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CUTCHEMBER v. PAYNE: APPROACHING PERFECTION IN PATERNITY TESTING

The plight of the illegitimate child has effected a multitude of court decisions and legislative responses over the years.¹ Much of the case law has resulted from paternity disputes to recover support payments for the child.²

1. *See, e.g.*, *Trimble v. Gordon*, 430 U.S. 762 (1977) (holding Illinois intestate succession statute unconstitutional because it discriminates on the basis of illegitimacy); *Mathews v. Lucas*, 427 U.S. 495 (1976) (Social Security Act's conditioning entitlement of survival benefits upon basis of dependency at time of death does not discriminate on basis of legitimacy); *Beatty v. Weinberger*, 478 F.2d 300 (5th Cir. 1973), *aff'd*, 418 U.S. 901 (1974) (illegitimate children may not be excluded from coverage of Social Security Act simply because they were born after the onset of insured parent's disability); *Jiminez v. Weinberger*, 417 U.S. 628 (1974) (fifth amendment equal protection clause is violated by discriminatory laws relating to legitimacy where no valid state interest exists); *New Jersey Welfare Rights Org. v. Cahill*, 411 U.S. 619 (1973) (New Jersey Welfare statute that discriminates on basis of legitimacy is unconstitutional); *Griffin v. Richardson*, 346 F. Supp. 1226 (D. Md.), *aff'd*, 409 U.S. 1069 (1972) (section of Social Security Act that discriminatorily reduced benefits to illegitimate children is unconstitutional); *Davis v. Richardson*, 342 F. Supp. 588 (D. Conn.) *summarily aff'd*, 409 U.S. 1069 (1972) (provision of Social Security act that favors benefits to legitimate children over dependent illegitimate children is unconstitutional); *Gomez v. Perez*, 409 U.S. 535 (1973) (judicially enforceable right of support to children, from their natural fathers, extends to illegitimate children); *Weber v. Aetna Casualty & Surety Co.*, 406 U.S. 164 (1972) (Louisiana workmen's compensation statute that denies equal benefits to dependant illegitimate children violates fourteenth amendment equal protection clause); *Labine v. Vincent*, 401 U.S. 532 (1971) (Louisiana intestate succession statute that precluded illegitimate children from claiming rights of legitimate children is constitutional so long as illegitimate children have right of inheritance); *Glonn v. American Guaranty & Liability Ins. Co.*, 391 U.S. 73 (1968) (mother of child cannot be precluded from wrongful death recovery merely because child was born out of wedlock); *Levy v. Louisiana*, 391 U.S. 68 (1968) (denial of recovery to illegitimate children for wrongful death of their mother, on whom they were dependant, constitutes invidious discrimination under fourteenth amendment equal protection clause).

2. *See, e.g.*, *Beaudoin v. Tilley*, 110 Misc. 2d 696, 442 N.Y.S.2d 914 (Fam. Ct. 1981) (husband entitled to blood grouping test in child support action instituted against him); *People v. Thompson*, 89 Cal. App. 3d 193, 152 Cal. Rptr. 478 (Ct. App. 1979) (results of blood grouping test inadmissible to rebut conclusive statutory presumption of paternity of child born during wedlock); *Magana v. Magana*, 576 S.W.2d 131 (Tex. Civ. App. 1978) (child conceived during marriage presumed legitimate; paternity rebuttable only by proof of nonaccess or impotency); *Dodd v. Henkel*, 84 Cal. App. 3d 604, 148 Cal. Rptr. 780 (Ct. App. 1978) (blood test results not establishing nonpaternity are inadmissible in paternity suit seeking support); *Hall v. Rosen*, 50 Ohio St. 2d 135, 363 N.E.2d 725 (1977) (natural father of child not liable for support if the mother contracts a marriage with another man before the child is born); *Hanson v. Hanson*, 311 Minn. 388, 249 N.W.2d 452 (1977) (in divorce action, wife denied support for minor child where husband provided blood test evidence that the child was not his); *Houghton v. Houghton*, 179 Neb. 275, 137 N.W.2d 861 (1965) (child born in wedlock presumed legitimate, but blood test evidence that proves nonpaternity is conclusive); *Groulx v. Groulx*, 98 N.H. 481, 103 A.2d 188 (1954) (expert testimony that failed to give unequivocal statement on

Several factors are relevant in determining whether an award of support should be granted. There are a number of judicially created presumptions and standards of proof that may determine the outcome of a paternity dispute.³ In addition, various issues pertaining to the admission of evidence are unique in the paternity context.⁴

issue of paternity is nonetheless admissible in support action); *Berry v. Chaplin*, 74 Cal. App. 2d 652, 169 P.2d 442 (Ct. App. 1946) (paternity of defendant upheld on appeal notwithstanding blood test evidence that excluded defendant as the father).

3. One commonly applied standard is the presumption of legitimacy. This is a presumption that a child born during wedlock is legitimate. The husband of the mother at the time of the child's birth is considered the father, regardless of whether the child was conceived before or after the marriage. See H. CLARK, *THE LAW OF DOMESTIC RELATIONS IN THE UNITED STATES* 172 (1968).

The presumption of legitimacy has its origin in English common law. Originally, the presumption was very strong and was considered conclusive proof of paternity. Most jurisdictions in the United States retain the presumption but do not apply it as rigorously as did the English courts. Instead, the presumption of legitimacy is rebuttable and the burden of proof is on the putative father to overcome the presumption. *Id.*

An additional concern with the rebuttable presumption is the weight of evidence required to overcome the presumption. Some jurisdictions place a very heavy burden on the defendant to rebut paternity. See, e.g., *In re Findlay*, 253 N.Y. 1, 170 N.E. 471 (1930). Other courts only require the defendant to rebut the presumption beyond a reasonable doubt. See, e.g., *Ventresco v. Bushey*, 159 Me 241, 191 A.2d 641 (1963); *Commonwealth v. Leary*, 345 Mass. 59, 185 N.E.2d 641 (1962). Finally, several jurisdictions require clear and convincing evidence to rebut the presumption of legitimacy. See, e.g., *State v. Mejia*, 97 Ariz. 215, 399 P.2d 116 (1965).

An analogous standard to the presumption of legitimacy is Lord Mansfield's Rule. This rule prohibits a spouse from testifying that he did not have sexual relations with his wife if such evidence would illegitimize a child. H. CLARK, *supra* at 169.

In a bastardy proceeding, the mother has the burden of proving that the defendant is the father of her child. A common defense in many paternity disputes is the doctrine of *exceptio plurium concubentium*. The doctrine stands for the proposition that if the mother of the child has sexual relations with a man other than the defendant at or near the time of conception, then the defendant cannot be found to be the father of the child. The mother fails to carry her burden of proof, therefore, if such evidence is admitted. *Id.* at 167.

4. One issue unique to the paternity dispute is the exhibiting of a child to a jury for the purpose of comparing its likeness to that of the putative father. Jurisdictions are split on the permissibility of the practice. Some courts totally prohibit the comparison of child and defendant. See, e.g., *State ex rel. Sarnowski v. Fox*, 19 Wis. 2d 68, 119 N.W.2d 451 (1963). Other jurisdictions unconditionally permit the likeness comparison, see, e.g., *State ex rel. Fitch v. Powers*, 75 S.D. 209, 62 N.W.2d 764 (1954), while some courts permit the comparison based on a limited number of characteristics. See, e.g., *Hall v. Centolanza*, 28 N.J. Super. 391, 101 A.2d 44 (1953). The better rule appears to be permitting the child to be viewed by the jury only if the child is old enough to have defined features. See, e.g., *Thomas v. United States*, 121 F.2d 905 (D.C. Cir. 1941).

Other evidence that has been held admissible as proof of paternity includes declarations of deceased family members and admissions of paternity by the father. H. CLARK, *supra* note 3, at 168.

The most controversial type of evidence in paternity proceedings involves the use of blood grouping tests. Traditionally, most jurisdictions have allowed the use of blood grouping tests

The most difficult issue arising in paternity litigation is the actual proof or disproof of paternity.⁵ The burden of proof in establishing paternity varies according to whether the proceeding is criminal or civil in nature.⁶ In a civil proceeding, the plaintiff must demonstrate by a preponderance of the *admissible* evidence that the defendant is the actual father of the child.⁷ In a criminal proceeding, the state must show beyond a reasonable doubt that the accused defendant is the father of the child.⁸

One of the most useful, yet controversial, evidentiary tools in resolving the issue of paternity is a blood test administered to the mother, child, and putative father.⁹ Every person's blood may be classified according to a number of qualities that are genetically determined by characteristics of their parents' blood.¹⁰ There are numerous systems for classifying blood.¹¹ Each

only to establish nonpaternity. This standard was fashioned to prevent the use of nonconclusive, and therefore potentially prejudicial, blood test results. Such results tend to show that the defendant was in the class of potential males that could have fathered the child. The potential class is usually very large and, therefore, the likelihood for prejudice very great. *Id.* at 169-70.

5. H. CLARK, *supra* note 3, at 168.

6. *Id.*

7. *Id.*

8. *Id.*

9. *Id.* at 169. Clark recognizes three specific issues that must be addressed with the use of blood tests. First, is the evidence of blood tests admissible in paternity suits? Second, may the parties to a suit be required to submit to the test against their will? Third, to what extent is admissible blood test evidence conclusive on the issue of paternity? *Id.*

10. Ross, *The Value of Blood Tests as Evidence in Paternity Cases*, 71 HARV. L. REV. 466-67 (1958); see also H. CLARK, *supra* note 3, at 169.

11. There are three systems of classification presently in common use: the ABO system, the MN system, and the Rh system. Each system involves different testing techniques to obtain a desired result. H. CLARK, *supra* note 3, at 169.

The ABO blood group system is used to classify a person's red blood cells and serum in one of six categories. The six categories are type O, type A₁, type A₂, type B, type A₁B, and type A₂B. The six classes of blood are referred to as the phenotype of the red blood cell. The phenotype of a particular child is determined by the phenotypes of its natural parents. Thus, if a given male does not possess one of the phenotypes that could have been passed on to the child, then he cannot be the child's father. American Medical Assoc., Comm. on Transfusion & Transplantation, and American Bar Assoc., Section on Family Law, Comm. on Standards for the Judicial Use of Scientific Evidence in the Ascertainment of Paternity, *Joint AMA-ABA Guidelines: Present Status of Serologic Testing in Problems of Disputed Parentage*, 10 FAM. L.Q. 247 (1976) [hereinafter cited as *Joint AMA-ABA Guidelines*].

The MN, or MNS, blood group system is based on the association of two pairs of genes that appear in the chromosomes of every person. The first pair of genes, known simply as M and N, combine to produce three variations, or phenotypes. These phenotypes are M, MN, and N. The second pair of genes, S and s, combine to form three phenotypes as well. The phenotypes are S, Ss and s. The association of the phenotypes from the first pair of genes with those from the second pair of genes produces nine possible phenotype combinations. The nine possible phenotypes, one of which is present in every individual, are MS, Ms, MSs, NS, Ns, NSS, MNS, MNs, and MNSs. *Joint AMA-ABA Guidelines, supra* at 267-68.

The phenotype of a particular person in the MN system is determined by applying four

person's blood possesses a particular type in each of the systems.¹² By determining the blood types of a mother and father it is possible to predict the blood types that a child could have and those the child would not have.¹³ Utilizing this procedure, it is also possible to predict the blood types that a putative father could have and would not have, if the blood types of the mother and the child are known.¹⁴

The usefulness of the blood test is limited, however, because it is not determinative of paternity, but can only establish nonpaternity.¹⁵ The test involves the comparison of the blood groupings of the mother and the child with those of the father. Applying the genetic principles governing the inheritance of blood groups, it may be possible to exclude a defendant as the child's father.¹⁶ If the putative father does not possess the necessary blood types that could produce the blood types identified in the child, then it is genetically impossible for that defendant to be the child's father. If the defendant does possess the compatible blood types, the test will show that he could be the child's father, but not that he is the father.¹⁷

Most courts have accordingly allowed the use of blood grouping tests only to establish that a putative father was not the true parent of a child.¹⁸ If the

antisera: anti-M, anti-N, anti-S, and anti-s. The antisera are human sera that contain antibodies that detect the presence of a particular gene. For example, anti-M will detect the presence of the M gene if the antibodies in the serum react with the blood being tested. If there is no reaction, then the gene is not present. The absence of a gene indicates that several phenotypes may also be eliminated from the class of nine possible phenotypes. For example, if the M gene is not detected by application of the anti-M antiserum, then the phenotypes MS, Ms, MSs, MNS, MNs, and MNSs may be eliminated as potential phenotypes of the blood being tested. *Id.*

The RH blood group system is the most complex of the three commonly used blood grouping tests. The RH system utilizes six different antisera to distinguish between twenty-eight different phenotypes, or blood type variations, within the system. The presence of a particular phenotype in a child indicates the potential phenotypes that the parents must possess. If a putative father does not possess one of the phenotypes that could have produced the phenotype that appears in the child, then he cannot be the true father of the child. *Joint AMA-ABA Guidelines, supra* at 265-67.

12. Ross, *supra* note 10, at 466. "Human blood may today be classified with reference to certain qualities which have been isolated by various tests. The blood of all persons has been found to exhibit one or another of these qualities." H. CLARK, *supra* note 3, at 169.

13. H. CLARK, *supra* note 3, at 169. See Ross, *supra* note 10, at 467.

14. H. CLARK, *supra* note 3, at 169.

15. *Id.* at 170.

16. *Id.* at 169. "The probability that the blood-grouping test will establish nonpaternity in a given case depends upon the blood types of the individuals involved, and increases if all three of the tests are used to the point where it is about fifty percent." *Id.* at 269-70.

17. *Id.* at 170.

