THE LEGAL MINEFIELD OF TWO MOMMIES AND A BABY:
DETERMINING LEGAL MOTHERHOOD THROUGH GENETICS

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Like the early days of the Internet, the dawn of personal genomics promises benefits and pitfalls that no one can foresee . . . . For better or for worse, people will want to know about their genomes. The human mind is prone to essentialism—the intuition that living things house some hidden substance that gives them their form and determines their powers. Over the past century, this essence has become increasingly concrete. Growing out of the early, vague idea that traits are “in the blood,” the essence became identified with the abstractions discovered by Gregor Mendel called genes, and then with the iconic double helix of DNA . . . . A firsthand familiarity with the code of life is bound to confront us with the emotional, moral and political baggage associated with the idea of our essential nature. People have long been familiar with tests for heritable diseases, and the use of genetics to trace ancestry—the new “Roots”—is becoming familiar as well.¹

—Steven Pinker

1. INTRODUCTION

The process of procreation, learned in middle school biology class, where sperm meets egg and life begins to grow, is taught as a process that is as old as time itself. However, with the ever-evolving scientific advancements in the field of Artificial Reproduction

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Technology ("ART"), the seemingly straightforward ideas of conception and biological connection become increasingly more complicated than a biology lecture. Since the products of conception are so in need of protection by the law, it is crucial that the legal system ensure a clear set of directives when faced with the questions of who is the biological parent and who should be awarded the protections guaranteed to parents under the Constitution. Due to the introduction of sperm banks and the creation of children without intercourse, states have begun and continue to deal with male rights in paternity cases; however, the new ARTs regarding the harvest, storage, and transfer of embryos have left a hole in the law in regard to defining legal motherhood. Courts currently grapple with determinations of maternity and paternity in cases of unmarried couples with children, surrogacy arrangements, cases utilizing frozen egg and sperm, same-sex couple parental rights, and courts will soon have to deal with cases when multiple individuals have a genetic link to a child. When there are two or even three women who are potentially the "mother" of a child, how should a court decide legal motherhood? It may sound like science fiction, but children exist today that have two genetic mothers and one genetic father produced through unique genetic technology that manipulates DNA in order to prevent disease. Therefore, a question arises in all of the paternity and maternity cases: should every genetic contributor be given parental status under the law? If we choose a limit of two genetic parents, how do we determine which two individuals have the best claim for legal parenthood? For example, a recent Florida case, T.M.H. v. D.M.T., had to grapple with whom to grant legal

2 For the purpose of this Article, ARTs are limited to reproductive technologies that involve a scientific process in a lab or doctor's office with fertilization occurring outside of the body. ARTs do not involve reproduction that is produced with sperm from a donor that is used to fertilize an egg inside a woman's uterus.

3 See What is Assisted Reproductive Technology?, CENTERS FOR DISEASE CONTROL & PREVENTION (Nov. 6, 2014), http://www.cdc.gov/art/.


5 See id. at 729-32.

6 See infra Parts II-III.

maternity to when one woman donated her ovum and her female partner gestated the fetus. One woman had a genetic tie to the child, but her partner had a gestational connection to the child, and the court had to examine the importance of these connections to determine whom it should grant legal rights. Issues regarding legal maternity are not merely looming in the future but are issues that courts are grappling with today and issues that will continue to appear in courts across the country.

This Article advocates for a change in the way lawyers and practitioners use the term “biological parent” when dealing with legal issues regarding maternity. The law should not use the phrase “biological mother” at all but should instead be more precise and descriptive and define women as either the genetic mother or gestational mother. Additionally, this Article proposes an amendment to section 201 of the Uniform Parentage Act (“UPA”) to give preference for genetic mothers over gestational mothers when determining legal motherhood in situations when intent is unclear and a written contract or instrument determining maternity does not exist.

Part II of this Article examines recent Florida appellate decisions that grappled with the definition of “biological mother” and looked at the various methods for determining legal motherhood before ultimately deciding on genetics. The dissent in T.M.H also makes a compelling argument about why the biological mother standard is vague and produces confusion when determining parental rights. Part III of this Article examines the hodgepodge of existing laws that different states created to demonstrate why we need a uniform system to settle the dispute of how courts determine motherhood in adoption and surrogacy cases. In addition, Part III examines the policy arguments both for and against each of the three methods used to determine legal motherhood. Part IV

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9 Id. at 788-90.
10 See id.
11 See infra Part V.
12 See infra Part V.
14 See infra Part II.
looks at the current issue of what to do with legal motherhood when three individuals have provided genetic material in order to conceive a child, and it shows that using genetics as a default way to determine legal motherhood and modifying the UPA to reflect this rule would ease the uncertainty of legal maternity when more than one woman claims parental rights. Part V concludes that the legal profession needs more precise language to avoid confusion, uncertainty, and excessive litigation when determining legal motherhood and how using this language and a modification of the UPA is the answer for determining legal motherhood when science continues to evolve and outpace the law.

By looking at cases that expand beyond the typical cases of maternity petitions, such as cases involving same-sex couples, the need for choosing genetics becomes clearer. Choosing genetics as a default rule not only provides an easy guide for practitioners in current cases that involve complicated claims of motherhood, but also provides a clear rule for courts for future cases.

II. DEFINITION OF BIOLOGICAL MOTHER AND METHODS TO DETERMINING LEGAL MOTHERHOOD

Many courts and articles use the term “biological mother” to determine which female in a child’s life is granted the legal status of mother in maternity cases. However, examination of what “biological mother” means shows that different judges have different ideas of what “biological” means when assessing how to determine legal maternity. This Article offers a solution and a definitional change to the law that provides courts with clear and consistent guidelines for maternity cases that are not governed by a written instrument or where intent of the

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16 See infra Parts III.C, IV.
17 See, e.g., T.M.H., 79 So. 3d at 788-90, 795, 802 (using the term “biological mother” and discussing cases that use that same term); Amy M. Larkey, Redefining Motherhood: Determining Legal Maternity in Gestational Surrogacy Arrangements, 51 DRAKE L. REV. 605, 606-07 (2003) (discussing the legal status of the biological mother).
18 See T.M.H., 79 So. 3d at 794-802, 806-07.
parties is unclear or disputed.\textsuperscript{19} In addition to advocating for a definitional distinction, this Article proposes giving preference to genetics when determining legal motherhood when intent and contracts are unclear or disputed.

