details step-by-step human-readable instructions that describe to the computer and programmers how the program operates,” and is “translated into computer-readable ‘executable’ software.” He stated that TrueAllele has about 170,000 lines of computer source code and opined that reading through the source code would not yield meaningful information.

As to the proprietary nature of the source code, Perlin explained that others “can easily copy a computer program if they have its source code,” which “contains the software design, engineering know-how, and the algorithmic implementation of the entire computer program.” Cybergenetics has invested millions of dollars over 20 years to develop TrueAllele, which it offers to crime labs for a base license fee of \$60,000.

Perlin differentiated TrueAllele from the open source DNA analysis software programs referenced in the declarations of defense counsel and Jamieson, stating that open source programs “typically are not validated prior to release, because the process of perfecting software is costly.” In addition, open source forensic programs “tend to be relatively short programs consisting of several hundreds of lines of code,” in contrast to the 170,000 lines of code in TrueAllele.

Cybergenetics accordingly has never disclosed the source code to anyone outside the company and does not distribute it to businesses or government agencies that license the software. Cybergenetics does, however, disclose

TrueAllele’s methodology and its “underlying mathematical model” to enable others to understand its genotype modeling mechanism. The company “provides opposing experts the opportunity to review the TrueAllele process, examine results, and ask questions.”

Cybergenetics keeps the source code secret because of the “highly competitive commercial environment” in which it operates. Perlin declared that Cybergenetics’ competitors are interested in replicating TrueAllele and that disclosure of the source code would enable its competitors to copy the product, causing the company irreparable harm. Perlin believed that source code is not revealed for other commercial forensic DNA software because the source code is not needed to assess the software programs’ reliability.

Jamieson’s general statement that a criminal defendant cannot “receive a diligent and fair verification of a DNA testing or analysis method” without the source codes does not address Perlin’s explanations of what the source code actually is and why it is not needed to test the methodology or reliability of TrueAllele’s analysis. Jamieson also generally states that access to the source code is the only way to consider the validity of the TrueAllele analysis in Chubbs’ case, but he does not explain how access to the source code would allow him to test the reliability of TrueAllele’s analysis. (See *Bridgestone, supra*, 7 Cal.App.4th at p. 1396 [“nowhere did [the real parties’ expert] describe with any precision how or why the [trade secret] formulas were a predicate to his ability to reach conclusions in the case”].)

Similarly, defense counsel generally states in her declaration that others have told her she needs to request the source codes and that there is “no way [she] can properly prepare to defend against the TrueAllele results without the source codes and pseudo source codes.” However, these general declarations do not address

why the source code is needed to review the reliability of the TrueAllele analysis, how the source code would be used to review the TrueAllele results, or what could be revealed by the source codes that would be useful to Chubbs' defense. Indeed, her declarations regarding TrueAllele's methodology, inferences, and reliance on the likelihood ratio rather than the random match probability illustrate her understanding of TrueAllele and thus undercut her argument that the source codes are necessary to understanding TrueAllele. This is particularly true in light of the fact that defense counsel received the patent documents regarding TrueAllele, numerous published articles regarding TrueAllele, and TrueAllele operating manuals. Further supporting the position that the source code is not necessary to an understanding of TrueAllele is Perlin's statement in his declaration that Cybergenetics discloses to opposing experts TrueAllele's methodology, how it applies its method to the data, and how the software works. The supplemental report prepared by Cybergenetics also explained the assumptions made by TrueAllele in its analysis. The vague statements by defense counsel and Jamieson do not describe in any way how the source code would have any bearing on the reliability of the analysis.

In his declaration, Perlin cited *Commonwealth v. Foley* (Pa. Super. 2012) 38 A.3d 882, in which the Superior Court of Pennsylvania held that the trial court did not abuse its discretion in admitting Perlin's DNA-related testimony. (*Id.* at p. 890.) Although this out-of-state case does not carry precedential weight, we agree with its conclusion that access to TrueAllele's source code is not necessary to judge the software's reliability. Similar to Chubbs' case, Perlin's estimate of the probability of a DNA match to the defendant in *Foley* was much higher (1 in 189 billion) than the estimates of the other scientific experts (1 in 13,000 and 1 in 23 million). (See *id.* at p. 887.) As pertinent here, the Pennsylvania court rejected the

defendant’s argument that Perlin’s testimony should have been excluded, reasoning that “scientists can validate the reliability of a computerized process even if the ‘source code’ underlying that process is not available to the public. TrueAllele is proprietary software; it would not be possible to market TrueAllele if it were available for free. [Citation.]” (*Id.* at p. 889.) The court further reasoned that TrueAllele “has been tested and validated in peer-reviewed studies,” citing several papers that “were published in peer-reviewed journals” and thus “reviewed by other scholars in the field.” (*Id.* at pp. 889-890.)