18. Terasaki, *Resolution by HLA Testing of 1000 Paternity Cases Not Excluded by ABO Testing*, 16 J. FAM. L. 543 (1977-78). See, e.g., *Hurd v. States*, 125 Ga. App. 353, 187 S.E.2d 545 (Ct. App. 1972) (only exclusionary blood test evidence admissible); *Carpenter v. Goodall*,

blood tests failed to exclude the putative father in a particular case, then the courts have barred the admission of the blood test into evidence.¹⁹ The likelihood of excluding a nonfather will increase with the number of blood type characteristics tested.²⁰ Historically, courts have relied upon a series of tests known as the Landsteiner blood grouping tests.²¹ The cumulative probability of excluding a nonfather by utilizing the Landsteiner tests is slightly better than fifty percent.²² An exclusion ratio of fifty percent indi-

144 Ind. App. 134, 244 N.E.2d 673 (1969) (only exclusionary blood test evidence admissible); Foglio v. Foglio, 13 Misc. 2d 767, 176 N.Y.S.2d 43 (1958) (blood grouping tests conclusive on issue of nonpaternity); Anonymous v. Anonymous, 1 App. Div. 2d 312, 150 N.Y.S.2d 344 (1956) (only exclusionary blood test evidence admissible at trial); Groulx v. Groulx, 98 N.H. 481, 103 A.2d 188 (1954) (trial court did not err in admitting evidence that established nonpaternity in child support proceeding); Ross v. Marx, 24 N.J. Super. 25, 93 A.2d 597 (1952) (admissibility of evidence excluding paternity in bastardy proceeding recognized under New Jersey statute so providing); Jordan v. Davis, 143 Me. 185, 57 A.2d 209 (1948) (evidence admissible under statute providing for admissibility in bastardy cases where tests show defendant's nonpaternity). See also H. KRAUSE, CHILD SUPPORT IN AMERICA, 219-20 (1981); H. CLARK, *supra* note 3, at 170.

19. H. CLARK, *supra* note 3, at 170. See also H. KRAUSE, *supra* note 18, at 220. See, e.g., Simons v. Jorg, 375 So. 2d 288 (Fla. Dist. Ct. App. 1979) (blood tests cannot be used as evidence to establish paternity); Isaacson v. Obendorf, 99 Idaho 304, 581 P.2d 350 (1978) (evidence from blood test results that fail to establish nonpaternity are inadmissible); Dodd v. Henkel, 84 Cal. App. 3d 604, 148 Cal. Rptr. 780 (Ct. App. 1978) (scientifically reliable blood-grouping tests are inadmissible when used to establish possible paternity); State ex. rel. Isham v. Mullally, 15 Wis. 2d 249, 112 N.W.2d 701 (1961) (admission of blood test results that did not exclude defendant as father constituted reversible error); People v. Nichols, 341 Mich. 311, 67 N.W.2d 230 (1954) (blood test evidence that failed to establish nonpaternity in bastardy proceeding was inadmissible); Miller v. Domanski, 26 N.J. Super. 316, 97 A.2d 641 (1953) (any evidence relating to blood tests that do not exclude paternity is inadmissible); Dunbar v. Dunbar, 191 Misc. 236, 77 N.Y.S.2d 586 (1948) (nonexclusionary blood test evidence inadmissible in child support dispute). But see County of Fresno v. Superior Court, 92 Cal. App. 3d 133, 154 Cal. Rptr. 660 (Ct. App. 1979) (blood grouping test that showed 47% probability that defendant was child's father was admissible); Stegemann v. Faulk, 571 S.W.2d 697 (Mo. Ct. App. 1978) (results of blood grouping test that established that defendant in paternity suit was among biologically possible fathers was admissible); Livermore v. Livermore, 233 Iowa 1155, 11 N.W.2d 389 (1943) (court assumed that blood test evidence that showed defendant was possible father was admissible).

20. H. CLARK, *supra* note 3, at 169-70; Joint AMA-ABA Guidelines, *supra* note 11, at 258; See also J.B. v. A.F., 92 Wis. 2d 696, 703, 285 N.W.2d 880, 882-83 (Ct. App. 1979).

21. Crain v. Crain, 104 Idaho 666, 662 P.2d 538, 543 (1983); Cramer v. Morrison, 88 Cal. App. 3d 873, 879, 153 Cal. Rptr. 865, 869 (Ct. App. 1979). The Landsteiner tests are a series of three tests performed on the red blood cells. See H. CLARK, *supra* note 3, at 169. The three factors tested are the ABO, Rh-Hr, and MNSs systems of the red blood cells. Cutchember v. Payne, 466 A.2d 1240 (D.C. App. 1983); see MCCORMICK'S HANDBOOK OF THE LAW OF EVIDENCE § 211 (E. Cleary ed. 1972) [hereinafter cited as MCCORMICK ON EVIDENCE]; see generally Polesky & Krause, *Blood Typing in Disputed Paternity Cases—Capabilities of American Laboratories*, 10 FAM. L.Q. 287, 291 (1976); Annot., 46 A.L.R.2d 1000, 1003 (1956).

22. Joint AMA-ABA Guidelines, *supra* note 11, at 258. The cumulative probability of exclusion of nonfathers using the ABO, Rh-Hr, and MNSs systems is 54.50% for black males, 56.63% for white males, and 52.0% for Japanese males. Use of an additional system that is

cates that only half of the male population can scientifically be eliminated as a potential father. There is an inherent risk that a jury may give much greater weight to such statistical evidence than it should be accorded.²³ Admission of evidence that a defendant failed to be excluded by a blood test may unduly prejudice his case.

Due to the low probability of excluding nonfathers under traditional blood testing procedures, many jurisdictions have enacted statutes that effectively codify the common law rule that permits only exclusionary blood test results into evidence.²⁴ These statutes protect defendants from the improper and prejudicial inference a jury could draw from the fact that a defendant is not excluded as a potential father of a child.²⁵ If a defendant was not excluded as a potential father, that fact, coupled with the hostile testimony of the mother, could be sufficient to sway the jury in the mother's favor.²⁶ This result could occur even though the tests demonstrated that the defendant was only one of almost half the male population who could have fathered the child. Exclusionary blood test statutes, therefore, serve to filter out prejudicial evidence and to promote the use of a beneficial scientific evidentiary tool.

Most of the exclusionary blood test statutes were enacted when the standard paternity test was the Landsteiner series of red blood cell grouping

sometimes included in the Landsteiner series, the Kell-Cellano blood test, only raises the probability of exclusion slightly for two of the groups and not at all for the third group (54.72% for black males, 58.17% for white males, and 52.0% for Japanese males). *Id.*

23. For example, where the putative father is a white male, the cumulative probability of exclusion of nonfathers for that class under the three basic tests is 56.63%. *Joint AMA-ABA Guidelines, supra* note 11, at 258. If a putative father is not excluded, then he is in the remaining 43.3% of white males who could be the child's father. In a situation where the mother of the child has implicated no other potential fathers, the jury could, and most likely would, take the quantitative failure of the blood tests to exclude paternity as conclusive of the putative father's paternity of the child. The quantitative evidence would be given much greater weight than it is entitled to, given the fact that nearly half of the entire white male population was in the class of potential fathers.

24. *See, e.g.,* CAL. EVID. CODE § 895 (West 1966) (amended 1981); D.C. CODE ANN. § 16-2343 (1981); IDAHO CODE § 7-1115 (1969) (repealed 1982); MICH. COMP. LAWS § 722.716(d) (1956) (amended 1982); WIS. STAT. ANN. § 885-23 (West 1965) (amended 1980). *See generally* H. CLARK, *supra* note 3, at 170 n.76 (listing exclusionary blood test statutes of 26 jurisdictions). Significantly, those jurisdictions that have amended or repealed exclusionary blood test statutes have done so to include high probability human leukocyte antigen test results. *See, e.g.,* N.Y. FAM. CT. ACT § 532(a) (McKinney 1983) (authorizing the admission into evidence of human leukocyte antigen tissue test results).

25. H. CLARK, *supra* note 3, at 170.

26. Harris, *Some Observations on the Un-Uniform Act on Blood Test to Determine Paternity*, 9 VILL. L. REV. 59, 70-72 (1963). "[S]ince juries are willing to find paternity even where the tests dictate the contrary, they will be even more likely to find paternity where they have for consideration test results that indicate merely the possibility of paternity." *Id.* at 71. *See also* *People v. Nichols*, 341 Mich. 311, 314, 67 N.W.2d 230, 232 (1954) (admission of blood tests to establish paternity is prejudicial error).

tests.²⁷ The statutes were drafted to address the inadmissibility of nonexclusionary results from these standard blood tests. Recent scientific advances have increased the mean probability for excluding a nonfather significantly beyond the fifty percent exclusion ratio of the Landsteiner blood tests.²⁸ The statutory purpose of preventing the admission of statistically prejudicial evidence, therefore, is no longer an overwhelming policy interest.

One of the recent advances in paternity testing, the human leukocyte antigen test (HLA test), has the capability of excluding between seventy-eight and eighty percent of all nonfathers.²⁹ The exclusion ratio is even more impressive when the HLA test is conducted in conjunction with several of the more conventional paternity tests. One study, a joint report of the American Medical Association (AMA) and the American Bar Association (ABA), recommends the use of a series of seven serologic tests that offer a cumulative probability for excluding over ninety-one percent of all nonfathers.³⁰ The addition of the HLA test to the other six systems makes this exclusion ratio possible. Without the HLA test the cumulative exclusion ratio ranges between only sixty-three to seventy-three percent.³¹

Although the other six serologic tests recommended by the AMA-ABA study are blood tests, the HLA test is not. The blood is a convenient medium for conducting the HLA test, but the test may be performed on other body tissues.³² Traditional blood grouping tests are performed on the red blood cells. The HLA test, however, identifies and types antigen markers

27. See *Cutchember v. Payne*, 466 A.2d 1240 (D.C. App. 1983); *Crain v. Crain*, 104 Idaho 666, 671, 662 P.2d 538, 543 (1983); *Cramer v. Morrison*, 88 Cal. App. 3d 873, 880-81, 153 Cal. Rptr. 865, 869 (Ct. App. 1979). *Phillips v. Jackson*, 615 P.2d 1228, 1233 (Utah 1980).

28. See *Crain v. Crain*, 104 Idaho at 666, 662 P.2d at 542-43; *J.B. v. A.F.*, 92 Wis. 2d at 702-03, 285 N.W.2d at 882-83; *Joint AMA-ABA Guidelines*, *supra* note 11, at 257-58; Shaw & Kass, *Illegitimacy, Child Support, and Paternity Testing*, 13 HOUS. L. REV. 41, 59 (1975).

29. *Joint AMA-ABA Guidelines*, *supra* note 11, at 257, table 2. The HLA test involves the identification and typing of antigen markers that appear in white blood cells and other body tissues. The HLA test is a tissue typing test to determine the genetic components, or chromosomal makeup, of a person. There are 23 pairs of chromosomes in the human cell. Each chromosome carries genetic markers known as HLA antigens. An antigen stimulates antibody production if introduced to a foreign body. Antigens are produced by genes and are genetically determined in the individual. Antigens are scientifically identifiable and may be classified according to their characteristics. By identifying the antigens of a child and mother, the antigen markers of the father may be determined and the father may be identified with relative certainty. Such a determination is possible because usually only one person in a thousand has a similar HLA type. Thus, if the putative father and the child have the same HLA type, it is likely that the putative father is actually the father. *Phillips v. Jackson*, 615 P.2d 1228, 1230-31 (Utah 1980).

30. *Joint AMA-ABA Guidelines*, *supra* note 11, at 258, table 3.

31. *Id.*

32. *Cutchember v. Payne*, 466 A.2d 1240, 1241 (D.C. 1983); *Crain v. Crain*, 104 Idaho at

found in the white blood cells and other tissues of the body.³³ The HLA test need not be performed on the white blood cells, but the white blood cells offer the most convenient access for determining a person's antigen markers.³⁴

An important question is whether the use of HLA test results are precluded by statutes or case law prohibiting the admission of nonexclusionary blood test results into evidence. Specifically, should the same principle of evidentiary exclusion that is applied to blood test results based on red blood cell groupings also be applied to HLA test results that are not based on red blood cell groupings.

An additional consideration that has arisen with the use of the HLA test is its reliability given the fact that it is based on a relatively recent scientific advance.³⁵ The policy interests that remain to be protected include the reliability of the expert offering the evidence, the reliability of the method of testing, and the general acceptance and reliability of the test itself.³⁶ The widespread use of traditional blood grouping tests allows their veracity to be tested in court by the advocacy process. The scientific principles upon which traditional blood tests are based may be easily understood and challenged by the bar and the bench.³⁷ The HLA test, however, does not offer such a broad range of coverage and does not enjoy familiarity with legal practitioners or jurists.³⁸ The HLA test has only recently been applied to paternity testing and there is little case law to guide the courts in their determination of the admissibility of HLA evidence.³⁹

668, 662 P.2d at 540; *Phillips v. Jackson*, 615 P.2d at 1223; *see also* *J.B. v. A.F.*, 92 Wis. 2d at 699-700, 285 N.W.2d at 882.

33. *See supra* note 29.

34. *See* *Cutchember v. Payne*, 466 A.2d 1240, 1242 (D.C. 1983); *Crain v. Crain*, 104 Idaho at 668, 662 P.2d at 540; *Ahmad v. Ahmad*, 110 Wash. Daily L. Rep. 1173, 1177 (May 25, 1982).

35. *Tice v. Richardson*, 7 Kan. App. 2d 509, 510-13, 644 P.2d 490, 491-93 (Kan. Ct. App. 1982) (opinion of expert witness based on HLA test evidence is admissible at trial); *Phillips v. Jackson*, 615 P.2d at 1233-34; *Cramer v. Morrison*, 88 Cal. App. 3d at 886, 153 Cal. Rptr. at 872-74. *See* *J.B. v. A.F.*, 92 Wis. 2d at 702, 285 N.W.2d at 884 (HLA tissue typing tests not admissible to establish paternity in light of Wisconsin exclusionary blood test statute).

36. *Tice v. Richardson*, 7 Kan. App. 2d at 514, 644 P.2d at 492; *Phillips v. Jackson*, 615 P.2d at 1235; *Cramer v. Morrison*, 88 Cal. App. 3d at 885-86, 153 Cal. Rptr. at 873.