If ARTs had not advanced to their current state, legal maternity would still be determined as it was during the American Revolution, by gestation.\textsuperscript{20} While the law has long adjudicated issues of paternity, the rapidly evolving techniques of ARTs and the increase in their use have presented questions for the courts and legislatures in regards to maternity because of the intricate role of the gestational carrier that has no counterpoint in paternity cases.\textsuperscript{21} Florida courts have recently handled the issue of two involved mothers who had participated in the birth of their child, one by providing genetic material and the other by gestating the child, and claimed legal motherhood when a standard, nonspecific contract did not resolve the dispute of who was entitled to legal motherhood.\textsuperscript{22}

\textit{T.M.H.} is illustrative of how courts handle determinations of legal motherhood when intent is unclear; the term “biological mother” is interpreted two different ways, and both women had played a significant role in the child’s life.\textsuperscript{23} The case involved a lesbian couple who decided to conceive a child together using ART; one woman provided the ovum, the other woman gestated the child, and an anonymous sperm donor was used.\textsuperscript{24} The women raised the child together for a period of two years before the relationship deteriorated and the gestational mother moved with the child to another country.\textsuperscript{25} In reaching its conclusion that the genetic mother had a claim to legal parenthood, the court looked at whether the parties intended to raise the child together, whether a written instrument dictated the terms of the

\begin{footnotesize}
\begin{enumerate}
\item See infra Parts III.C, IV-V.
\item Id. at 115-16.
\item See, e.g., \textit{T.M.H.}, 79 So. 3d at 787.
\item Id.
\item Id. at 788.
\item Id. at 789.
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custody arrangement, and what the term “biological” meant in the Florida Statutes.26

The court first considered a simple intent test to determine legal motherhood, because the facts pointed to the couple’s intent to raise the child together.27 However, the court was required to modify the standard intent test because the form signed at the fertilization clinic appeared to negate the genetic mother’s intent to raise the child.28 Before the couple decided to use in vitro fertilization, they purchased property together and shared a joint bank account.29 After the child was born, the women hyphenated the child’s last name on the birth certificate to include both of their last names, sent out birth announcements to family and friends, listing them both as parents of the child, and both women played an active role in the child’s early life.30 However, there was an issue of what role, if any, the signed form should factor into the analysis.31 If the court had strictly applied an intent test without dealing with the issue of the signed form, it would have resulted in an adjudication that the women were both the legal parent of the child because they both intended to raise the child together, and in fact did so for two years after the child’s birth.32

26 See id. at 790-803.
27 See id. at 791-98, 801-02.
28 See id.
29 Id. at 788.
30 Id. at 789.
31 Id. at 801-02. The form the genetic provider signed reads as follows:

I, the undersigned, forever hereinafter relinquish any claim to, or jurisdiction over the offspring that might result from this donation and waive any and all rights to future consent, notice, or consultation regarding such donation. I agree that the recipient may regard the donated eggs as her own and any offspring resulting there from as her own children. I understand that the recipient of the eggs, her partner, their successors, offsprings and assigns have agreed to release me from liability for any mental or physical disabilities of the children born as a result of the Donor Oocyte Program and from any legal or financial responsibilities from an established pregnancy or medical costs related to that pregnancy or delivery.

Id. at 801.
32 See id. at 797-98. The court held that even though the genetic provider signed this agreement, in which she appears to relinquish her rights to the child, she did not intend
Since the court had to decide the issue of legal maternity in a case where intent seemed clear, but a written instrument appeared contrary to the parties’ actions, the court looked to genetics and public policy to resolve the issue of parenthood. In order to find what rights were due to the genetic mother, the court looked to rights granted to genetic fathers in Florida. The court referenced the standard in the Supreme Court’s Lehr v. Robertson decision, stating that, “When an unwed father demonstrates a full commitment to the responsibilities of parenthood by coming forward to participate in the rearing of his child” the court should “recognize the sanctity of the biological connection, and [should] look carefully at anything that would sever the biological parent-child link.” This argument is clearly a genetic one that recognizes the constitutional rights of genetic parents as long as they participate in the raising of their child. The court concluded that the genetic mother had a biological interest in the child and participated in the upbringing of the child from conception to birth, therefore she was entitled to certain rights guaranteed to parents under the Constitution.

The dissent’s argument for determining that the phrase “biological mother” meant “gestational mother” for the purpose of determining legal motherhood highlights the definitional issues that arise when the phrase “biological mother” is used in legislative drafting because of the various interpretations people have for what is considered biological. It only illustrates a need for clearer language choices, such as for “genetic mother” and “gestational mother” in lieu of “biological mother.” The crux of the problem in using the term “biological mother” showcases the long-standing roots of a law that is
in desperate need of modernization in order to keep pace with ARTs. The dissent argued that both the genetic mother and the gestational mother are "biological" because they both participated in biological processes—either the production of the ovum or the gestation. The dissent argued that the gestational mother's contribution was more biological than that of the genetic mother because of her nine-month connection with the child, and therefore, it was incorrect to define the genetic mother as the biological mother. This argument ignores the inherent importance of blood relatives and the link that individuals feel with their genetic ancestors. However, the dissent did agree that if the genetic mother does have a claim to the child it is one based on her genetic link. Even the dissent recognized the importance of the genetic link between a mother and child and suggested this as a method for determining legal maternity.

Overall, the court's decision to grant legal rights to both mothers was the proper result because it acknowledged the importance of genetics in determining parental rights, but if intent or written agreements were the sole avenues available for the court to decide this case it is unclear if it would have arrived at this result. This case did not have a clear answer under the intent test; the choice of choosing the gestational mother alone would not have resulted in a just result for the child and the genetic mother. However, because the court also determined maternity based on a genetic link, a proper result was reached. The problem here is not simply a definitional one of who is the biological mother, but a policy question of the best way to handle maternity cases when more than one woman has some biological

41 See generally In re Marriage of Buzzanca, 72 Cal. Rptr. 2d 280, 293-94 (Cal. Ct. App. 1998) (explaining that the law must adapt to address the new legal issues raised by ARTs).
42 See T.M.H., 79 So. 3d at 806-07 (Lawson, J., dissenting).
43 See id.
44 See infra notes 163-72 and accompanying text.
45 T.M.H., 79 So. 3d at 808-09 (Lawson, J., dissenting).
46 See id.
47 See id. at 803 (majority opinion).
48 See generally id. at 792-98 (discussing the intent of the parties).
49 See id. at 797.
connection to the child. Part III will examine the policy behind three of the most common responses that courts choose and why choosing genetics is the best rule for courts to use in the future.

## III. How States Determine Legal Motherhood

Before exploring the different methods currently used to determine legal motherhood, it is important to look at the different ways state legislatures handle the issue to illustrate that there is a pressing need for a uniform method of handling maternity determinations to avoid confusion and forum shopping. There was a long tradition in the common law, both in the United States and from England, that a married husband and wife were presumed to be the legal mother and father of children born into the marriage. Today, “[t]he marital presumption exists in some form in virtually all states” and states have found ways to overcome the presumption for men, through putative father registries, but have not dealt with how to overcome this presumption when it comes to women. States still grapple with determining motherhood when one, two, or no mothers have a genetic tie to the child.