“[I]t is not enough that a trade secret might be useful to real parties.” (*Bridgestone, supra*, 7 Cal.App.4th at p. 1395.) Instead, “the party seeking discovery must make a prima facie, particularized showing that the information sought is relevant and necessary to the proof of, or defense against, a material element of one or more causes of action presented in the case, and that it is reasonable to conclude that the information sought is essential to a fair resolution of the lawsuit.” (*Id.* at p. 1393.) Chubbs has received extensive information regarding TrueAllele’s methodology and underlying assumptions, but he has not demonstrated how TrueAllele’s source code is necessary to his ability to test the reliability of its results. We therefore conclude that Chubbs has not made a prima facie showing of the particularized need for TrueAllele’s source code.

III. *Right to Confront Witnesses*

The trial court relied on Chubbs’ constitutional right to confrontation to conclude that the People were required to produce the source code. However, our state supreme court has stated, “invocation of the confrontation or compulsory process clauses in a claim involving pretrial discovery ‘is on weak footing’ because it is unclear whether or to what extent those constitutional guarantees

grant pretrial discovery rights to a defendant. [Citations.]” (*People v. Clark* (2011) 52 Cal.4th 856, 982-983; see also *People v. Hammon* (1997) 15 Cal.4th 1117, 1126 [examining United States Supreme Court precedent and concluding, “it is not at all clear ‘whether or to what extent the confrontation or compulsory process clauses of the Sixth Amendment grant pretrial discovery rights to the accused’”] (*Hammon*).)

“In [*Hammon*], the Supreme Court held the trial court properly quashed a subpoena duces tecum the defendant served on psychotherapists treating the alleged victim without first conducting an in camera review of the material. ‘[R]eject[ing the] defendant’s claim that pretrial access to such information was necessary to vindicate his federal constitutional rights to confront and cross-examine the complaining witness at trial or to receive a fair trial’ [citation], *Hammon* held ‘the trial court was not required, at the pretrial stage of the proceedings, to review or grant discovery of privileged information in the hands of third party psychotherapy providers’ [citation].” (*People v. Petronella* (2013) 218 Cal.App.4th 945, 958 (*Petronella*).)

Hammon reasoned that United States Supreme Court precedent addressing a criminal defendant’s right under the confrontation clause to information protected by state-created evidentiary privileges applied to a defendant’s trial rights, not pretrial rights. (*Hammon, supra*, 15 Cal.4th at pp. 1123-1127.) The court further reasoned that, “[w]hen a defendant proposes to impeach a critical prosecution witness with questions that call for privileged information, the trial court may be called upon . . . to balance the defendant’s need for cross-examination and the state policies the privilege is intended to serve. [Citation.] Before trial, the court typically will not have sufficient information to conduct this inquiry; hence, if pretrial disclosure is permitted, a serious risk arises that privileged material will be

disclosed unnecessarily.” (*Id.* at p. 1127.) The court thus “decline[d] to extend the defendant’s Sixth Amendment rights of confrontation and cross-examination to authorize pretrial disclosure of privileged information.” (*Id.* at p. 1128.)

Similarly, *Petronella* concluded that the trial court’s pretrial ruling upholding a privilege claim against the defendant’s subpoena did not violate the defendant’s constitutional rights to confrontation and due process. (*Petronella, supra*, 218 Cal.App.4th at pp. 958-959.) Pursuant to *Hammon* and *Petronella*, we conclude that Chubbs’ right to confrontation does not apply to pretrial discovery of the source code, which is privileged information.

Chubbs relies on the concurring and dissenting opinions in *Pennsylvania v. Ritchie* (1987) 480 U.S. 39 (*Ritchie*) to argue that the confrontation clause applies to pretrial discovery. However, *Hammon* specifically addressed *Ritchie* in concluding that the Sixth Amendment right to confrontation did not confer a right to discover privileged information before trial. (*Hammon, supra*, 15 Cal.4th at pp. 1125-1127.) We therefore conclude that the trial court abused its discretion in relying on the confrontation clause to order disclosure of the TrueAllele source codes.

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DISPOSITION

Let a peremptory writ of mandate issue directing respondent court to vacate its order compelling disclosure of the source code, and to issue a new order denying the motion to compel discovery.

NOT TO BE PUBLISHED IN THE OFFICIAL REPORTS

WILLHITE, J.

We concur:

EPSTEIN, P. J.

MANELLA, J.