37. *See generally* *Harris*, *supra* note 26.

38. *H. KRAUSE*, *supra* note 18, at 214; *Tice v. Richardson*, 7 Kan. App. 2d at 512, 644 P.2d at 493.

39. *Crain v. Crain*, 104 Idaho at 666, 662 P.2d at 543 (HLA testing not in use as late as 1975); *Phillips v. Jackson*, 615 P.2d at 1232 (only two appellate court cases have recognized admissibility of HLA tests); *Commonwealth v. Blazo*, 10 Mass. App. 324, 325-26, 406 N.E.2d 1323, 1326 (trial judge justified in excluding HLA results because no reliable information available at time of decision); *Cramer v. Morrison*, 88 Cal. App. 3d at 888, 153 Cal. Rptr. at 873

In a recent decision, *Cutchember v. Payne*,⁴⁰ the District of Columbia Court of Appeals was confronted with the issue of whether the HLA test is a blood test and, therefore, prohibited by the District of Columbia's exclusionary blood test statute.⁴¹ The court also addressed whether the HLA test results were admissible as affirmative proof of paternity, notwithstanding the applicability of the District's exclusionary blood test statute.⁴² Holding that an HLA test is not a blood test within the meaning of the District of Columbia's exclusionary blood test statute,⁴³ the court ruled that the HLA test results were improperly excluded from evidence.⁴⁴ The court's holding was one of several recent decisions throughout the country that have allowed the use of HLA test results to prove paternity.

This Note will examine recent court decisions that have accepted the HLA test as reliable proof of paternity. Particular emphasis will be placed on the impact of exclusionary blood test statutes in light of new scientific advances. An analysis of *Cutchember* will suggest that the court properly admitted HLA test results notwithstanding the provisions of the District of Columbia's exclusionary blood test statute. The Note will conclude that the admission of HLA test results to prove paternity is sound judicial policy, but that more guidance is necessary for courts to properly administer the new testing procedure.

I. THE EXCLUSIONARY BLOOD TEST RULE

A. *The Trend Toward Instituting a New Standard for Paternity Testing: The Use of Scientific Evidence to Prove Paternity.*

Section 16-2343 of the District of Columbia Code allows all blood test results in paternity suits to be admitted into evidence, unless the respondent to the action objects to the admission of the results.⁴⁵ The practical effect of

(appellate decision accepting HLA test results would be premature). See Terasaki, *supra* note 18, at 543.

40. 466 A.2d 1240 (D.C. 1983).

41. D.C. CODE ANN. § 16-2343 (1981). Section 16-2343 provides in pertinent part:
Blood Tests

When it is relevant to an action over which the Division has jurisdiction under section 11-1101, the court may direct that the child, respondent and the other parent if available submit to one or more blood tests to determine whether or not the respondent can be excluded as being the father or mother, as the case may be, of the child, but the results of the test may be admitted as evidence only in cases where the respondent does not object to its admissibility.

Id.

42. *Cutchember*, 466 A.2d at 1242.

43. See *supra* note 41.

44. *Cutchember*, 466 A.2d at 1241.

45. See *supra* note 41.

the statute is that a putative father will only allow exclusionary blood test results into evidence—results that prove he could not have fathered the child.⁴⁶ Section 16-2343 is premised on the notion that a judge should not permit the introduction of evidence at trial that will unfairly prejudice a party in the case.

In *Ahmad v. Ahmad*,⁴⁷ the only previously published District of Columbia case to address the admissibility of HLA test results, the court confronted the same exclusionary blood test statute involved in *Cutchember*.⁴⁸ *Ahmad* dealt with a putative father's objection to the admission of HLA test results. The defendant father contended that section 16-2343 allowed him to exclude blood test results and that HLA test results were included within this prohibition.⁴⁹ The District of Columbia's Corporation Counsel argued, on behalf of the plaintiff mother, that an HLA test is not a blood test within the meaning of section 16-2343.

The court in *Ahmad* observed that Congress had no knowledge of HLA testing at the time that section 16-2343 was enacted.⁵⁰ HLA test results are much more specific and, therefore, more probative on the issue of paternity than the standard blood tests that existed when Congress passed section 16-2343. HLA test results can exclude a much larger percentage of falsely accused fathers than traditional blood grouping tests.⁵¹ The court noted that this higher exclusion factor is due to the fact that the HLA test takes into account a far greater number of genetically determined characteristics than

46. See *Ahmad v. Ahmad*, 110 Wash. Daily L. Rep. 1173, 1177 (May 25, 1982). Two facets of the District of Columbia's exclusionary blood test statute are clear: "(1) the 'blood tests' [meaning blood grouping tests] referred to in the statute are admissible for the limited purpose of exclusion of paternity; (2) since any other use of the results is of minimal probative value they can be made inadmissible at the option of the alleged father to avoid potential prejudice." *Id.*

47. 110 Wash. Daily L. Rep. 1173.

48. D.C. CODE ANN. § 16-2343 (1981), *supra* note 41.

49. *Ahmad*, 110 Wash. Daily L. Rep. at 1177. The defendant not only wanted to exclude the test results, but he moved the court to purge the record of all references to the HLA results and to enjoin the plaintiff from mentioning their existence. *Id.*

50. *Id.* at 1178. The court ruled that it could not find that § 16-2343, "either by its language referring to exclusion of paternity, or by contemplation of the Congress that enacted it at a time when HLA testing was unknown, can properly be used, at the whim of a respondent who does not like the highly probative results, to exclude those results from an evidentiary search for the truth." *Id.* The court noted that the defendant could exclude the results of blood grouping tests that failed to exclude him as the father, but § 16-2343 could not exclude HLA results from evidence. *Id.*

51. *Id.* at 1177. The HLA test cannot conclusively establish paternity, but the test can show the probability that a particular male included by the results is the biological father of a given child. This determination is based upon the frequency of the putative father's HLA genetic marker in the general population. *Id.*

the blood grouping tests.⁵² The HLA test is different from traditional blood tests because it is not based on blood typing techniques. Instead, it tests genetic markers that appear in blood cells and many other tissues of the body.⁵³ The court concluded that HLA tissue tests are not blood tests within the meaning of section 16-2343 and, therefore, cannot be excluded from evidence.⁵⁴

Several other jurisdictions have addressed the issue of whether an exclusionary blood test statute prohibits the admission of HLA test results into evidence. The California Court of Appeals for the Fourth District, in *Cramer v. Morrison*,⁵⁵ was the first appellate court to address the statutory exclusion issue. *Cramer* involved a mother's paternity suit against the alleged father of her child to obtain support payments for the child.⁵⁶ The defendant father resisted the mother's charge and argued that she had engaged in sexual relations with other men during the likely period of conception.⁵⁷ The defendant claimed that the mother could not prove that he was the father of the child. The mother attempted to introduce HLA test evidence to prove that the defendant was the child's father. The trial court, however, upheld the defendant's motion in limine to exclude the results of the HLA paternity test.⁵⁸

The central issue on appeal in *Cramer* was whether HLA test results were admissible to prove paternity. The defendant claimed that the trial court's

52. *Id.* Due to their extreme accuracy, HLA test results can exclude a much larger number of falsely accused fathers than would be excluded by traditional blood grouping tests. *Id.*

53. *Id.* The HLA test is of recent origin and was developed to provide a much more precise matching of tissue types in organ transplants than was possible with standard blood grouping tests. Although HLA tests are done on white blood cells for convenience and safety, the test could be performed on other types of cells, such as liver cells. The HLA test can determine a far greater number of genetic characteristics than can traditional blood grouping tests. *Id.*

54. *Id.* at 1178.

55. 88 Cal. App. 3d 873, 153 Cal. Rptr. 865 (Ct. App. 1979).

56. *Id.* at 878-79, 153 Cal. Rptr. at 868. The defendant was named as the father of the child at the time of birth and the child has used his name since then. The defendant never admitted parentage, however, nor did he act as a father to the child. The mother claimed that she had sexual relations with the defendant at the time of conception and that she had not been sexually involved with anyone else at the time. *Id.*

57. *Id.* The defendant testified that he was away in the military during part of the time conception could have occurred. He also disputed the mother's testimony as to when she first missed a menstrual period. Significantly, the defendant did not deny having intercourse with the mother. *Id.*

58. *Id.* at 878, 153 Cal. Rptr. at 867-68. The trial court ruled that although the HLA test evidence was apparently reliable, California law prevented its admission into evidence. The court noted that there was a danger that statistical evidence of this nature might have a prejudicial effect on the jury. *Id.*

ruling was correct because California's exclusionary blood test statute⁵⁹ precluded admission of the HLA results.⁶⁰ The defendant also asserted that the prejudicial effect of the statistical results outweighed the probative value of the results in evidence. On this point, the court of appeals disagreed. Notwithstanding the effect of the exclusionary statute, the court found the HLA results highly probative and relevant as proof of paternity. The court found the results were extremely persuasive for demonstrating that the defendant was the child's father because they revealed a very high probability of paternity.⁶¹

In *Cramer*, the court reviewed the legislative history of the Uniform Act on Blood Tests to Determine Paternity (Uniform Act).⁶² The California version of the statute allows admission of blood tests only to establish nonpaternity. Significantly, the California legislature omitted that part of the Uniform Act that allowed the admission of blood test results to establish paternity.⁶³ The defendant in *Cramer* argued that the omission of the affirmative proof provision of the Uniform Act indicated a legislative intent to prohibit the admission into evidence of results of tests such as the HLA test.⁶⁴ The court disagreed and stated that the drafters of the Uniform Act never anticipated a test such as the HLA test at the time the model act was drafted.⁶⁵

The drafters of the Uniform Act employed language that addressed the use of blood typing tests. At the time the Uniform Act was adopted in California, the only standard blood typing tests were the Landsteiner series of

59. CAL. EVID. CODE § 895 (West 1965) (amended 1981). Section 895 provides:

If the court finds that the conclusions of all the experts, as disclosed by the evidence based upon the tests, are that the alleged father is not the father of the child, the question of paternity shall be resolved accordingly. If the experts disagree in their findings or conclusions, the question shall be submitted upon all the evidence.

Id.

60. California adopted the Uniform Act on Blood Tests to Determine Paternity in 1953. Section 895 of the California evidence code is part of that provision. *Id.* At the time that California enacted § 895, the legislature specifically omitted that part of the Uniform Act on Blood Tests to Determine Paternity that allowed the use of blood tests to show the possibility of paternity. *Cramer*, 88 Cal. App. 3d at 880, 153 Cal. Rptr. at 868-69.

61. 88 Cal. App. at 880, 153 Cal. Rptr. at 868. The results indicated a 98.3% probability that the defendant was the child's father. *Id.* at 880, 153 Cal. Rptr. at 867.

62. The Uniform Act on Blood Tests to Determine Paternity is codified in California at CAL. EVID. CODE §§ 890-897 (West 1965) (amended 1981). *See supra* notes 59-60.

63. *See supra* note 60.

64. *Cramer*, 88 Cal. App. 3d at 880, 153 Cal. Rptr. at 868-69. *See supra* note 60.

65. *Id.* at 880, 153 Cal. Rptr. at 869. The terminology that the Uniform Act uses to refer to blood tests is "blood types." The same terminology is commonly applied to the Landsteiner series of red blood cell grouping tests, and is employed in the omitted part of the model act. *Id.*

blood grouping tests.⁶⁶ The court reasoned that California's refusal to adopt the affirmative proof provision of the Uniform Act, therefore, referred only to the exclusion of the Landsteiner series of red blood cell tests.⁶⁷

The court, in *Cramer*, also noted that commentators have addressed the omission of the affirmative proof provision from the California version of the Uniform Act. Commentators have indicated that the Uniform Act only refers to the Landsteiner classification of blood groups.⁶⁸ The Landsteiner tests involve blood typing, whereas the HLA test involves tissue typing of the white blood cells.⁶⁹ The HLA test, therefore, is not included in the Landsteiner series of tests. The disparity between the two testing procedures is reinforced by the fact that HLA test results yield significantly higher probabilities of paternity than do the Landsteiner blood grouping tests.⁷⁰ The court concluded that the omission of the affirmative proof provision of the Uniform Act from the California version of that act does not preclude the admission of HLA test results to prove paternity.⁷¹

The second statutory challenge in *Cramer* to the admissibility of HLA test results involved California's version of the Uniform Parentage Act.⁷² In 1975, California enacted the Uniform Parentage Act (UPA), but omitted the section of the act that allowed the use of blood test evidence to prove paternity.⁷³ The defendant argued that this omission was an expression of the legislature's intent to preclude the use of all blood tests to prove paternity.⁷⁴

66. *Id.* See *supra* note 65.

67. *Id.* at 881, 153 Cal. Rptr. at 869-70. The court also noted that persuasive expert testimony was given to the effect that the HLA test is entirely different from blood grouping tests. The HLA test involves tissue typing of the white blood cells and produces far higher probabilities of paternity than blood grouping tests. *Id.*

68. *Id.* (citing B. WITKIN, CALIFORNIA EVIDENCE (2d ed.) § 657, at 618 (the Landsteiner test is the widely recognized test for determining nonpaternity); B. JEFFERSON, CALIFORNIA EVIDENCE BENCHBOOK (1972) § 20.6, at 244 (blood grouping tests are not admissible to establish paternity, only to establish nonpaternity)).

69. *Cramer*, 88 Cal. App. 3d at 881-82, 153 Cal. Rptr. at 870 (construing with approval, expert testimony of Dr. Paul Teraski of the UCLA School of Medicine).

70. *Id.* at 884-85, 153 Cal. Rptr. at 872. The court noted that there was no requirement in the law that scientific evidence could be admitted only if it produced a 100% degree of accuracy. *Id.*

71. *Id.* at 882, 153 Cal. Rptr. at 870.

72. CAL. CIV. CODE §§ 7000-7021 (West 1983).

73. The omitted section provided in pertinent part:

Evidence relating to paternity may include:

...