Since state law generally governs legal parentage and adoption, it is necessary to look at how states have handled the issue of determining legal motherhood and the policy behind the statutes. Some states have continued with the historical presumption that a woman who bears a child is the legal mother of that child. In fact, section 201 of the UPA still lists as its first way to establish a mother-

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50 See id. at 807, 822 (Lawson, J., dissenting).
51 See infra Part III.
52 DOUGLAS E. ABRAMS ET AL., CONTEMPORARY FAMILY LAW 288 (3d ed. 2012). “[I]t is a rule, founded in decency, morality, and policy, that [spouses] shall not be permitted to say after marriage, that they have no connection, and therefore that the offspring is spurious . . . .” Goodright v. Moss, 98 Eng. Rep. 1257, 1258 (K.B. 1777).
53 ABRAMS ET AL., supra note 52, at 289.
54 See generally Carla Spivack, The Law of Surrogate Motherhood in the United States, 58 AM. J. COMP. L. 97, 101-09 (Supp. 2010) (discussing various issues that courts face in addressing surrogacy in its many forms).
55 See, e.g., Larkey, supra note 17, at 611-12 (discussing the complex legal issues involved in a Massachusetts surrogacy case).
56 See id. at 625-26.
child relationship between a woman and a child is, "the woman’s having given birth to the child."\textsuperscript{57} This presumption becomes problematic, especially in surrogacy arrangements, where the genetic mother is not the gestational mother for the child.\textsuperscript{58} In cases where a written instrument or clear intent by the parties exists, there is rarely an issue of who is or is not intended to be the legal mother of the child.\textsuperscript{59} However, we must examine how states handle determinations of legal motherhood when there is no clear intent or written instrument.\textsuperscript{60}

The three main ways that courts determine maternity is through genetics, gestation, and the best interests of the child standard.\textsuperscript{61} It is important to examine the ramifications and policy concerns behind each method to determine legal motherhood to clarify why genetics is the best method to use in the future.\textsuperscript{62} Today we live in a global society in which individuals and families have easy mobility to move from state to state and have the ability to enter into surrogacy and adoption agreements across state borders.\textsuperscript{63} Commissioning individuals can reside in one state but enter into a surrogacy agreement in another.\textsuperscript{64} Since each state treats surrogacy agreements differently, this could lead to forum shopping and raise issues over what state law controls when


\textsuperscript{60} See infra Parts III.A-C.


\textsuperscript{62} See infra Parts III.A-C.


\textsuperscript{64} See LESBIAN, GAY, BISEXUAL AND TRANSGENDER FAMILY LAW § 4:25, supra note 63.
issues arise. For this reason, adoption and surrogacy are no longer individual state issues, and a national standard for determining maternity and paternity should govern in order to create consistency and clarity in child custody cases. Choosing genetics as the default rule when intent is unclear provides courts with a reliable standard when making maternity determinations.

A. Should the Best Interests of the Child Be Considered in Determinations of Legal Maternity?

An approach some states take is to look towards the best interests of the child standard to determine maternity. For instance, Michigan law states the following:

If a child is born to a surrogate mother or surrogate carrier pursuant to a surrogate parentage contract, and there is a dispute between the parties concerning custody of the child, the party having physical custody of the child may retain physical custody of the child until the circuit court orders otherwise. The circuit court shall award legal custody of the child based on a determination of the best interests of the child.

This law appears straightforward on its face but requires a more searching inquiry than merely a textual one to determine legal motherhood and presupposes that legal motherhood equates to legal custody because it blends the issue of custody and legal motherhood, which are two different legal concepts. This approach mirrors that

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65 See, e.g., Hodas v. Morin, 814 N.E.2d 320, 324, 327 (Mass. 2004) (examining a surrogacy agreement that implicated the laws of multiple states and raised concerns over forum shopping).
66 See supra notes 63-65 and accompanying text.
67 See infra Part III.C.
68 See Kane, supra note 61.
illustrated in Lehr, where the Court tried to blend the biological connection and the participation of the parent in the child’s life. Although the best interests of the child standard appears to focus more on custody rather than parentage, the standard affects the resolution of parentage questions in state courts because part of the best interests of the child analysis requires inquiry into who are the genetic parents. Ultimately, when using the best interests of the child standard to determine legal parentage, courts may end up awarding legal rights to parents who have no genetic or gestational tie to the child. While the best interests of the child standard is a tempting one, since we all want to do what is in a child’s “best interest,” this standard of review in maternity cases is just as problematic as determining maternity by gestation alone because it is time-consuming, creates uncertainty for the parties involved, and can lead to protracted litigation.

However, some states still use the best interests of the child standard arguing that it is good public policy. The mere idea of the best interests of the child sounds like it should win the day for methods to determine maternity simply because it appears to put the needs of a child paramount to any other claims under the law. There is a strong argument in favor of applying a best interests standard to not only maternity cases but also child custody cases in general. First, the best interests of the child standard is not a new standard but is generally well-known by lawyers and judges practicing in the area of family law. Second, many argue that a single legal rule based on genetics, intent, or gestation is simply insufficient to account for the diversity of context in which maternity disputes occur, especially as these types of

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72 See Kane, supra note 61; see also Hisano, supra note 61, at 543-53.
73 See Kane, supra note 61.
75 See, e.g., MICH. COMP. LAWS ANN. § 722.861 (West 2015).
76 See id.
77 See infra notes 78-85 and accompanying text.
78 Hurwitz, supra note 74, at 130, 170-71.
disputes become more common as the world of ARTs rapidly expand.\textsuperscript{79} Therefore, by allowing a standard that encompasses many factors that affect a child’s life, including genetics, gestation, and how the child was raised prior to the proceedings, courts will be able to give a more educated response as to who should be granted custody.\textsuperscript{80}

Additionally, the best interests of the child standard is meant to ensure that the child is awarded the best possible legal parents in order for him or her to grow up in a safe and nurturing environment.\textsuperscript{81} As a society we want courts to recognize that when dealing with adoption and surrogacy issues the result is the welfare and future of a child, a human being with wants and needs.\textsuperscript{82} While individual rights are at issue for the women claiming maternity, a child is also the award of dispute resolution, which is different than simply being granted rights under the law.\textsuperscript{83} There is a strong public policy argument that favors rearing children in the best possible environment available to them.\textsuperscript{84} The best interests of the child standard provides a case-by-case analysis that allows a judge to examine all of the issues and grant legal parenthood to the parent who can provide the best possible environment to the child.\textsuperscript{85} If judges get to look at all of the factors including genetics and gestation, will they not arrive at the best result? The best interests of the child, however, is not the idyllic standard it purports to be, and problems arise in its application.\textsuperscript{86} A main question with regard to the best interests standard is a question of equal protection regarding the treatment of mothers who conceive in the traditional way.\textsuperscript{87} We need a standard that allows equal protection for mothers who are both the genetic and the gestational mother, and mothers who use ARTs to

\textsuperscript{79} See, e.g., id. at 179-80.
\textsuperscript{80} See id. at 130, 172.
\textsuperscript{81} See id. at 130, 172-73.
\textsuperscript{82} See id. at 173.
\textsuperscript{83} See id. at 179.
\textsuperscript{85} See Hurwitz, supra note 74, at 130.
\textsuperscript{86} See infra notes 87-107 and accompanying text.
\textsuperscript{87} See Margalit et al., supra note 20, at 113-14.
conceive. We do not require mothers who conceived through intercourse to go through a best interests of the child standard in termination of parental rights cases, where a determination of legal motherhood is necessary in order to terminate parental rights.\textsuperscript{88} Therefore, the question arises as to whether it is unfair to submit women who did not conceive through traditional intercourse to this type of review in determination of legal maternity disputes.\textsuperscript{89} This is perhaps phrased best by saying, “laws are designed to protect natural parents in their preemptive rights to their own children wholly apart from any consideration of the so-called best interests of the child. If it were otherwise, few parents would be secure in the custody of their own children.”\textsuperscript{90} We do not require couples (or even singles) that have the means to procreate without ARTs to undergo a best interests of the child analysis once a child is born.\textsuperscript{91} The Constitution allows anyone who is capable of producing children the full power of constitutionally protected rights automatically awarded to them.\textsuperscript{92} Determination of legal maternity is different than that of termination of parental rights or custody disputes; however, the best interests of the child standard may not be the most appropriate standard for determining legal motherhood because it may favor one woman over another in a way that biases women who cannot reproduce without the assistance of ARTs.\textsuperscript{93}

A second concern of utilizing the best interests of the child standard is the promotion of mainstream views of family and the granting of children to individuals who are more financially stable or better educated.\textsuperscript{94} To further elaborate on this issue, “[i]f [the] best interests of the child were a sufficient qualification to determine child custody, anyone with superior income, intelligence, education, etc., might challenge and deprive the parents of their right to their own children.”\textsuperscript{95} The best interests of the child standard, while well-known, is also a vague standard that does not give clear definitions to the

\textsuperscript{88} See id.
\textsuperscript{89} See id.
\textsuperscript{90} In re Petition of Doe, 638 N.E.2d 181, 182 (Ill. 1994).
\textsuperscript{91} Margalit et al., supra note 20, at 114.
\textsuperscript{92} See id. at 113-14.
\textsuperscript{93} See id.
\textsuperscript{94} See Hisano, supra note 61, at 548; Hurwitz, supra note 74, at 178.
\textsuperscript{95} In re Petition of Doe, 638 N.E.2d at 182-83.
weight at which evidence should be weighed and is often left in the hands of biased judges.\textsuperscript{96} Furthermore, the standard cannot be reviewed on appeal, leaving a woman who is denied legal maternity almost no other recourse.\textsuperscript{97} While we like to assume that judges bring no bias into the courtroom, every individual possesses bias for or against certain things, and, therefore, it is not a stretch to imagine that a judge could use his or her individual bias in deciding a best interests of the child standard that is so broad and gives so much discretion to judges.\textsuperscript{98} For instance, a common fear is that custody under the best interests of the child standard will go to a heterosexual couple over a homosexual couple, because mainstream society still tends to favor heterosexual relationships.\textsuperscript{99} Public policy dictates that we want a child raised in the best possible home, but, once again, we do not require couples that can conceive without the assistance of ARTs to prove that they can serve the best interests of a child before the court grants legal parenthood.\textsuperscript{100} Couples who conceive in the traditional way are granted parental rights solely on the basis of their genetic connection to the child.\textsuperscript{101} The unpredictability of the parental right determination is just too large to have the best interests of the child standard as a reliable method of determining legal maternity.\textsuperscript{102} While financial capabilities, education, and the ability to nurture are all important things, should we really consider them when granting legal parental rights?

Finally, utilizing the best interests of the child standard is detrimental to determining legal maternity because the standard, by its very nature, triggers the need for protracted and expensive litigation.\textsuperscript{103} Because the best interests of the child standard is based on many factors, the litigation for its determination is likely to be protracted and a financial drain not only on the state but on the women seeking determination as well.\textsuperscript{104} For example, home studies that are required in

\textsuperscript{96} Hisano, \textit{supra} note 61, at 548; Hurwitz, \textit{supra} note 74, at 178.
\textsuperscript{97} Hisano, \textit{supra} note 61, at 548; Hurwitz, \textit{supra} note 74, at 178.
\textsuperscript{98} Hisano, \textit{supra} note 61, at 548; Hurwitz, \textit{supra} note 74, at 177-78.
\textsuperscript{99} \textit{See} Hurwitz, \textit{supra} note 74, at 178-79.
\textsuperscript{100} \textit{See} Margalit et al., \textit{supra} note 20, at 114.
\textsuperscript{101} \textit{See id}.
\textsuperscript{102} \textit{See} Hurwitz, \textit{supra} note 74, at 174.
\textsuperscript{103} \textit{See id}.
\textsuperscript{104} \textit{See id}.
many best interests of the child cases are time-consuming and a financial burden on the state.\textsuperscript{105} Requiring that home studies and other requirements be performed in every best interests of the child case will cause such a financial drain and backlog in the system that it could be years before a child is granted permanent legal parents.\textsuperscript{106} It is just unreasonable to conduct such searching inquiries into each case, especially when the number of cases is on the rise due to the availability of ARTs.\textsuperscript{107}

Overall, the best interests of the child standard is not the idyllic standard it purports to be and is not the best standard to evaluate legal maternity.\textsuperscript{108} The faults of protracted litigation, unpredictable outcomes, and the questions of equal protection far outweigh the benefits of applying the best interests of the child standard to every case that questions legal maternity.\textsuperscript{109} These problems could be avoided in cases for same-sex couples and where more than one woman has a claim to a child, especially as technology expands to provide more opportunities for infertile individuals.\textsuperscript{110} If we use a genetic standard for parents who conceive in the traditional way, we should utilize the same standards for individuals who use ARTs.\textsuperscript{111}

B. Gestational Maternity, a Popular but Imperfect Solution

A more popular model for states to determine legal maternity is to retain a gestational method in their statutory language. For example, North Dakota’s statute states the following:

\textsuperscript{106} See generally \textit{id.} (discussing the additional time and expense required for home studies).
\textsuperscript{107} See generally Charles P. Kindregan, Jr., \textit{Considering Mom: Maternity and the Model Act Governing Assisted Reproductive Technology}, 17 J. OF GENDER, SOC. POL'Y, & THE L. 601, 602-04 (2009) (discussing how the increased use of ARTs has led to an increase in legal disputes).
\textsuperscript{108} See \textit{supra} notes 87-107 and accompanying text.
\textsuperscript{109} See \textit{supra} notes 87-107 and accompanying text.
\textsuperscript{110} See Kindregan, \textit{supra} note 107.
\textsuperscript{111} See \textit{supra} note 101 and accompanying text.
Any agreement in which a woman agrees to become a surrogate or to relinquish that woman’s rights and duties as parent of a child conceived through assisted conception is void. The surrogate, however, is the mother of a resulting child and the surrogate’s husband, if a party to the agreement, is the father of the child.\textsuperscript{112}