... (3) blood test results, weighted in accordance with evidence, if available, of the statistical probability of the alleged father's paternity.

UNIF. PARENTAGE ACT § 12, 9A U.P.A. 602 (1979).

74. *Cramer*, 88 Cal. App. 3d at 882-83, 153 Cal. Rptr. at 870-71. The defendant claimed that since the legislature left out the provision of the model act that allowed the use of blood

The court, in rejecting this view, explained that the legislature omitted the blood test provision from the California version of the model act because the evidentiary problems of paternity were already addressed by California's evidence code and several other statutes, as well as case law.⁷⁵

The court further noted that even if the omission of the blood test provision was meant to exclude blood test evidence as proof of paternity, the omission would only refer to the standard Landsteiner blood tests.⁷⁶ California's version of the UPA was enacted in 1975. At that time, the Landsteiner tests were the standard tests in use for paternity testing. HLA tests were not in use at the time for paternity testing in California.⁷⁷ The legislature, therefore, could not have intended to prohibit the use of HLA tests because it had no knowledge of the use of HLA tests for paternity testing. Furthermore, California case law that has prohibited the use of blood tests to prove paternity, based on the omission in the UPA, has specifically referred to the Landsteiner series of blood tests.⁷⁸ The court concluded that California law does not prohibit the use of HLA test results.⁷⁹

A secondary issue on appeal in *Cramer* was whether there was an abuse of discretion by the trial judge in ruling that the prejudicial effect of the statistical results of the HLA test outweighed the probative value of the HLA results.⁸⁰ Notwithstanding the possibility of an erroneous scientific foundation for the statistical results, the appellate court concluded that the exclusion of the HLA results, on the grounds of undue prejudice to the jury, constituted an abuse of discretion.⁸¹ The appellate court noted that HLA statistical results are based upon reliable data and sound scientific techniques. The re-

test evidence as proof of paternity, it intended to preclude the use of blood tests of any kind for this purpose. *Id.*

75. *Id.* at 883, 153 Cal. Rptr. at 871. The court observed that:

Comparison of the model act with California's statute reveals . . . that the Legislature left out the entire model code section dealing with evidence relating to paternity. The omitted section permits the inclusion of evidence of sexual intercourse, duration of pregnancy, other medical and anthropological evidence, as well as blood test evidence, to prove paternity.

Id. The court noted that the defendant's interpretation of the legislature's omission would require it to exclude all these other types of evidence, in addition to blood test results, from paternity suits. *Id.*

76. *Id.*

77. *Id.* at n.18 (citing Lee, *Current Status of Paternity Testing*, 9 FAM. L.Q. 615, 624 (1975); Polesky & Krause, *supra* note 21, at 291).

78. *Id.* See *Dodd v. Henkel*, 84 Cal. App. 3d 604, 148 Cal. Rptr. 780 (Cal. Ct. App. 1978) (reference to the inadmissibility of inclusive blood test results under Uniform Parentage Act assumes only the Landsteiner series of blood tests).

79. *Cramer*, 88 Cal. App. 3d at 883, 153 Cal. Rptr. at 871.

80. *Id.* at 884, 153 Cal. Rptr. at 871.

81. *Id.*

sults are highly probative on the issue of paternity and are not unduly prejudicial to a putative father.⁸² Although the HLA results were not 100% accurate, the test evidence showed a 98.3% probability that the defendant was the child's father. The court observed that there was no requirement in California law that scientific test evidence must be 100% accurate before it is admissible at trial.⁸³ The *Cramer* court concluded that the HLA test evidence was not prejudicial and the trial court, therefore, had erred in excluding the results.⁸⁴

A year and a half after the *Cramer* decision, the Supreme Court of Utah, in *Phillips v. Jackson*,⁸⁵ confronted a factual situation similar to that in *Cramer*. *Phillips* involved a paternity action instituted by the plaintiff mother to recover support payments for her child born out of wedlock.⁸⁶ The trial court held for the mother based on HLA blood test results and ordered the father to make support payments for the child. The father appealed the decision of the trial court. The central issue on appeal was whether the trial court's acceptance of HLA test results into evidence was an abuse of the trial court's discretion.⁸⁷ Significantly, the results of the HLA test established to a probability of 97% that the defendant was the child's father.⁸⁸

There were three issues on appeal in *Phillips*. The first issue involved the admissibility of HLA test results given the existence of a Utah statute that permitted the use of blood tests for the purpose of *excluding* paternity.⁸⁹

82. *Id.* at 884, 153 Cal. Rptr. at 871. The court observed, "The HLA test interpretations are not based on arbitrarily assigned numerical probability values or on a statistical theory unsupported by the evidence. Instead, they are based upon objectively ascertainable data and a statistical theory based upon scientific research and experiment." *Id.*

83. *Id.* at 884, 153 Cal. Rptr. at 872. *See supra* note 82.

84. *Id.* at 885, 153 Cal. Rptr. at 872.

Paternity is now determined by the court on extraordinarily flimsy evidence for which there is no quantitative measure of value. . . . Rather than relying on such evidence, the law should not ignore readily obtainable genetic evidence that can provide a precise and objective basis for deciding such an important question as the paternity of a child.

Id. (quoting Beautyman, *Paternity Actions—A Matter of Opinion or a Trial of the Blood?*, J. LEGAL MED. 17, 20-21 (April 1976)).

85. 615 P.2d 1228 (Utah 1980).

86. *Id.* at 1230.

87. *Id.* Defendant also contended that the trial court's finding of paternity was not supported by the evidence and that the effect of the trial court's evidentiary rulings constituted reversible error. *Id.*

88. *Id.*

89. UTAH CODE ANN. § 78-45a-10 (1965). Section 78-45a-10 provides:

Effect of test results.—If the court finds that the conclusions of all experts, as disclosed by the evidence based upon the tests, are that the alleged father is not the father of the child, the question of paternity shall be resolved accordingly. If the

The other two issues pertained to the reliability of HLA tests generally and the accuracy of the particular testing procedures used in the present case. The court reversed and remanded the case based on the two latter issues. The court held that a proper foundation had not been laid for admission of the HLA test results.⁹⁰

The threshold issue on appeal involved Utah's enactment of the Uniform Act on Paternity.⁹¹ The Utah statute provided for the use of blood tests to exclude paternity, but also allowed the use of blood tests, within the discretion of the trial judge, to show a probability of paternity.⁹² Although the Utah statute was not as restrictive as the California statute challenged in *Cramer*, the *Phillips* court's reasoning was persuasive on the issue of statutes that purport to limit the admissibility of HLA test results.

The *Phillips* court enunciated two reasons for allowing the admission of HLA test results in light of Utah's otherwise restrictive blood test statute.⁹³ First, Utah's statute was intended to apply to blood tests based on red blood cell groupings and was not enacted with any reference to HLA tests. HLA tests are of an entirely different nature than conventional blood tests and, therefore, cannot be properly characterized as blood tests.⁹⁴ The court observed that the HLA test is performed on antigens, which incidentally appear in the blood, but may be located in most tissues of the body.⁹⁵ The HLA test is not dependent on red blood cell groupings and, therefore, is not a blood test within the purview of Utah's version of the Uniform Act on Paternity. The court also noted that even if Utah's statute does apply, admission of all test results remains within the discretion of the court.⁹⁶

experts disagree in their findings or conclusions, the question shall be submitted upon all the evidence. If the experts conclude that the blood tests show the possibility of the alleged father's paternity, admission of this evidence is within the discretion of the court, depending upon the infrequency of the blood type.

Id.

90. *Phillips*, 615 P.2d at 1230. The court stated: "We reverse and remand for further proceedings because it was prejudicial error for the trial court to admit the HLA test results without a proper foundation as to the reliability of both HLA tests in general and the particular test in this case." *Id.*

91. *Id.* at 1233. The Uniform Act on Paternity is codified at UTAH CODE ANN. §§ 78-45a-1 to 78-45a-17 (1965). The Act authorizes the use of blood tests to exclude paternity. *Phillips*, 615 P.2d at 1233.

92. *Phillips*, 615 P.2d at 1233. See *supra* note 82.

93. *Id.* The court noted that the HLA test results must also meet the appropriate criteria for establishing reliability of the evidence. *Id.*

94. *Id.* (citing *Cramer*, 88 Cal. App. 3d at 873, 153 Cal. Rptr. at 865).

95. *Id.* (citing *J.B. v. A.F.*, 92 Wis. 2d at 698, 285 N.W.2d at 882).

96. *Id.* The court observed that, "[s]ince red blood cell group tests produce relatively lower probabilities in affirmatively identifying paternity than the probabilities claimed for HLA tests, the latter, if otherwise admissible, should also be admissible." *Id.*

Recently, in *Crain v. Crain*,⁹⁷ the Supreme Court of Idaho addressed the issue of the admissibility of HLA test results in light of a statute and case law that only permit the admission of blood test results to show nonpaternity. The trial court in *Crain* ruled that HLA test results were not admissible to establish paternity because of the prejudicial effect that the statistical results could have on a putative father.⁹⁸ *Crain* involved a divorce action by the plaintiff and a petition for child support for her two children against her estranged second husband.⁹⁹ The defendant husband admitted paternity of, and an obligation of support for, the second child, born during wedlock. The putative father, however, denied paternity of the first child, born during the time the defendant and plaintiff were living together.¹⁰⁰ The defendant claimed that he was not the father of the first child because the mother was still married to her first husband at the time that child was born. In fact, the child was born a year after the plaintiff was separated from her first husband. The plaintiff claimed that she had not had sexual relations with her first husband after they were separated.¹⁰¹

At the trial, the plaintiff mother moved for the court to admit HLA tissue typing tests, but the court declined.¹⁰² The trial court ruled that the case of *Isaacson v. Obendorf*,¹⁰³ and the Idaho Paternity Act,¹⁰⁴ prevented the ad-

97. 104 Idaho 666, 662 P.2d 538 (1983).

98. *Id.* at 667, 662 P.2d at 539. The trial court noted that although there is a high likelihood that a defendant not excluded by the HLA test is in fact the father, such results are not conclusive. There is a possibility that another member of the small minority of males that would not pass the test is the actual father. The probability that a defendant is the father would be given so much weight that the evidence would appear more conclusive than it actually is. *Id.*

99. *Id.*

100. *Id.* at 666-67, 662 P.2d at 538-39. The first child was born while the couple was living together but before they were married. During this period, the plaintiff still had not obtained a divorce from her first husband. At the time the first divorce was granted, the plaintiff's first husband stipulated that he was presumptively the father of the first child, but he was not its natural father. *Id.*

101. *Id.* at 666, 662 P.2d at 538. The plaintiff separated from her first husband in February of 1975, and she claimed that she had not had sexual relations with him since that time. The child at issue was born on February 3, 1976, approximately nine months after the first time plaintiff had sexual intercourse with the defendant. *Id.*

102. *Id.* at 667, 662 P.2d at 539.

103. 99 Idaho 304, 581 P.2d 350 (1978).

104. IDAHO CODE § 7-1115 (1969) (repealed 1982); see *Crain*, 104 Idaho at 669 n.2, 662 P.2d at 541 (noting that § 7-1115, which has been repealed and replaced by IDAHO CODE §§ 7-1115, 7-1116 (Supp. 1984), provides for the admissibility of blood test evidence that shows the probability of paternity). The *Crain* court's decision involved former IDAHO CODE § 7-1115 (1969), which provides in part:

The Court, on motion of either party, may order the mother, her child and the defendant to submit to one . . . or more blood tests to determine whether or not the defendant can be excluded as being father of the child.

mission of HLA test results to prove paternity.¹⁰⁵ The plaintiff mother appealed the trial court's refusal to admit the HLA test results. On appeal, the Idaho Supreme Court reviewed the lower court's interpretation of the *Isaacson* case and the Idaho Paternity Act, discussing in detail the reliability of HLA tests as evidence on the issue of paternity.

The supreme court noted that the purpose of the rule for excluding blood tests that fail to establish nonpaternity is to avoid the improper inference that might result if these low probability blood test results were introduced at trial.¹⁰⁶ In the *Crain* case, however, the HLA test results showed a probability of 98.98% that the defendant was the child's father.¹⁰⁷ The likelihood that an improper inference would be drawn with a statistical probability this high was remote. The statistical evidence was, therefore, relevant and material to the issue of paternity.¹⁰⁸

The Idaho Supreme Court also reviewed its decision in *Isaacson*. *Isaacson* involved a paternity dispute in which blood test evidence that did not exclude paternity was admitted at trial.¹⁰⁹ In reversing the lower court, the supreme court in *Isaacson* had held that Idaho's restrictive blood test stat-

New § 7-1115 provides in pertinent part:

Testimony and evidence relating to paternity.—Evidence relating to paternity, whether given at the trial or the pretrial hearing, may include, but is not limited to:

. . . .

- (3) Blood test results under section 7-1116, Idaho Code;
- (4) The statistical probability of the alleged father's paternity based upon the blood tests; or
- (5) Medical, scientific or genetic evidence relating to the alleged father's paternity of the child based on tests performed by experts.

Id.

105. *Crain*, 104 Idaho at 669, 662 P.2d at 540-51.

106. *Id.* at 670, 662 P.2d at 542. The *Crain* Court observed, "A thorough review of the *Isaacson* case reveals that the Court was referring only to blood grouping tests in its determination of the allowable evidentiary uses of blood test results. These were the tests at issue in *Isaacson*, and the Court in its reasoning expressly referred to blood grouping tests." *Id.* (citing *Isaacson*, 99 Idaho at 309, 581 P.2d at 355).