This statute gives a clear resolution to the question of how to determine legal motherhood, but it is problematic for many policy reasons;\textsuperscript{113} however, it is a more preferable, but still imperfect, choice when choosing a method for legal parenthood.\textsuperscript{114} A preference for determining legal motherhood via gestational carrier is a clear and simple method utilized for judicial efficiency and economic reasons.\textsuperscript{115} For example, case law on this statute is almost nonexistent because the state gives a clear guideline in determining who the legal mother should be.\textsuperscript{116} New Hampshire follows North Dakota’s lead with legislation that states, “[a] person is the parent of a child to whom she has given birth, except as otherwise provided in this chapter . . . .”\textsuperscript{117} This move to give preference for gestational mothers when determining legal motherhood will likely require additional judicial interaction, via adoption, for parties that use surrogacy agreements, and it ignores the intent of the parties to enter into such surrogacy agreements.\textsuperscript{118}

Several states utilize this method of determining legal motherhood, as referenced above, and it is currently the recommended choice, as outlined in the UPA.\textsuperscript{119} One argument for this determination is a historical one, because states have historically determined legal motherhood based on who gave birth to the child.\textsuperscript{120} Before the invention of ARTs there was no way to separate genetics from gestation in childbirth, making gestation an easy bright-line rule for courts to

\textsuperscript{112} N.D. Cent. Code Ann. § 14-18-05 (West 2013).
\textsuperscript{113} See infra notes 128-39 and accompanying text.
\textsuperscript{114} See infra notes 120-27 and accompanying text.
\textsuperscript{115} See infra notes 122-23 and accompanying text.
\textsuperscript{116} See § 14-18-05.
\textsuperscript{118} See infra note 132.
\textsuperscript{120} See Larkey, supra note 17, at 625.
follow when legal maternity was, if ever, at issue. Second, determining legal motherhood based on gestation is a predictable and simple way to determine legal motherhood, unlike the unpredictable and time-consuming method of determining the best interests of the child. In fact, courts will almost never see a determination of legal motherhood under a gestational standard because it is really easy to determine who gave birth to a child.

Another strong argument for using gestation as a means to determine legal motherhood is to recognize the physical and emotional toll a gestational mother provides to a child before it is born. The gestational mother contributes an unquantifiable sum of energy and risk into bringing the child into the world, aptly named “sweat equity,” and faces the grueling challenge of labor or the surgical risks of a C-section. In addition to the physical demands of producing a child, the gestational mother has significant prebirth time with the baby in order to form a special emotional bond. Scientific studies show that in utero babies can hear things outside the womb and have a significant connection to their gestational carrier.

The arguments for choosing a gestational carrier for determining legal maternity, however, weaken when one examines the multiple policy pitfalls to this method. First, choosing a gestational carrier over all other methods interferes with private reproductive

121 See generally Hurwitz, supra note 74, at 127 (explaining that ARTs “may separate genetic from gestational components of procreation”); Margalit et al., supra note 20, at 112-16 (discussing how the introduction of ARTs has fundamentally altered the traditional parental paradigm).
123 See Coleman, supra note 122.
124 See Larkey, supra note 17, at 625.
125 See id.
126 See id.
128 See infra notes 129-39 and accompanying text.
If courts use the gestational carrier test in maternity cases where ARTs have been used and the gestational mother never intended to parent, the test is restricting the available options of reproductive choices available to individuals and couples who wish to conceive. ARTs were invented to widen the scope of options available to people who were unable to conceive, and granting gestational mothers legal rights has a chilling effect on commissioning parents from choosing this issue. The chilling effect occurs because now a commissioning individual or couple has to go through the uncertainty of whether or not the gestational carrier will adhere to the agreement and relinquish the child, and the fact that a formal adoption must now take place, the gestational carrier must officially relinquish rights. Essentially, the law is interfering with the intended parents’ intent to parent. As in the best interests of the child standard, this creates a drain on court systems that will now have to deal with adoption cases that a different standard for determining legal maternity could have easily handled.

In addition, the bonding element, cited as a critical reason for choosing a gestational preference between gestational woman and child, can be easily replicated in a short period of time post-birth between another woman and the child. There is scientific evidence that shows that a post-birth connection is crucial for infants in order to have normal attachments later in life. However, it is not necessary for the child to form an attachment to its birth mother in order to sustain a healthy relationship. “Most theorists agree that attachment after birth with a

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129 Larkey, supra note 17, at 625.
130 Coleman, supra note 122, at 525.
131 See id. See generally Assisted Reproductive Technology (ART), NAT’L INST. OF HEALTH (Mar. 22, 2013), http://www.nichd.nih.gov/health/topics/infertility/condition info/Pages/art.aspx (explaining that ARTs are used to help women who cannot conceive).
132 See Coleman, supra note 122, at 525; Susan L. Crockin, Establishing Parentage in Gestational Carrier Arrangements, MASS. CONTINUING LEGAL EDUC., INC. (2009).
133 Larkey, supra note 17.
134 Cf. supra notes 103-107 and accompanying text.
135 See Hurwitz, supra note 74, at 166-67.
136 Id. at 166.
137 Id. at 166-67.
psychological parent, not necessarily a biological one, impacts a child’s ability to develop self-esteem and to establish relationships with others."  Furthermore, it can be argued that surrogates have less of a bond to the surrogate child than with a child they intended to raise because they know from the onset of the agreement that they will be giving the child away after birth, and therefore, the need to form an attachment is not great and perhaps even detrimental.  

Therefore, since the bond argument is weak and can be scientifically refuted, and the other detriments to the standard outweigh the benefits, the historical standard of gestational carrier should be abandoned in order to comport with more modern views of the commission of families.  Instead, the law should evolve with technology and society’s evolution and use the more modern test of genetics for determining legal maternity because it provides a clearer solution for both common and evolving issues of determining motherhood.  

C. The Solution to the Problems of Determining Legal Maternity: Genetics

The third main viewpoint is to base legal motherhood on a genetic tie to the child.  This third approach to determinations in maternity arises more from a case law review rather than a statutory analysis.  In a case of first impression in Ohio, the court held, “[t]he test to identify the natural parents should be, ‘Who are the genetic parents?’”  When the court faced the issue of whether to consider the legal mother, the genetic mother, or the gestational carrier, the court reasoned that “given the relative certainty of DNA blood testing, such a foundation or test for parental identity would be simpler to apply and more certain in results than a[n] . . . intent test.”  The court looked to

138 Id. at 167.  
139 See id.  
140 See supra notes 129-39 and accompanying text.  
141 See infra Part III.C.  
142 See Hurwitz, supra note 74, at 137-39.  
143 See, e.g., id. at 137-38 (providing examples of case law addressing genetic ties).  
144 Belsito v. Clark, 67 Ohio Misc. 2d 54, 64 (Com. Pl. 1994).  
145 Id. at 65.
the UPA and determined that the UPA allowed for a determination of maternity either through gestation or other means, such as DNA, and therefore the court had to resolve which method was preferred in determining legal maternity.\textsuperscript{146} For reasons in addition to simplicity and certainty, the court ultimately chose genetics as the primary method for determining maternity in custody cases.\textsuperscript{147} However, Ohio is not the only state to choose a genetic preference method.\textsuperscript{148} Other states have statutes that give preference to genetic parents.\textsuperscript{149} Connecticut’s statutes state that a “‘[p]arent’ means a biological or adoptive parent.”\textsuperscript{150} In deciding a question of maternity in a surrogacy case, the Connecticut Supreme Court held that, “a gestational carrier who bears no biological relationship to the child she has carried does not have parental rights with respect to that child.”\textsuperscript{151}

Genetics and genetic testing are no longer considered to be as obscure or expensive as it was in the past.\textsuperscript{152} With the advancement in scientific technologies, DNA testing has become a relatively cheap and very reliable method for determining genetic lineage.\textsuperscript{153} In fact, most courts today use DNA testing to determine paternity in cases as a reliable tool that can be transferred to determine legal maternity as well.\textsuperscript{154} In order to understand why the genetic method is so reliable for current and future cases, one must first understand more about the

\textsuperscript{146} See id. at 60.
\textsuperscript{147} See id. at 66.
\textsuperscript{148} See, e.g., CONN. GEN. STAT. ANN. § 45a-707(5) (West 2014).
\textsuperscript{149} See, e.g., id.
\textsuperscript{150} Id.
\textsuperscript{151} Raftopol v. Ramey, 12 A.3d 783, 789 (Conn. 2011).
\textsuperscript{152} See Anne Tergesen, Finding a Few Hundred Cousins, WALL ST. J. (Dec. 10, 2012), http://www.wsj.com/articles/SB1000087239639044358930457763580133547 784 (explaining that genetic testing has become much cheaper and more widely available in recent years).
The main way that courts should determine legal maternity is through genetics, or DNA, specifically nuclear DNA. Nuclear DNA is the main set of chromosomes exchanged in reproduction that exists in the nucleus of every cell. In gametes, sperm and egg cells, only half of the parent’s nuclear DNA is present so that when fertilization occurs the result is a child with equal parts of DNA from the sperm and from the egg. This is different from mitochondrial DNA ("mtDNA"), which exists in the mitochondria in the cell and which is solely transferred from the female genetic provider. Therefore, if a genetic mother has a genetic defect in her mtDNA, her genetic offspring have a 100% chance of having the genetic defect. The science of DNA is important when examining why DNA should determine legal motherhood, not because the law should always track science but to understand why DNA is so reliable and why knowledge of our genetic makeup can be invaluable when dealing with diseases and heritage.

While intent and written agreements should still control in situations where intent is unclear and written agreements do not exist, genetics is the solution the court should look to in determining legal

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155 See infra notes 156-60 and accompanying text.
156 See, e.g., Raftopol, 12 A.3d at 785 n.2, 789 (explaining that only genetic parents have parental rights under Connecticut law). See generally Beverly, 369 F.3d at 529 (explaining that nuclear DNA is preferred because it provides an "extremely high level of certainty of identity").
158 See Deoxyribonucleic Acid (DNA) Fact Sheet, supra note 157.
159 See id.
maternity. One reason to look toward DNA is the historical significance of the "blood tie" in determining familial relationships. Is it not this blood tie that commissioning individuals are seeking when they choose an ART such as surrogacy? The true importance of the blood tie is shown through the extraordinary lengths, both emotional and physical, that couples go through to produce a child that is genetically linked to them. Some commentators go as far as calling the want of a genetic bond the "catalyst" to pursuing surrogacy. There are also cultural and religious ramifications to maintaining a blood tie. For instance, Judaism purports that instead of an afterlife, parents, "live on through their children—a kind of limited genetic immortality." When studying American, non-native kinship structures, well-known anthropologist, David Schneider, reasoned that blood relationships served as an important cultural symbol of unity. Schneider found that, "blood relatives share [a] biogenetic substance [as] a symbol of unity, of oneness, and this is symbolically interchangeable with the symbol of love... [B]iological unity is the symbol for all other kinds of unity including, most importantly, that of relationships of enduring diffuse solidarity." This biological connection is hard to ignore and is evidenced by adopted children's need to find their genetic parents. Culturally, we want our children to look and live like us to build a greater sense of community. While traditional adoptions do not necessarily result in a child of the same ethnical, cultural, or religious background of the adopting couple, a commissioning couple takes extraordinary measures to make sure that

162 See, e.g., Belsito v. Clark, 67 Ohio Misc. 2d 54, 64 (Com. Pl. 1994).
163 See Hurwitz, supra note 74, at 151.
164 See id. at 149, 151.
165 Larkey, supra note 17, at 624.
166 See R. Alta Charo, Biological Determinism in Legal Decision Making: The Parent Trap, 3 TEX. J. WOMEN & L. 265, 280 (1994); Hurwitz, supra note 74, at 151.
167 Charo, supra note 166, at 280-81.
169 Id. at 482.
170 See Hurwitz, supra note 74, at 149.
171 See id. at 151.
the child meets these standards.172

The second reason for preferring a determination on genetics is due to the accuracy of genetic testing, availability of DNA testing, and the benefits to DNA sequencing.173 Law enforcement agencies have utilized DNA testing for identification since as early as 1986.174 Everyone’s DNA is so unique (except in cases of identical twins) that it can be used similar to fingerprints in identifying individuals.175 With a few exceptions produced by ARTs,176 most individuals inherit, in equal parts, genetic material from their father and equal parts genetic material from their mother, making identification of the genetic origins of a child very accurate, usually 99% accurate.177 Additionally, DNA testing is a minimally invasive procedure that can be done with a simple cheek swab or saliva.178 While a lab does have to process the sample, the results do not take as long as the protracted legal dispute required in the best interests of the child standard, and the cost is much less as well.179 A secondary argument for genetic testing is the possibility of gaining knowledge of the predisposition for certain diseases.180 Very few

172 Id. at 149.
173 See infra notes 174-81 and accompanying text.
176 See, e.g., Weintraub, supra note 7 (discussing a child conceived through ARTs with genetic material from two women and one man).
177 See Blakesley, supra note 154, at 382 (stating that paternity tests of fathers are 99% accurate). Since the testing measures are the same for maternity, it holds that DNA tests of maternity would be 99% accurate as well. Id.
179 See id.; What is the Cost of Genetic Testing, and How Long Does it Take to Get the Results?, GENETICS HOME REFERENCE (Oct. 27, 2014), http://ghr.nlm.nih.gov/hand book/testing/costresults (stating that the costs for genetic testing ranges between $100 to over $2,000 and that the time it takes for results to arrive ranges from a few weeks to a few months); cf. supra notes 103-07 (discussing the best interests standard).
180 See generally Regulation of Genetic Tests, NAT’L HUM. GENOME RES. INST., https://www.genome.gov/10002335 (last updated Sept. 2, 2014) (discussing the various uses for genetic testing, such as detecting when an individual might pass a genetic mutation to his or her children). However, this is a controversial topic, even
diseases are always passed from genetic parent to child, yet genetic testing may be a way for parents to know if their child does in fact have that rare genetic disease.\textsuperscript{181} Furthermore, ARTs often, and more increasingly, are using genetic technology to conceive children.\textsuperscript{182} If DNA is so crucial to the process of conceiving children it follows that courts use a system that recognize this importance after the child’s birth to determine legal maternity.\textsuperscript{183}