107. *Id.* at 667, 662 P.2d at 539. The odds are 140,000 to 1 that some white male other than the defendant could have fathered the child. *Id.*

108. *Id.* at 673, 662 P.2d at 544-45. The court concluded that HLA tests are generally accepted in the scientific community as reliable on the issue of paternity. The fact that HLA tests are not conclusive is not sufficient to overcome the weight of authority supporting the recent trend to rely on HLA test results. *Id.* (citing *Cramer v. Morrison*, 88 Cal. App. 3d at 873, 153 Cal. Rptr. at 865; *Ahmad v. Ahmad*, 110 Wash. Daily L. Rep. at 1173; *J.B. v. A.F.*, 92 Wis. 2d at 696, 285 N.W.2d at 880; *Tice v. Richardson*, 7 Kan. App. 2d at 514, 644 P.2d at 440, *Phillips v. Jackson*, 615 P.2d at 1228).

109. *Id.* at 669, 662 P.2d at 541. In *Isaacson*, blood tests had been administered to the mother, putative father, and child. The tests were requested by the alleged father and were not ordered by the trial court. The results were admitted without any accompanying expert testimony. *Id.*

ute¹¹⁰ only permitted the use of blood test results that excluded paternity.¹¹¹ In *Crain*, the supreme court noted that the court's reference in *Isaacson* to Idaho's restrictive blood test statute was only to the evidentiary use of *blood* test results.¹¹² The issue on appeal in *Crain*, however, involved the evidentiary use of HLA *tissue* test results in paternity proceedings.¹¹³ The holding in *Isaacson* prohibiting the use of nonexclusionary blood test results, therefore, did not preclude the admission of HLA test results as positive proof of paternity in *Crain*.¹¹⁴

The court in *Crain* next discussed whether the reasoning in *Isaacson* should be extended to prevent the admission of HLA test results that do not exclude paternity. The *Crain* court noted that blood grouping tests have a limited number of variables and are only accurate for excluding paternity.¹¹⁵ The fact that a putative father is not excluded by blood test results does not indicate that the putative father is likely to be the actual father of a child. The danger exists, therefore, that an inference of paternity might be drawn from the fact that the putative father was not excluded by the blood test results.¹¹⁶ The *Isaacson* decision embodied the Idaho legislature's intent to avoid the potential prejudice that could result if nonexclusionary blood test results were admitted at trial.¹¹⁷

The *Crain* court observed that the potential for prejudice is far less with HLA test results than with conventional blood test results. HLA test results are highly probative and can often show a probability of paternity that exceeds ninety percent.¹¹⁸ In addition, HLA results can exclude the possibility of paternity in many cases in which conventional blood tests cannot.¹¹⁹ The court noted that the HLA test is far more comprehensive than conventional

110. See *supra* note 104.

111. *Isaacson*, 99 Idaho at 308-09, 581 P.2d at 354-55, quoted in *Crain*, 104 Idaho at 669-70, 662 P.2d at 541-42.

112. *Crain*, 104 Idaho at 670, 662 P.2d at 542.

113. *Crain*, 104 Idaho at 670, 662 P.2d at 542. "[T]he primary issue on appeal in [*Crain*] is whether HLA *tissue* test results can be admitted as evidence tending to prove parentage in a paternity proceeding." *Id.* (emphasis in original).

114. *Id.*

115. *Id.* (referring to Terasaki, *supra* note 18 at 543-44; MCCORMICK ON EVIDENCE, *supra* note 21, at § 211).

116. *Crain*, 104 Idaho at 670, 662 P.2d at 542. "[T]he general limitation on the use of blood grouping test results appears to be a consequence of concern over the possibility that an inference of paternity might be drawn improperly from the failure of a man to be excluded from paternity." *Id.*

117. *Id.* The *Isaacson* court focused on the prejudice that could have resulted from the admission of *blood grouping* test results that failed to exclude paternity. The prejudice clearly outweighed whatever probative value the results would have had as proof of paternity. *Id.*

118. *Id.* (citing *Miller v. Smith*, 6 Fam. L.R. 2660, 2662 (Ill. Cir. Ct. 1980)).

119. *Id.* See *supra* note 22.

blood tests because it involves a larger number of variables than standard blood tests.¹²⁰

The *Crain* court next reviewed Idaho's Paternity Act,¹²¹ which was enacted in 1969. At the time the statute was codified, HLA tests were not used in paternity disputes. Until 1975, the standard paternity tests were the Landsteiner series of blood grouping tests.¹²² The court reasoned that Idaho's legislature could not have intended to bar the use of new scientific evidence of which the legislature had no knowledge.¹²³ In fact, the language of the Idaho Paternity Act refers to "blood types," a term commonly applied to the Landsteiner series.¹²⁴ The court noted that it would be unreasonable to hold that Idaho's paternity statute, which was enacted to promote the use of scientific evidence in paternity actions, now serves to restrict the use of newer and more reliable scientific advances that were not contemplated at the time the statute was enacted.¹²⁵

The *Crain* court concluded that HLA test results are reliable evidence in paternity actions and are admissible as positive proof of paternity. The reasoning of the *Isaacson* case, which restricts the use of nonexclusionary blood test evidence, therefore, is inapplicable to HLA test results.¹²⁶ The court reversed the lower court's ruling and remanded the case for a new trial because the HLA test evidence was unjustifiably excluded by the trial judge.¹²⁷

120. *Id.* at 671, 662 P.2d at 543 (quoting *Goodrich v. Norman*, 100 Misc. 2d 33, 37, 421 N.Y.S.2d 285, 287 (N.Y. Fam. Ct. 1979)). The court in *Goodrich* observed that:

The HLA test is based on tissue typing of the white blood cells. This test is far more comprehensive because it involves a larger number of factors such as antigens in the white blood cells. It is widely accepted in scientific communities because in cases involving organ transplants it is used to match the donor and the recipient. Accuracy is essential when dealing with the lives of patients. The HLA test is far more expensive than the standard blood grouping tests and has not been used routinely by the courts in New York. However, the possibility of this respondent being excluded if he has been incorrectly named is somewhat better than 90%.

Id.

121. IDAHO CODE § 7-1115 (1969) (repealed 1982).

122. *Crain*, 104 Idaho at 671, 662 P.2d at 543 (citing *Cramer v. Morrison*, 88 Cal. App. 3d at 879, 153 Cal. Rptr. at 871). See also *Lee*, *supra* note 77, at 624; *Polesky & Krause*, *supra* note 21, at 291.

123. *Crain*, 104 Idaho at 671, 662 P.2d at 543 (citing *Happel v. Mecklenburger*, 101 Ill. App. 3d 197, 427 N.E.2d 974, 984 (App. Ct. 1981) (Romiti, J., dissenting)).

124. *Id.* (citing *Cramer v. Morrison*, 88 Cal. App. 3d at 877, 153 Cal. Rptr. at 869).

125. 104 Idaho at 672, 662 P.2d at 544 (quoting *J.H. v. M.H.*, 177 N.J. Super. 436, 441, 426 A.2d 1073, 1076 (N.J. Super. 1980)).

126. 104 Idaho at 670, 662 P.2d at 542.

127. *Id.* at 673, 663 P.2d at 545.

B. Judicial Adherence to the Traditional Blood Test Standard: A Refusal to Accept Reliable Proof of Paternity

Several jurisdictions have refused to admit HLA test results into evidence due to the enactment of restrictive blood test statutes.¹²⁸ Most of these courts have acknowledged the probative value of HLA test results, but have ruled that the legislature, not the courts, must change the law to allow for the admission of HLA test results.¹²⁹ In *J.B. v. A.F.*,¹³⁰ the Court of Appeals of Wisconsin considered an appeal of a state circuit court's ruling that held the plaintiff was the natural father of a child born out of wedlock. The plaintiff instituted the action for the declaration of paternity, pursuant to Wisconsin law,¹³¹ after the child's natural mother died. The defendants, parents of the deceased mother, opposed the plaintiff's petition and appealed the circuit court's ruling that HLA test results were admissible to establish paternity.¹³²

The appellate court in *J.B.* was confronted with Wisconsin's exclusionary blood test statute.¹³³ The Wisconsin statute permitted only exclusionary

128. See *Cardenas v. Chavez*, 103 Mich. App. 646, 303 N.W.2d 3 (Ct. App. 1981) (Michigan blood test statute prevents admission of HLA test results); *Jane L. v. Rodney B.*, 103 Misc. 2d 9, 425 N.Y.S.2d 235 (Fam. Ct. 1980) (New York statute allows only exclusionary test results; therefore, inclusory HLA test results inadmissible); *J.B. v. A.F.*, 92 Wis. 2d at 696, 285 N.W.2d at 880 (results of HLA tissue typing test inadmissible under Wisconsin exclusionary blood test statute).

129. See *supra* note 128.

130. 92 Wis. 2d 696, 285 N.W.2d 880 (Ct. App. 1979).

131. WIS. STAT. § 806.04 (3m) (1975) (repealed 1979) provided:

If the rights of the natural father have not been terminated, any person who claims to be the natural father of a child born out of wedlock and not subsequently legitimated or adopted may, within 5 years after the date of birth of the child, petition for a declaration of paternity. The court may determine by a clear and convincing preponderance of the evidence that the person is the natural father of the child. Any further determinations affecting the natural father's rights shall be in accordance with the standards of s. 48.425.

Id. § 806.04 (3m) (1975), (repealed 1979 as noted in *J.B. v. A.F.*, 92 Wis. 2d at 697 n.1, 285 N.W.2d at 880 n.1).

132. *J.B.*, 92 Wis. 2d at 697-98, 285 N.W.2d at 880-81.

133. WISC. STAT. § 885.23 provides:

Whenever it is relevant in a civil action to determine the parentage or identity of any child, person or corpse, the court, by order, shall direct any party to the action and any person involved in the controversy to submit to one or more blood tests as provided in s. 52.36. The results of said tests shall constitute conclusive evidence where exclusion is established and shall be receivable as evidence, but only in cases where a definite exclusion is established. Whenever the court orders such blood tests and one of the parties refuses to submit to such tests such fact shall be disclosed upon trial. Notwithstanding s. 52.36(2) the court shall determine who and by whom the costs of such examination shall be paid.

Id.

blood test evidence to be admitted at trial.¹³⁴ The defendant grandparents of the child claimed that the HLA test was a blood test within the meaning of the Wisconsin statute and, therefore, the HLA results were only admissible to exclude paternity. The plaintiff father argued that the Wisconsin statute was inapplicable because the HLA test was not a blood test. The plaintiff claimed that blood was not an essential element of the HLA testing procedure and that the same HLA results were obtainable without using the blood.¹³⁵

The court in *J.B.* noted that the HLA test is highly probative on the issue of proving paternity.¹³⁶ The court cautioned, however, that the test can never establish the fact of paternity with absolute certainty. Construing Wisconsin's exclusionary blood test statute strictly, the court noted that the restrictive language of the statute was a product of the state of medical knowledge at the time the statute was enacted.¹³⁷ Only the Landsteiner series of blood tests were then in use for paternity testing. The Landsteiner tests could exclude slightly better than half of all falsely accused nonfathers.¹³⁸ Since the statute was enacted, however, medical science has pushed the exclusion ratio up to over ninety percent.¹³⁹ The court noted that the HLA test was the primary reason for the increased accuracy in excluding falsely accused nonfathers.

The Wisconsin court acknowledged that the HLA test, if used in conjunction with a series of other tests, was also probative to show the likelihood of paternity.¹⁴⁰ The current state of medical science no longer warranted the restrictive approach of Wisconsin's exclusionary blood test statute as en-

134. 92 Wis. 2d at 699, 285 N.W.2d at 881.

135. *Id.*

136. *Id.* at 703, 285 N.W.2d at 883. The court noted that "[t]he ideal paternity test would separate the putative fathers into two categories: exclusion and inclusion with 100 [percent] probability. . . . The HLA system at present is the only blood test that approaches fulfilling [the ideal]." *Id.* (quoting Terasaki, *supra* note 18, at 552-54).

137. *J.B.*, 92 Wis. 2d at 701-02, 285 N.W.2d at 882.

138. *Id.* at 702, 285 N.W.2d at 882-83.

139. *Id.* at 703, 285 N.W.2d at 883. The court noted that the HLA test alone can exclude between 78% and 80% of all nonfathers. If the HLA test is used in conjunction with six other tests then the exclusion ratio increases to 91.21% for blacks, 93.34% for whites and 91.42% for Japanese. *Id.* (referring to the *Joint AMA-ABA Guidelines*, *supra* note 11, at 257-58 tables 2 & 3).

140. *J.B.*, 92 Wis. 2d at 702-03, 285 N.W.2d at 884. "The *Joint AMA-ABA Guidelines* recommend that a total of seven tests, including HLA, be used for routine investigations where the question is whether a male is excluded as the father. The *Guidelines* state that it is desirable to estimate the likelihood of paternity when the putative father is not excluded through serologic tests and that such estimates are admissible evidence in many foreign countries." *Id.* (citing *Joint AMA-ABA Guidelines*, *supra* note 11, at 257-60).

acted in 1935.¹⁴¹ The court refused to implement the necessary changes, however, and broadly construed the meaning of "blood test" within the statute to include the HLA test.¹⁴² The court strictly construed the negative language of the Wisconsin statute and prohibited the admission of the HLA test results to prove paternity. To hold otherwise would have been to amend the statute, which the court of appeals held was beyond its judicial power.¹⁴³

In *Jane L. v. Rodney B.*,¹⁴⁴ the Family Court of the City of New York addressed issues similar to those the Wisconsin court disposed of in *J.B. v. A.F. Jane L.* involved a paternity action to establish the respondent as the father of the petitioner mother's child. The mother petitioned the court to order the respondent to submit to an HLA test after the respondent was not excluded by a standard blood grouping test.¹⁴⁵ The respondent opposed the motion and argued that New York's exclusionary blood test statute¹⁴⁶ was solely for the benefit of the respondent. The respondent noted that the statute only permitted the results of tests to be admitted if the results excluded the possibility of paternity.¹⁴⁷

The *Jane L.* court claimed that the petitioner mother was not entitled to present evidence of nonexclusion of paternity by a standard blood grouping test.¹⁴⁸ Paternity tests are designed to benefit the respondent by demonstrating that he is not the child's father. The court ruled that it was the prerogative of the respondent to avail himself of the benefit of the HLA test after the standard blood test had not excluded the possibility of paternity.¹⁴⁹ The court reasoned that a respondent not excluded as a potential father by the HLA test will almost certainly be the child's father.¹⁵⁰ The petitioner

141. *J.B.*, 92 Wisc. 2d at 705, 285 N.W.2d at 884.

142. *Id.*

143. *Id.*

144. 103 Misc. 2d 9, 425 N.Y.S.2d 235 (Fam. Ct. 1980).

145. *Id.* at 10, 425 N.Y.S.2d at 236.

146. N.Y. Fam. Ct. Act § 532 (McKinney 1976) (amended 1981 to allow for admission of HLA test results to prove paternity). Section 532 provided in pertinent part:

The court, on motion of any party shall advise the parties of their right to a blood test and shall order the mother, the child and the alleged father to submit to one or more blood grouping tests . . . to determine whether or not the alleged father can be excluded as being the father of the child, and the results of such tests may be received in evidence but only in cases where definite exclusion is established.

Id.

147. *Jane L.*, 103 Misc. 2d at 10, 425 N.Y.S.2d at 236.

148. *Id.*

149. *Id.* at 11, 425 N.Y.S.2d at 237 (quoting *June B. v. Edward L.*, 69 A.D.2d 612, 419 N.Y.S.2d 514 (Sup. Ct. 1979); *Geraldine K. v. Elliot D.B.*, 99 Misc. 2d 720, 417 N.Y.S.2d 182 (Fam. Ct. 1979)).

150. *Jane L.*, 103 Misc. 2d at 11, 425 N.Y.S.2d at 236. The court noted that the exclusionary blood test statute permitted only two things to be established by a blood test. First, the results could be admitted to show that the alleged father is not actually the father. Second, the

mother's motion was viewed, therefore, as a request for evidence that showed the respondent was the child's father. Such evidence, the court held, is inadmissible under New York's exclusionary blood test statute.¹⁵¹

The family court ruled that the New York statute prohibited the admission of all inclusory test results opposed by the alleged father. Significantly, the court noted the highly probative nature of HLA test results.¹⁵² The exclusionary blood test statute was construed strictly, but the court urged the legislature to amend the statute to allow inclusory HLA test results.¹⁵³ The court suggested that a better approach would be to allow HLA test results into evidence at the request of either party to a paternity dispute.¹⁵⁴

In 1981, the Court of Appeals of Michigan decided *Cardenas v. Chavez*.¹⁵⁵ *Cardenas* involved an appeal from a Michigan circuit court on the issue of whether Michigan's exclusionary blood test statute¹⁵⁶ could prohibit the admission of HLA test results to prove paternity. The plaintiff mother argued that in a paternity dispute Michigan's rules of evidence¹⁵⁷ took precedence over the exclusionary blood test statute.¹⁵⁸ The rules provide that all relevant evidence is admissible at trial unless specifically prohibited elsewhere.¹⁵⁹ The court found that the specific exclusionary blood test statute superseded the general rules of evidence and, therefore, only exclusionary blood tests were admissible at trial.¹⁶⁰ Significantly, the court noted that

results could show that paternity remains to be determined. The defendant benefits from the former and the plaintiff mother benefits from the latter. *Id.*

151. *Id.* at 11-12, 425 N.Y.S.2d at 237.

152. *Id.* at 11, 425 N.Y.S.2d at 236. The court noted that a defendant not excluded by HLA test results will almost certainly be the father if other evidence of a relationship with the mother exists. *Id.*

153. *Id.* at 11-12, 425 N.Y.S.2d at 237.

154. *Id.*

155. 103 Mich. App. 646, 303 N.W.2d 3 (Ct. App. 1981).

156. MICH. COMP. LAWS § 722.716(d) (1956) (amended 1982 to allow for the admission into evidence of inclusory blood and tissue test results). Section 722.716(d) provides that "the result[s] of [blood] tests shall be receivable in evidence in the trial of the case but only in cases where definite exclusion is established." MICH. COMP. LAWS § 722.716 (1956) (amended 1982).

157. By order of the Supreme Court of Michigan, the Michigan rules of evidence, MRE 101.1102, were adopted on January 5, 1978. The rules are binding on all Michigan courts, although the supreme court will consider recommendations for changes or challenges to a particular rule. *See* MICH. CT. R. 508 (West 1983).

158. Specifically, the plaintiff claimed that MRE 402 takes precedence over Michigan's exclusionary blood test statute, MICH. COMP. LAWS § 722.716(d) (1956) (amended 1982). MRE 402 provides, "All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, the Constitution of the State of Michigan, these rules [of evidence], or other rules adopted by the Supreme Court. Evidence which is not relevant is inadmissible." MRE 402.

159. *Cardenas*, 103 Mich. App. at 648, 303 N.W.2d at 4. *See supra* note 158.

160. *Cardenas*, 103 Mich. App. at 648 (citing *Pridemore v. Williams*, 90 Mich App. 483,

HLA test results are highly probative and accurate on the issue of paternity. The court held, however, that only the Michigan legislature could amend the provisions of Michigan's Paternity Act to allow for the admission of inconclusive HLA test results at trial.¹⁶¹

The Appeals Court of Massachusetts, in *Commonwealth v. Blazo*,¹⁶² addressed an appeal by a defendant convicted of fathering an illegitimate child. The trial court denied the defendant's motion to have the mother, child, and defendant undergo an HLA test. The convicted defendant appealed the trial court's ruling and claimed that the trial court abused its discretion by refusing to order the HLA test. The appellate court upheld the trial court's ruling but acknowledged that the HLA test was relevant and highly accurate on the issue of paternity.¹⁶³ At the time the trial court refused to order the HLA test, it had no knowledge of the high reliability of HLA test results. The appeals court, therefore, ruled that there was no abuse of discretion by the lower court. The appellate court noted, however, that from the date of its decision forward a trial court should carefully consider granting a putative father's request for an HLA test.¹⁶⁴

C. *The Necessity of a Proper Foundation: Analogies to Other Types of Scientific Evidence*

There are several requirements for the admission into trial of evidence based on recent scientific developments. In 1923, the District of Columbia Court of Appeals decided *Frye v. United States*,¹⁶⁵ which set forth the standard for determining the admissibility of new scientific evidence. The defendant in *Frye* was convicted of second degree murder by the trial court and brought this appeal. The only issue on appeal was whether the trial court abused its discretion by refusing to admit into evidence the results of a lie detector test.¹⁶⁶ The defendant offered an expert witness to testify to the

487, 282 N.W.2d 363, 364 (1979) ("[I]n the case of a conflict between the General Court Rules and The Paternity Act, the Paternity Act provisions shall prevail." *Id.*).

161. *Cardenas*, 103 Mich. App. at 648.

162. 10 Mass. App. 324, 406 N.E.2d 1323 (App. Ct. 1980).

163. *Id.* at 325-27, 406 N.E.2d at 1326. The defendant's motion for an HLA test was denied in 1975, before the HLA test became generally accepted by the scientific community. Thus, the court ruled that at the time the trial judge made his decision the reliability and general acceptance of the HLA test had not been established. *Id.* at 325-26, 406 N.E.2d at 1325 (citing *Commonwealth v. Fatalo*, 346 Mass. 266, 269-70, 191 N.E.2d 479 (1963); *Commonwealth v. Lykus*, 367 Mass. 191, 202, 327 N.E.2d 671 (1975)).

164. 10 Mass. App. at 327, 406 N.E.2d at 1326.

165. 293 F. 1013 (D.C. Cir. 1923).

166. *Id.* at 1013-14. Defendant's counsel appealed the trial court's refusal to admit the lie detector test. The trial court had upheld the government's objection to admission of the evidence. *Id.*

results of a lie detector test performed on the defendant. While the appellate court affirmed the lower court's decision, it ruled that the expert's testimony and the test results were properly excluded from trial. The *Frye* court held that new scientific evidence must be sufficiently established in the relevant scientific community for an expert's opinion on the evidence to be admissible at trial.¹⁶⁷ The court noted that the new evidence must be generally accepted in the scientific community to be admissible.

In *Cramer v. Morrison*,¹⁶⁸ the California Court of Appeals confronted the unprecedented issue whether to admit HLA test results. The defendant asserted that the HLA test had not been accepted by the scientific community as a reliable paternity test.¹⁶⁹ The *Cramer* court noted that the traditional test for admitting an expert's testimony based on new scientific evidence was enunciated in *Frye*.¹⁷⁰ The *Cramer* court stated that three conditions must be met to satisfy the standard set forth in *Frye*. First, the party offering the new evidence must show that the technique upon which the evidence is based has been accepted by the relevant scientific community.¹⁷¹ Second, the expert presenting the new evidence must be properly qualified to give an opinion as an expert on the new scientific technique.¹⁷² Finally, the party

167. *Id.* at 1014. See also FED. R. EVID. 703. Rule 703 states:
Bases of Opinion Testimony by Experts.

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to him at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Id.

168. 88 Cal. App. 3d 873, 153 Cal. Rptr. 865 (Ct. App. 1979). See *supra* notes 55-71 and accompanying text.

169. *Cramer*, 88 Cal. App. 3d at 885, 153 Cal. Rptr. at 872.

170. *Id.* at 886, 153 Cal. Rptr. at 872-73.

171. *Id.* at 886, 153 Cal. Rptr. at 873. Acceptance in the relevant scientific community is a condition to admission of new scientific evidence to ensure that the new technique, upon which the evidence is based, has been tested for accuracy and reliability. This standard prevents the introduction of evidence based on a novel scientific hypothesis that is untested and uncertain in its application. Acceptance in the relevant scientific community indicates to the court that there is a sound basis for the theory underlying the introduction of the evidence. See also FED. R. EVID. 703, *supra* note 167.

172. *Cramer*, 88 Cal. App. 3d at 886, 153 Cal. Rptr. at 873. This requirement assures the court that the expert presenting the new evidence is familiar with the theory underlying the evidence and may apply the theory correctly to obtain the desired result. See also FED. R. EVID. 702. Rule 702 states:

Testimony by Experts.

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

offering the new evidence must show that the proper procedures were used so that the results with the new technique are accurate.¹⁷³

The California court refused to uphold the defendant's objection to the introduction of new scientific evidence on appeal because the defendant failed to assert the objection at trial.¹⁷⁴ The appellate court noted that the plaintiff, at trial, was not required to adduce sufficient evidence to show that the HLA test was generally accepted in the relevant scientific community as positive proof of paternity. The court stated that this deficiency in the trial record was due in part to the defendant's withdrawal of the acceptance issue at trial.¹⁷⁵ The appropriate remedy was to remand the case to the trial court for a proper determination of the general acceptance of the HLA test in the relevant scientific community.¹⁷⁶ The *Cramer* court concluded that the plaintiff would likely be able to establish an adequate foundation for the admissibility of the HLA test results to prove paternity.

In *Phillips v. Jackson*,¹⁷⁷ a paternity dispute¹⁷⁸ filed by the plaintiff mother, the Supreme Court of Utah also recognized *Frye* as the standard for determining the admissibility of new scientific evidence.¹⁷⁹ The primary issue on appeal in *Phillips* was whether the trial court erred in admitting new HLA test evidence to prove that the defendant was the child's father. The *Phillips* court noted that the best indication of the reliability of a new scientific technique is verification of the principle underlying the test by repeated applications and practical usage.¹⁸⁰ This is the process upon which *Frye* is premised. The *Frye* standard, however, does not require perfection as a con-

Id.

173. *Cramer*, 88 Cal. App. 3d at 886, 153 Cal. Rptr. at 873. This ensures that proper precautions have been taken to correctly apply the principles underlying the theory upon which the evidence is based. This requirement prevents the introduction of evidence that has been derived from a sound theory but faulty application. Such evidence would be particularly harmful because of the appearance of usefulness it would possess. See also FED. R. EVID. 705. Rule 705 states:

Disclosure of Facts or Data Underlying Expert Opinion

The expert may testify in terms of opinion or inference and give his reasons therefor without prior disclosure of the underlying facts or data, unless the court requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.

Id. (emphasis added).

174. 88 Cal. App. 3d at 886, 153 Cal. Rptr. at 873.

175. *Id.*

176. *Id.* at 888, 153 Cal. Rptr. at 874.

177. 615 P.2d 1228 (Utah 1980).

178. See *supra* notes 85-96 and accompanying text for discussion in *Phillips v. Jackson* on general admissibility of HLA test results in light of Utah's blood test statute.

179. *Phillips*, 615 P.2d at 1233.

180. *Id.* The court noted that verification of the basic principle underlying new scientific evidence and its application through repeated practical usage are the appropriate indicia of

dition for admitting new scientific evidence.¹⁸¹ In fact, evidence that is not scientific often falls far short of such accuracy. Finally, the court noted that novelty should not render evidence inadmissible in court because every new development must have a first day in court.¹⁸²

The *Phillips* court noted that several elements had to be established for HLA test evidence to be admissible at trial: the verity of the genetic principles underlying the HLA test had to be demonstrated; the accuracy and reliability of the HLA testing methods for determining paternity had to be shown; the impact of external variables that could affect the HLA results had to be considered; the HLA test had to be conducted under the proper procedures and with the proper materials and equipment; and finally, the qualifications of the expert witness had to be established.¹⁸³ The elements required by the *Phillips* court essentially fit into the three requirements that the court in *Cramer* set forth: acceptance of the test, qualifications of the witness, and the quality of the testing procedures.¹⁸⁴

The court in *Phillips* concluded that a proper foundation did not exist for the HLA test to be admitted into evidence.¹⁸⁵ One of the experts was a

reliability. *Id.* (citing *People v. Kelly*, 17 Cal. 3d 24, 130 Cal. Rptr. 144, 549 P.2d 1240 (1976)).