However, choosing genetics is not a perfect result when dealing with determinations of legal maternity.\textsuperscript{184} For instance, a question arises as to maternity when neither the commissioning woman nor the gestational mother has a genetic link to the child because the parties used a third-party ovum.\textsuperscript{185} This example becomes problematic because it forces us to decide whether we need to treat genetic material as property before a zygote is formed and brings into question whether the donor of the genetic material should retain legal rights to the resulting child.\textsuperscript{186} Regardless of where one stands on the moral and ethical ramifications of classifying genetic material as property, we should treat the donation of ovum, or any genetic material, as we do sperm donation for men.\textsuperscript{187} While the process of ovum donation is more time-consuming and invasive than sperm donation, the result of relinquishment of any future rights to the property, and eventually child,
should be the same. In cases with no genetic ties to a child, the necessity of a written instrument becomes paramount to prove intent, but the complications of this issue expand beyond the scope of this Article.

However, while choosing genetics may not be the perfect answer to decide legal motherhood, it is the best method to follow because it is less problematic than the other methods. It is important to distinguish between a genetic and gestational standard when discussing the differing attempts to handle determinations of maternity. Laws that currently state that maternity should be vested in the biological mother are vague and misleading. It is easy to agree with the dissent in *T.M.H.* when it describes gestation as a very biological process. This confusion and vagueness in the law is an understandable one because before the advent of ARTs motherhood was biological in the sense that only the genetic mother of a child could give birth to that child, making the gestation and genetics of the process of conception inseparable. However, since technology has evolved into separating the distinction between genetics and gestation, it is time for the law to evolve and eliminate the term “biological mother” from our vocabulary and move toward clear terms such as “genetic mother” and “gestational mother.” This is why a revision of the UPA is required—so that more precise language will eliminate future confusion. While the terms themselves do not necessarily provide clarity, utilizing the category of “genetic mother” will help provide guidelines for how states should determine legal maternity

189 See generally Coleman, supra note 122, at 505-14 (discussing in detail the complex issue of gestational agreements and the intent-based test of legal parenthood).
190 See Larkey, supra note 17, at 625; cf. supra Parts III.A-B.
191 See generally Margalit et al., supra note 20, at 109-10 (discussing the different standards for determining legal parenthood in the context of ARTs).
192 See supra notes 39-40 and accompanying text.
194 See Coleman, supra note 122, at 524.
195 See Larkey, supra note 17, at 605-06.
determinations when intent and written agreements are unclear or nonexistent.  

Modifying section 201 of the UPA is the best method for encouraging states to adopt a genetic approach for determining motherhood because the UPA is meant to be a statutory model for states to follow when drafting family law topics, and some states have already modeled their laws similar to the UPA. Since issues regarding parentage and family are issues left to the states under concepts of federalism, the society we live in today calls for a more homogeneous application of determining legal motherhood across state borders. The UPA is a model for states to use but does not force them to conform to a standard of determining legal motherhood.

Currently only eight states have fully adopted the UPA, but that does not mean that portions of the UPA have not been incorporated by other states. In accordance with choosing DNA as the determining factor in determining legal maternity, the UPA should be amended to list the first way to determine a mother-child relationship between a woman and child, when no contract or intent is clear, through the woman’s genetic contribution to the child. Since ART is not a field in decline but a field that is exponentially expanding, it is important to encourage states to implement law to address the complexities of the issue but also to look forward to possible conflicts that could arise in the

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196 See infra Part IV.
197 See § 201, 9B U.L.A. 21; Alexandra Eisman, The Extension of the Presumption of Legitimacy to Same-Sex Couples in New York, 19 CARDOZO J.L. & GENDER 579, 596 (2013) (stating that the UPA was “intended to serve as model legislation on parentage proceedings and promote uniformity among the states”); Naomi Cahn and the Evan B. Donaldson Adoption Institute, Old Lessons for A New World: Applying Adoption Research and Experience to Art, 24 J. AM. ACAD. MATRIM. LAW. 1, 25 (2011) (explaining that some states have adopted the UPA while other states have enacted similar laws).
198 See generally Jill Elaine Hasday, Federalism and the Family Reconstructed, 45 U.C.L.A. L. REV. 1297 (1998) (explaining that family law has always been under the jurisdiction of the states).
199 See § 201, 9B U.L.A. 21 (providing several ways to determine motherhood).
future, such as following examples listed. By amending the UPA, the states have a clear guideline as to how they should determine legal motherhood, and hopefully each state will adopt a test based on genetics to prevent issues such as forum shopping or determining which state law controls when dealing with ART agreements that occur across state borders.

Almost every state has a unique way of dealing with determinations of legal maternity that can cause confusion and forum shopping when commissioning couples look to enter into surrogacy agreements that cross state boarders. These statutes are both complicated and difficult to apply, or are overly simple and detrimental to the parties involved. The best way to resolve this problem would be to amend section 201 of the UPA to give preference to genetic mothers in determining legal maternity and to be precise in drafting statutes to state the genetic mother or gestational mother instead of “biological mother.” As mentioned above, using the genetic method of legal maternity gives courts clear guidelines in cases for same-sex couples, T.M.H., but also for cases where science has outpaced the law; for instance, when at least two women have a biological claim to a child. At a time where more eggs are being frozen and science is mixing genetic material to eliminate diseases in children, amending the UPA will provide guidance for future scenarios of maternity determinations.