181. *Id.* (citing *United States v. Franks*, 511 F.2d 25 (6th Cir. 1975); *United States v. Stifel*, 433 F.2d 431 (6th Cir. 1970); *United States v. Alexander*, 526 F.2d 161 (8th Cir. 1975)). As one writer observed:

The argument that an acceptable inclusionary blood test for paternity must reach absolute certainty confuses the scientific with the legal definition of fact. Presently, paternity cannot be proven to a degree of absolute certainty, but the standard of proof required in a paternity action is preponderance of the evidence. The degree of certainty generated by the HL-A [sic] paternity test (eighty-seven percent of all inclusionary tests result in a percent probability of paternity of ninety percent or greater) strongly indicates that HL-A [sic] paternity testing provides relevant evidence to be weighed by the fact finder along with all other evidence in the case.

Comment, *Paternity Testing with the Human Luekocyte Antigen System: A Medicolegal Breakthrough*, 20 SANTA CLARA L. REV. 511, 526 (1980) (footnotes omitted), quoted in *Tice v. Richardson*, 7 Kan. App. 2d 509, 514, 644 P.2d 490 (Ct. App. 1982). There is no requirement in the law that scientific test evidence must be 100% accurate. *Phillips*, 615 P.2d at 1234 (citing *People v. Slone*, 76 Cal. App. 3d 611, 625, 143 Cal. Rptr. 61, 70 (Ct. App. 1978)).

182. *Phillips*, 615 P.2d at 1234 (quoting *United States v. Stifel*, 433 F.2d 431, 438 (6th Cir. 1970)).

183. *Phillips*, 615 P.2d at 1235.

184. *Id.* The court considered the following elements important for ensuring a proper foundation for the HLA test evidence. First, the genetic principles underlying the HLA test had to be proved reliable. Second, the methods used to apply the principles had to be accurate and reliable. Third, external factors and influences that could affect the accuracy of the test results had to be taken into account. Further, the court noted that the actual method employed in the particular test at issue had to be in accordance with the correct procedure and done with the proper equipment to be accurate. Finally, the qualifications of the necessary witnesses, expert and lay, had to be established.

185. *Id.* at 1236.

laboratory technician who did the basic laboratory work on the blood samples for the HLA test. The court stated that the laboratory technician was not qualified to testify on the validity of HLA tests as applied to paternity identification.¹⁸⁶ The laboratory technician's expertise with the HLA test was in the area of matching organ donors with patients for organ transplants. The record of the trial court failed to note whether there was a nexus between the reliability of HLA results for organ matching and the reliability of HLA results for paternity testing.¹⁸⁷

The principal expert for establishing the necessary foundation for the admissibility of the HLA results in *Phillips* was a pathologist. Significantly, the qualifications of the pathologist as an expert in the field of HLA paternity testing were not established.¹⁸⁸ The pathologist's testimony failed to establish the general acceptance of the HLA test in the medical community.¹⁸⁹ The pathologist also failed to discuss the relevancy of the statistical probabilities presented by the HLA test results. The court concluded that the pathologist's testimony was "too general, too vague and too unrelated" to the requirements to establish a reliable foundation for the HLA test results.¹⁹⁰

The *Phillips* court identified several other deficiencies in the trial court's record. First, the plaintiff mother failed to produce any evidence on the racial or ethnic background of the parties—evidence that could alter the probabilities established by the HLA test results. The expert witness also failed to discuss the significance of the genetic markers that were relied upon in the HLA testing procedure and the frequency of the markers as they appeared in the HLA test results.¹⁹¹ The plaintiff failed to establish that the

186. *Id.* The technician's testimony indicated that she had most of her experience in the area of HLA tissue typing for organ transplants.

187. *Id.* The lab technician did testify as to the necessary chain of custody of the blood samples and the use of the samples in the testing procedure.

188. *Id.* There was no evidence in the trial court's record that established the expertise of the pathologist in the area of HLA testing for paternity purposes. There also was no evidence indicating whether special training in pathology or some other discipline is necessary to qualify a witness to testify on the use and application of the HLA test.

189. *Id.* The pathologist failed to discuss the existence of any verification studies for the HLA test, nor did he testify as to the particular testing procedure used in the present case.

190. *Id.* at 1236-37.

191. *Id.* at 1237. The *Phillips* court noted:

Each genetic marker or system of genetic markers provides different chances of exclusion The white blood cell isoantigen system alone provides a 76% chance of exclusion. The next 13 systems provide from 32% to 13.8% chance of exclusion. By using the first 4 systems, a cumulative chance of over 90% is reached; by the first 7 systems, a 95% chance; and by all systems, a chance of 99.27%. In practice, only a limited number of laboratories presently have the capability of testing nearly all these genetic markers. The amount of involvement may not be justified by the small in-

sera¹⁹² used in the HLA test and the sophistication of the testing laboratory were of sufficient quality to obtain reliable test results.¹⁹³ Finally, the proponents of the HLA test failed to identify the number and types of other blood and tissue tests that were used in conjunction with the HLA test.¹⁹⁴

With regard to the final assignment of error, the *Phillips* court noted that the HLA test is normally performed in conjunction with a number of traditional blood tests to increase the probative value of the HLA results.¹⁹⁵ The use of additional blood tests increases the statistical probability for excluding falsely accused nonfathers and, therefore, increases the likelihood that a defendant not excluded by the test results is the actual father. The cumulative effect of all the tests increases the accuracy of the HLA test results. The court observed that the mean probability of excluding a nonfather through HLA testing is between 78% and 80% for blacks, white and Japanese.¹⁹⁶ The use of six additional blood testing systems¹⁹⁷ along with the HLA test produces a cumulative probability of exclusion of nonfathers that rises to 91.21% for blacks, 93.34% for whites and 91.42% for Japanese.¹⁹⁸

In *Phillips* there was no evidence that all six systems were used in conjunction with the HLA test. The percentage that the expert pathologist testified to, however, seemed to indicate that several tests were used.¹⁹⁹ The court observed that the record should precisely reflect the sequence and series of tests used to determine the indicated exclusion ratio to which the expert testified. The court concluded that the admission of the HLA test results

crease in chance of exclusion In the United States, tests with a chance of 70% exclusion can be carried out by a number of laboratories. If demand and interest increase, the capability of conducting tests with a 90% or higher chance of exclusion could be reached in a short time.

Id. (quoting *Lee, Current Status of Paternity Testing*, 9 *FAM. L.Q.* 615, 628 (1975)).

192. Sera are testing mediums through which genetic markers and blood types may be determined. *See generally* note 11.

193. *Phillips*, 615 P.2d at 1237.

194. *Id.* The *Phillips* court observed that:

[I]n order to make a proper determination of the advisability of admitting HLA test results in any given case, the foundational information before the court should include the number and type of other blood and tissue tests which have been administered to the persons involved in the litigation and the cumulative effect of the additional tests on the predictive accuracy of the HLA test.

Id. *See infra* notes 196-200 and accompanying text.

195. *Id.* *See supra* note 194, *infra* notes 196-200 and accompanying text.

196. *Phillips*, 615 P.2d at 1237 (quoting *J.B. v. A.F.*, 92 Wis. 2d at 703, 285 N.W.2d at 883).

197. The six additional systems recommended by the *Joint AMA-ABA Guidelines, supra* note 11, at 258 table 3, are the ABO, Rh, MNSs, Kell, Duffy and Kidd tests.

198. *Phillips*, 615 P.2d at 1237 (quoting *J.B. v. A.F.*, 92 Wis. 2d at 703, 285 N.W. at 883); *see Joint AMA-ABA Guidelines, supra* note 11, at 258 table 3.

199. *Phillips*, 615 P.2d at 1237.

without a proper foundation was prejudicial error. The case was reversed and remanded for a new trial.²⁰⁰

II. *CUTCHEMBER V. PAYNE*: THE DISTRICT OF COLUMBIA COURT OF APPEALS LEADS THE WAY TO RECONCILING ANTIQUATED BLOOD TEST STATUTES WITH MODERN PATERNITY TESTS

Appellant, Kathy M. Cutchember, filed suit in Prince George's County, Maryland, to obtain support payments for her minor child, Kesha. The appellant alleged that the appellee, Joseph Payne, Jr., was the child's father.²⁰¹ Pursuant to the Uniform Reciprocal Enforcement of Support Act,²⁰² the action was transferred from Maryland to the District of Columbia to obtain jurisdiction over Payne.²⁰³ Payne denied paternity and claimed that he owed no duty of support to the child.

Both parties agreed to submit to a series of blood grouping tests and to the HLA test. The HLA test results showed that 99.96% of the male popula-

200. *Id.* at 1238.

201. *Cutchember v. Payne*, 466 A.2d 1240 (D.C. App. 1983). The child was born out of wedlock on February 23, 1974. *Id.*

202. Uniform Support Act, D.C. CODE ANN. §§ 30-301 to 30-324 (1981); Uniform Reciprocal Enforcement of Support Act, MD. ANN. CODE, art. 89C, §§ 1-30 (1957). Section 30-314 of the District of Columbia Code provides in pertinent part:

Duty of Court when District is Responding State.

(a) When the Court receives from the court of an initiating state certified copies of a complaint or other proceedings containing the essential allegations of a complaint, under whatever name it may be known . . . it shall docket the cause and refer the matter to the Corporation Counsel . . . for such further action as may be necessary to obtain jurisdiction of the defendant in order to carry out the provisions of this chapter.

D.C. CODE ANN. § 30-314 (1981).

Section 14(a) of article 89C of the Maryland Code provides:

(a) Transmission of copies of petition, etc., to responding state.— If the court of this State acting as an initiating state finds that the petition sets forth facts from which it may be determined that the obligor owes a duty of support and that a court of the responding state may obtain jurisdiction of the obligor or his property, the court shall so certify and shall cause three copies of (1) the petition, (2) the certificate, and (3) this article to be transmitted to the court of the responding state. If the name and address of such court is unknown and the responding state has an information agency comparable to that established in the initiating state, it shall cause such copies to be transmitted to the state information agency or other proper official of the responding state with a request that it forward them to the proper court, and that the court of the responding state acknowledge their receipt to the court of the initiating state.

MD. ANN. CODE, art. 89C, § 14 (1957).

203. *Cutchember*, 466 A.2d at 1241. Appellant, Kathy M. Cutchember was a Maryland resident and appellee, Joseph Payne, was a resident of the District of Columbia. *Id.*

tion could not have fathered the child, but Payne was within the small remaining class who could have fathered Kesha.²⁰⁴ Payne objected to the admission of the HLA results at trial, claiming that they were not relevant and were barred by the District of Columbia's exclusionary blood test statute.²⁰⁵

The trial court denied Payne's relevancy objection, but upheld his claim that the blood test statute barred the admission of the HLA results into evidence.²⁰⁶ The trial court also ruled that the remaining evidence was not sufficient to prove that the appellee, Payne, was the child's father.²⁰⁷

The court of appeals was confronted with whether the HLA test results should have been admitted into evidence. Specifically, the court had to determine whether D.C. Code section 16-2343²⁰⁸ prohibited the use of HLA test results as affirmative proof of paternity. The court reversed the trial court's ruling and remanded the case for a new trial.²⁰⁹ The blood test statute was found to be inapplicable because the HLA test is not a blood test, but a tissue test that uses the blood as a convenient testing medium.²¹⁰ Although the HLA test is generally performed on white blood cells, the court noted that blood is not an essential ingredient of the test. The court also reasoned that the legislative history of section 16-2343 does not warrant its application to HLA testing.²¹¹ Congress could not have intended to prohibit a test that was not even developed at the time the statute was enacted.²¹²

204. *Id.* at 1242. The appellee, Payne, possessed the necessary HLA markers to have fathered the child. *Id.*

205. *Id.*

206. *Id.* The trial court ruled that the language of the blood test statute precluded the introduction of the test results.

207. *Id.*

208. *See supra* note 41.

209. *Cutchember*, 466 A.2d at 1241.

210. *Id.* at 1242.

211. *Id.* Section 16-2343 was aimed at eliminating improper uses of red blood cell grouping tests. "[T]he dangers of statistical unreliability and undue prejudice presented by the introduction of red blood cell grouping tests are not present with HLA results. HLA findings are highly probative of paternity and not unduly speculative." *Id.*

212. *Id.* at 1242. The District of Columbia's exclusionary blood test statute was enacted before the development of the HLA testing procedure. The HLA test is also markedly different from the blood grouping tests that the statute was enacted to cover. *Id.* (citing *Phillips v. Jackson*, 615 P.2d at 1233 (a statute enacted with reference to blood tests based on red cell groupings was not intended to apply to HLA which is of a different nature) and *Cramer v. Morrison*, 88 Cal. App. 3d at 869 (drafters of the Uniform Act on Blood Tests to determine Paternity did not have in mind tests of the nature of HLA)).

A. *Overcoming the Language of Section 16-2343, the District of Columbia's Exclusionary Blood Test Statute*

In *Cutchember v. Payne*,²¹³ the District of Columbia Court of Appeals addressed whether the admission into evidence of HLA test results that might establish the fact of paternity was prohibited by the District of Columbia's exclusionary blood test statute.²¹⁴ Although the exclusionary statute prohibited the use of "blood test" results as positive proof of paternity, the court ruled that the statute did not apply to the HLA test. Like the courts in *Ahmad v. Ahmad*²¹⁵ and *Crain v. Crain*,²¹⁶ the court of appeals in *Cutchember* ruled that the HLA test is a "tissue test" that is generally performed on the white blood cells.²¹⁷ The *Cutchember* court noted, as did the court in *Phillips v. Jackson*,²¹⁸ that blood is not an essential ingredient of the HLA test, but merely a convenient testing medium for conducting the test.²¹⁹

Writing for the court in *Cutchember*, Judge Nebeker examined the scope of section 16-2343 by analyzing the purpose of the statute in light of the language, legislative history and practical effect of the statute as enacted. The court of appeals reasoned that the legislative history of section 16-2343 warrants a limited application of the statute. The purpose for which section 16-2343 was enacted, to eliminate the statistical unreliability and undue prejudice inherent in the use of red blood cell grouping tests, is not a problem with HLA test results.²²⁰ As the courts in *Cramer v. Morrison*²²¹ and *Crain* noted, HLA test results are highly probative and accurate as proof of paternity.²²² The HLA test is of an entirely different nature than the red blood cell tests that Congress wanted to limit. In fact, the HLA test was not even developed at the time Congress enacted section 16-2343. The *Cutchember* court concluded that Congress could not have intended to prohibit unanticipated, future scientific advances such as the HLA test.²²³

The *Cutchember* court cited several state appellate court decisions in support of its conclusion that section 16-2343 does not prohibit the admission

213. 466 A.2d 1240 (D.C. App. 1983).

214. D.C. CODE ANN. § 16-2343 (1981).

215. 110 Wash. Daily Law Rep. 1173 (May 25, 1982); *see supra* notes 47-54 and accompanying text.

216. 104 Idaho 666, 662 P.2d 538 (1983); *see supra* notes 97-127 and accompanying text.

217. *Cutchember*, 466 A.2d at 1242; *see supra* notes 53-54 and accompanying text.

218. 615 P.2d 1228 (Utah 1980); *see supra* notes 85-96 and accompanying text.

219. *Cutchember*, 466 A.2d at 1242; *see supra* note 96 and accompanying text.

220. *Cutchember*, 466 A.2d at 1242.

221. 88 Cal. App. 3d 873, 153 Cal. Rptr. 865 (Ct. App. 1979); *see supra* notes 55-84 and accompanying text.

222. *See supra* note 61 and accompanying text, notes 118-20 and accompanying text.

223. *Cutchember*, 466 A.2d at 1242; *see supra* note 65 and accompanying text.

into evidence of HLA test results for the purpose of proving paternity.²²⁴ The court's decision is persuasive in that section 16-2343 was clearly not intended to prohibit all scientific test evidence. As the court in *Crain* observed, only scientific test evidence that posed a potentially prejudicial effect, due to the inconclusive proof of paternity from the test results, was to be excluded.²²⁵ At the time that most exclusionary blood test statutes were enacted, the standard paternity test was the Landsteiner series of blood grouping tests.²²⁶ The Landsteiner tests can only exclude slightly better than fifty percent of all nonfathers. The HLA test, however, can exclude more than ninety percent of all nonfathers.²²⁷

The fact that a defendant remains in the class of half the male population that could have fathered a particular child, as the case may be under the Landsteiner tests, should not be submitted to a jury for their unrestrained speculation. The result would surely be that the mother's adverse testimony coupled with a finding of nonexclusion would be sufficient to sway a jury's decision in favor of the mother.²²⁸ If a defendant remains in the class of less than ten percent of the male population who could have fathered the child, as the case may be under HLA testing, then the evidence is statistically much more probative and persuasive of the likelihood of paternity. As the court pointed out in *Crain*, such evidence is relevant to a jury's determination of paternity, and yet may be weighted by any adverse testimony or evidence that could show that the defendant never had access to the mother.²²⁹ The potential for prejudice with the HLA test, therefore, is minimal.

Most courts that have confronted the HLA admission issue have acknowledged that HLA test results are highly reliable and probative as positive proof of paternity.²³⁰ Not all of these courts, however, have seen fit to allow the HLA results into evidence.²³¹ Significantly, the courts that have not allowed the results into evidence have done so because of an exclusionary

224. *Crain v. Crain*, 104 Idaho at 662 P.2d at 538 (Idaho blood test statute does not prohibit admission of HLA test results); *Ahmad v. Ahmad*, 110 Wash. Daily L. Rep. 1173 (May 25, 1982) (D.C. CODE ANN. § 16-2343 does not bar admission of HLA test results); *Phillips v. Jackson*, 615 P.2d 1228 (Utah 1980) (Uniform Act on Paternity, as adopted in Utah, does not preclude admissibility of HLA test results to prove paternity); *Cramer v. Morrison*, 88 Cal. App. 3d 873, 153 Cal. Rptr. 865 (Ct. App. 1979) (California exclusionary blood test statute inapplicable to HLA test results).

225. See *supra* notes 115-20 and accompanying text.

226. *Cutchember*, 466 A.2d at 1241; see *supra* note 27 and accompanying text.

227. See *supra* notes 138-39, 195-98 and accompanying text.

228. See *supra* note 26 and accompanying text.

229. See *supra* notes 115-20 and accompanying text.

230. See generally *supra* notes 51, 82, 108, 118-20, 128-29, 136, 152, 161, 163 and accompanying text.

231. See *supra* note 128 and accompanying text.

blood test statute.²³² Like the court in *J.B. v. A.F.*,²³³ these courts have deferred amendment to the exclusionary blood test statute to the legislatures, rather than intervene judicially.²³⁴ As the court in *Cutchember* noted, however, this need not be the result.

Most exclusionary blood test statutes were enacted at a time when the Landsteiner blood grouping test was the standard paternity test.²³⁵ The exclusionary statutes, therefore, specifically refer to and limit the use of *blood tests* to exclude paternity. The use of the term blood test is a reference to blood grouping, the method of testing common to the Landsteiner series.²³⁶ The HLA test does not involve blood grouping and, in fact, need not even be performed on the blood.²³⁷ As the *Ahmad* and *Crain* courts noted, the HLA test identifies and characterizes antigens that appear in many tissues of the body.²³⁸ The reference to blood tests within the plain meaning of D.C. Code section 16-2343, therefore, clearly does not include HLA tissue tests.²³⁹ To strictly confine section 16-2343 to its specific language is neither a form of result-oriented jurisprudence nor an exercise of judicial intervention by the court in the legislative process. The court of appeals, in *Cutchember*, has merely construed the language of section 16-2343 as enacted.

B. The Cutchember Court's Failure to Establish Proper Guidelines for the Admission of HLA Test Results

Although the court of appeals in *Cutchember* allowed HLA test results into evidence, the court failed to instruct the trial court, on remand, with regard to the proper foundational requirements for the admission into evidence of HLA test results. The HLA test is a relatively new scientific technique that has only recently been applied in the area of paternity testing.²⁴⁰ As the courts in *Cramer* and *Phillips* noted, the standard for the admissibility of new scientific evidence was set forth in *Frye v. United States*.²⁴¹ *Frye* requires expert testimony based on new scientific evidence to be generally accepted as reliable within the relevant scientific community before it is ad-

232. *Id.*

233. 92 Wis. 2d 696, 285 N.W. 2d 880 (Ct. App. 1979).

234. *See supra* notes 143, 153, 161 and accompanying text.

235. *See supra* note 27 and accompanying text.

236. *See supra* notes 54, 94-95, 124 and accompanying text.

237. *See supra* note 53 and accompanying text.

238. *See supra* notes 52-53, 120, 191 and accompanying text.

239. *See supra* notes 54, 120 and accompanying text.

240. *See supra* note 39 and accompanying text.

241. 293 F. 1013 (D.C. Cir. 1923); *see supra* notes 165-67, 170-73, 179-82 and accompanying text.

missible at trial.²⁴²

In *Cramer*, the court applied the *Frye* standard to determine whether a proper foundation existed for the admission of HLA test results. The *Cramer* court ruled that three conditions must be met for the HLA results to be properly presented into evidence. The court required the HLA results to be: (1) accepted in the relevant scientific community, (2) presented by a properly qualified expert, and (3) accurately derived from proper testing procedures.²⁴³ Although the *Phillips* court expanded on the requirements, the basic conditions set forth were identical to those enunciated in *Cramer*.²⁴⁴ The court in *Cutchember*, however, failed to set forth adequately the proper foundational guidelines for the trial court.

The *Cutchember* court held that the HLA test was not a blood test within the meaning of D.C. Code section 16-2343 and, therefore, the results of the HLA test were improperly excluded from evidence.²⁴⁵ The appellate court failed to instruct the trial court on the requirements of *Frye v. United States* and the application of the *Frye* standard to the presentation at trial of new HLA test results. For HLA test evidence to be admissible at trial, an adequate foundation must first be established that will prevent either of the parties from being unduly prejudiced by inaccurate or unreliable test results. The application of *Frye* to the presentation of HLA test evidence, as set forth in *Cramer* and *Phillips*, would provide adequate protection to the involved parties.²⁴⁶

That the *Cutchember* court has apparently taken judicial notice of the acceptance of the HLA testing technique for paternity testing does not in itself seem particularly egregious. As one court noted, the validity of a scientific technique may be so generally accepted in the relevant scientific community that the court can take judicial notice of its reliability.²⁴⁷ Although the use of the HLA test for paternity testing is not common practice, it seems to be

242. See *supra* notes 165-67 and accompanying text. FED. R. EVID. 703 codifies the *Frye* standard by allowing evidence that is generally accepted by experts in a particular field to be admitted without establishing the underlying theory on which the evidence is based. *Id.* The Advisory Committee Notes to proposed rule 703 state that, "notice should be taken . . . that [proposed rule 703] requires that the facts or data 'be of a type reasonably relied upon by experts in the particular field.'" FED. R. EVID. 703 advisory committee note. See *supra* note 167 and accompanying text.

243. See *supra* note 173 and accompanying text.

244. See *supra* note 183 and accompanying text.

245. See *supra* note 209-12, 215-17, 224-25 and accompanying text.

246. See *supra* notes 170-73, 179-82 and accompanying text.

247. *Tice v. Richardson*, 7 Kan. App. 2d at 512, 644 P.2d at 492 (quoting *People v. Law*, 40 Cal. App. 3d 65, 75, 114 Cal. Rptr. 708, 711 (Ct. App. 1974)).

the trend for complicated paternity disputes.²⁴⁸ The *Cutchember* court's failure to discuss this aspect of the *Cramer* application of *Frye* is therefore not wholly without reason. The failure of the court of appeals to set a proper standard for the quality of HLA test evidence, however, is harmful and will undoubtedly cause confusion in later cases involving the application of the HLA test to paternity proceedings.²⁴⁹

The court of appeals implied sub silentio that the HLA test results in *Cutchember* were properly offered by a qualified expert in the field. Furthermore, the court assumed that the HLA results were derived from accurate and reliable testing procedures. Although the particular results in *Cutchember* may have been accurate and reliable, this will not necessarily be the result in all paternity suits involving HLA tests. The *Cutchember* court should have inquired into the particular qualifications of the expert offering the HLA evidence at trial. In addition, the accuracy and reliability of the testing techniques used to derive the HLA results should have been verified.²⁵⁰

In *Phillips*, the court addressed the foundational requirements for determining the quality of the HLA testing techniques used in each particular case. The court noted that the HLA test by itself can exclude between 78% and 80% of all nonfathers.²⁵¹ If the HLA test is used in conjunction with several other systems, then the exclusion ratio increases to over 90%.²⁵² As the court noted in *Phillips*, a 97% exclusion ratio indicates that other systems were used in conjunction with the HLA test to derive the high probability of exclusion.²⁵³ The *Phillips* court ruled that a proper foundation for the presentation of the HLA results did not exist because the trial record did not reflect the exact testing procedures used to derive the high exclusion ratio.²⁵⁴

In *Cutchember*, the court of appeals indicated that the HLA results demonstrated a 99.96% probability of exclusion.²⁵⁵ The *Cutchember* court failed to note whether this extremely high probability of exclusion was the product of only the HLA test, or whether the result was derived from a series of tests used in conjunction with the HLA test. The weight of authority indicates that the HLA test is only capable of achieving a 78% to 80%

248. See *supra* note 39 and accompanying text; see also *Joint AMA-ABA Guidelines*, *supra* note 11, at 248; Teraski, *supra* note 18, at 543.

249. See *supra* notes 176, 185-90 and accompanying text.

250. See *supra* notes 173, 183 and accompanying text.

251. See *supra* note 196 and accompanying text.

252. See *supra* note 198 and accompanying text.

253. *Phillips*, 615 P.2d 1228, 1237 (Utah 1980).

254. See *supra* notes 199-200 and accompanying text.

255. See *supra* note 204 and accompanying text.

probability of exclusion.²⁵⁶ It is, therefore, unlikely that the 99.96% probability of exclusion in *Cutchember* was derived solely from HLA test results. The *Cutchember* court should have required the exact testing procedures to be divulged so that the accuracy of the high exclusion ratio could be verified.

Another problem that arises from the court's failure to inquire particularly into the various foundational requirements is that the court may have reached a wrong conclusion concerning the applicability of the District of Columbia blood test statute. If additional tests were used in conjunction with the HLA testing procedure, the tests would have to have been blood tests. If blood tests were used along with the HLA test to derive the 99.96% exclusion ratio, then the court's reasoning that D.C. Code section 16-2343 does not apply becomes suspect.²⁵⁷ If the results were derived in part from blood tests, then section 16-2343 was applicable, and the results were excludable to the extent that the court's holding was based on the notion that the results were derived from an HLA tissue test outside the scope of section 16-2343. This unfortunate misapplication of law could have been avoided, however, if the court had focused on the high probability of the test results and required that the proponent of the HLA evidence demonstrate that the correct procedures were used to derive the high probability of exclusion.²⁵⁸

III. CONCLUSION

The *Cutchember* court followed the lead of several other jurisdictions and ruled that an HLA test is not a blood test within the meaning of an exclusionary blood test statute. The court noted that HLA test results are admissible at trial as positive proof of paternity. The *Cutchember* court also recognized the reliability and probative value of HLA test results on the issue of paternity. Unlike the courts in *Cramer* and *Phillips*, however, the court in *Cutchember* failed to set a standard to ensure that HLA test results are properly presented at trial. The *Cutchember* court has provided no guidance to the lower court for ensuring that a proper foundation exists for the admission of inclusory HLA test results.

The danger exists that future plaintiffs may offer highly probative and persuasive HLA evidence, but the lower court may not be aware of the correct procedure for accepting the evidence at trial. The brevity of the *Cutchember* decision and the lack of proper guidance on the recent developments in

256. See *supra* note 196 and accompanying text.

257. See *supra* notes 210, 224 and accompanying text.

258. See *supra* notes 193-200 and accompanying text.

HLA testing will undoubtedly lead to confusion among judges and jurors as to the proper requirements for analyzing HLA test results.

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