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202 See infra Part IV.
203 See supra notes 63-67 and accompanying text.
206 See § 201, 9B U.L.A. 21; supra notes 190-203 and accompanying text.
207 See supra notes 7, 15 and accompanying text.
208 See supra notes 180-82 and accompanying text.
IV. CURRENT ISSUES FOR WHICH GENETIC DETERMINATIONS OF MOTHERHOOD PROVIDE WELL-DEFINED GUIDELINES

A bright-line rule for states to follow is necessary in order for the law to be able to keep pace with both the advancements in ARTs and the increased consumption of ARTs.\textsuperscript{209} Science continues to evolve, and the public’s access to these technologies grows every day.\textsuperscript{210} With the increased use of ARTs and in the absence of a bright-line rule, the court systems will be flooded with cases requesting adjudication of legal motherhood when multiple women have a potential claim to parental rights.\textsuperscript{211} The issue of multiple claims to motherhood based on genetics is not merely an issue for the future, but a current issue that exists today.\textsuperscript{212} Also, with more companies offering egg freezing as an employee health benefit, the use of ARTs and issues surrounding egg donation will only continue to rise.\textsuperscript{213} It may sound like science fiction, but science has been able to produce mice that have two genetic fathers and no genetic mother.\textsuperscript{214} It is important to note, however, that women would not be totally removed from this version of conception because scientists are yet unable to devise a way to carry a child to term without the assistance of a woman’s uterus.\textsuperscript{215} Just recently though, uterine transplants have been successful, allowing women who were previously unable to conceive to have a child. Most strikingly, a thirteen-year-old girl living in New York has three genetic parents—two genetic mothers and one genetic father.\textsuperscript{216} The purpose in creating an ovum with genetic material from two women was to eliminate the possibility of a genetic disease that is passed through the

\begin{footnotes}
\item[209] See Hurwitz, \textit{supra} note 74, at 131-32.
\item[210] See \textit{id.} at 132.
\item[211] See \textit{id.} at 132-33.
\item[212] See, \textit{e.g.}, Weintraub, \textit{supra} note 7.
\item[215] See \textit{id.}
\item[216] Weintraub, \textit{supra} note 7.
\end{footnotes}
When most people think of DNA they consider nuclear DNA that is comprised of 50% genetic material from one’s genetic mother and 50% genetic material from one’s genetic father. However, mtDNA differs from nuclear DNA because mtDNA is solely inherited from genetic mothers with no genetic contribution from genetic fathers. Therefore, if the genetic mother has a genetic defect or disease in her mtDNA, her genetic child has a 100% chance of being born with the genetic defect or disease. In order to avoid passing her genetic defect on to her genetic children, seventeen women in the United States sought a scientific method that allowed scientists to insert mtDNA into an ovum that had only its mtDNA removed, keeping the original nuclear DNA intact. The ovum with mtDNA from one woman, and nuclear DNA from another woman, was then fertilized with the sperm of the commissioning father and the ovum was implanted in the uterus of the woman who contributed the ovum. The resulting child was then born without the genetic defect that the ovum contributor carried in her mtDNA. The children born through this method were predominately a genetic match to the ovum contributor because nuclear DNA provides approximately three billion base pairs of DNA compared to the approximately 16,000 base pairs provided by the mtDNA donor.

When speculating how courts would handle such an issue, legal experts look to genetics in determining a potential legal claim. For example, scholars speculated that because the genetic contribution of

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217 Id.
218 See supra notes 157-58 and accompanying text.
219 See supra note 159 and accompanying text.
220 See supra note 160 and accompanying text.
221 See Weintraub, supra note 7. There are only seventeen children that were born using this technology because the U.S. government stopped the procedure until further review by the FDA. See id.
222 See id.
223 See id.
225 See, e.g., Margalit et al., supra note 20, at 127-28.
mtDNA is so small compared to a contribution of nuclear DNA that most jurisdictions, if not all, would find an mtDNA contributor's contribution insufficient to establish a claim for legal motherhood.\textsuperscript{226} This is likely because standard DNA tests tend to test for nuclear DNA, and the difference in genetic material that both women would provide is so great as to render them significantly different.\textsuperscript{227} The process of using two genetic mothers to produce a healthy child has been banned in the United States since 2001, but is up for consideration in the United Kingdom, and a request to use this technology in human trials was proposed to the FDA in the fall of 2013.\textsuperscript{228} Furthermore, the technology used will continue to evolve and continue to present society with more possibilities for combinations of genetic parents.\textsuperscript{229} Therefore, the law needs to be clear and defined so that when new issues arise because of advancements in ARTs, courts will have well-defined guidelines to follow for determining issues of legal parenthood.\textsuperscript{230}

Along with ethical issues, these cases bring new challenges for dealing with legal parenthood determinations in the law.\textsuperscript{231} In the above case, the mtDNA donor was a true donor and claimed no legal interest in the resulting child; but what if there had been a request for legal maternity from both women? If there was no intent or written

\textsuperscript{226} See, e.g., \textit{id}.


\textsuperscript{230} See \textit{id}.

instrument then both have a legal claim for motherhood.\textsuperscript{232} The courts could decide to decree that the primary donor of genetic material would triumph because the ovum donor donates nuclear DNA that consists of over three billion nucleotides, while the mtDNA donor only donates 16,569 nucleotides.\textsuperscript{233} Because of the significant difference in genetic material provided it could be easy for a court to distinguish between the genetic donors.\textsuperscript{234} In the case of the two genetic fathers, under the genetic test the court would have to find that both men should be granted legal parenthood.\textsuperscript{235}

V. CONCLUSION

Overall, these above cases only highlight that scientific advances are outpacing the law, and clear guidelines choosing genetics as the default for determining maternity have to be set in order for predictable outcomes and clear expectations in maternity cases.\textsuperscript{236} By modifying section 201 of the UPA to give preference to genetic mothers in legal maternity determinations and by utilizing the more precise language of “genetic mother” and “gestational mother” instead of the “biological mother,” lawyers, courts, and legislatures will have well-defined guidelines that not only work across state borders but will be able to evolve with the changing technology of ARTs.\textsuperscript{237} By modifying our current standards, courts will be able to handle legal maternity determinations for a child with four genetic parents, or potentially one genetic parent, and can currently use this method not only in typical maternity cases but in those involving same-sex couples as well.\textsuperscript{238} Since the science of ARTs is based in genetics, it only follows that the courts use the language of science in determining how cases involving ARTs should determine legal maternity.\textsuperscript{239} By utilizing the UPA to advance the preference of genetics over other methods of determining legal maternity, we can achieve judicial efficiency, clear and cost-

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\textsuperscript{232} See supra Part III.
\textsuperscript{233} See Baillie, supra note 224; Chial & Craig, supra note 160.
\textsuperscript{234} See Baillie, supra note 224; Chial & Craig, supra note 160.
\textsuperscript{235} Margalit et al., supra note 20.
\textsuperscript{236} See supra Parts II-III.
\textsuperscript{237} See supra notes 190-208 and accompanying text.
\textsuperscript{238} See supra note 207 and accompanying text.
\textsuperscript{239} See Havins & Dalessio, supra note 229, at 832.
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effective results, and minimal involvement of the law into the personal realm of the family.\textsuperscript{240} Additionally, by utilizing genetics, the law will be able to handle new situations in which one or many genetic parents have contributed to the genetic makeup of a child.\textsuperscript{241} Science will continue to outpace the law, but it is important to have a guideline that will not only work now but will also be adaptable in the future.\textsuperscript{242} For now, that guideline is using genetics for determining legal maternity.

\textsuperscript{240} See supra Part III.C.

\textsuperscript{241} See supra note 207 and accompanying text.

\textsuperscript{242} See Havins & Dalessio, supra note 229, at 825.