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## **Plan B: Pregnancy in the Age of IVF**

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## Plan B: Pregnancy in the Age of IVF

*Gabriella D. Campen\**

### I. Introduction

#### 1. What is IVF and how common is it?

In today's technological age, you would be surprised by the amount of people conceived through in-vitro fertilization (“IVF”). IVF is the most common type of assisted reproductive technology (“ART”).<sup>1</sup> ART is defined by the Center for Disease Control as fertility treatments where eggs or embryos are handled for the purpose of establishing pregnancy.<sup>2</sup> 1.7% of all infants born in the United States each year are conceived using ART.<sup>3</sup> Of the millions of children born annually, nearly a quarter million were conceived through ART.<sup>4</sup>

During IVF, mature eggs are collected from ovaries and fertilized by sperm in a lab, the fertilized egg, commonly known as an embryo, is then transferred to a uterus.<sup>5</sup> The procedure may be done using a woman's own eggs and her partner's sperm or embryos from a known or anonymous donor.<sup>6</sup> Surrogates can also be used in the process.<sup>7</sup> Women may choose IVF for numerous reasons, including damaged or blocked fallopian tubes, endometriosis, impaired sperm production, or even genetic disorders.<sup>8</sup>

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<sup>1</sup> “ART Success Rates”, *Centers for Disease Control and Prevention* (Sept. 2, 2020); available at <https://www.cdc.gov/art/artdata/index.html#:~:text=Although%20the%20use%20of%20ART,year%20are%20conceived%20using%20ART.>

<sup>2</sup> Id.

<sup>3</sup> Id.

<sup>4</sup> Id.

<sup>5</sup> “In-Vitro Fertilization”, *Mayo Clinic* (2020); available at [https://www.mayoclinic.org/tests-procedures/in-vitro-fertilization/about/pac20384716#:~:text=During%20in%20vitro%20fertilization%2C%20eggs,into%20the%20uterus%20\(C\).](https://www.mayoclinic.org/tests-procedures/in-vitro-fertilization/about/pac20384716#:~:text=During%20in%20vitro%20fertilization%2C%20eggs,into%20the%20uterus%20(C).)

<sup>6</sup> Id.

<sup>7</sup> Id.

<sup>8</sup> Id.

This paper discusses considerations for a regulation in the form of pre-natal DNA testing in the IVF process. Part I discusses the emotional effects of IVF, as well as the issue of mistakes in zygote implantation, specifically the mix up of zygotes resulting in the birth of a child to parents which are not their biological match. Part II analyzes the lack of regulations in the IVF industry. Part III introduces legal options available to parents seeking to take action against fertility clinics and doctors involved in a zygote mix up. Part IV compares the lack of mandated DNA testing in IVF to other areas of law where DNA testing is mandated. Part V delivers a possible solution to zygote mix ups by implementing the regulation of pre-natal DNA testing.

Currently, there are not enough safeguards in place for early detection of wrongful pregnancy, nor is there regulation for the process of IVF itself. By mandating the implementation of regulations including non-invasive prenatal paternity testing, early detection is possible, giving the pregnant women more options than she once had. These options will also include legal recourse in case of wrongful life.

## 2. The Emotional and Physiological effects of IVF

When preparing for IVF, women receive injections causing ovulation stimulation for egg extraction.<sup>9</sup> Screenings, often paired with an ultrasound of the ovaries, determine the quality of the woman's eggs and how the patient may respond to ART.<sup>10</sup> In order to induce the body to grow multiple eggs to mature size, women normally inject themselves with a drug called Gondotropins.<sup>11</sup> Human chorionic gonadotropins, which are used to stimulate the final maturation and release of eggs, have side effects which include hot flashes, nausea, and mood

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<sup>9</sup> "In vitro fertilization (IVF)", *Mayo Clinic* (2020); available at [https://www.mayoclinic.org/tests-procedures/in-vitro-fertilization/about/pac-20384716#:~:text=During%20in%20vitro%20fertilization%2C%20eggs,into%20the%20uterus%20\(C\)..](https://www.mayoclinic.org/tests-procedures/in-vitro-fertilization/about/pac-20384716#:~:text=During%20in%20vitro%20fertilization%2C%20eggs,into%20the%20uterus%20(C)..)

<sup>10</sup> Id.

<sup>11</sup> "Side Effects of Injectable Fertility Drugs (Gonadotropins), *Reproductivedacts.org* (2020); available at <https://www.reproductivefacts.org/news-and-publications/patient-fact-sheets-and-booklets/documents/fact-sheets-and-info-booklets/side-effects-of-injectable-fertility-drugs-gonadotropins/>.

swings.<sup>12</sup>

Comprehending the emotional toll that IVF takes on parents, specifically mothers, is essential to the understanding the gravity of harm caused by wrongful implantation. The average success rate in the United States for fresh embryos which resulted in live births is 47.5% for women under 35, 39.6% for women aged 35-37 and 28% for women aged 38-40.<sup>13</sup> The success rate of IVF curves at about age 30, and drops faster at age 35, the drop is then linear down to only 1% live birth success rate by age 45.<sup>14</sup> A recent study in the United Kingdom showed that patients over 35 require multiple cycles of IVF to increase the probability of live birth.<sup>15</sup>

Low success rates are not the only challenges associated with IVF.<sup>16</sup> For example, the time commitments for such an intense treatment will leave disruptions in time spent for families, social activities, and even reduced sexual intimacy.<sup>17</sup> Marital relationships often come under strain from this increased stress.<sup>18</sup> Impending decisions that couples have to make during the IVF process which could have serious lasting effects on their lives also add to such stressors.<sup>19</sup> Decisions made during the IVF process can have moral and religious implications, such as deciding how many embryos will be transferred and what to do with extra eggs or embryos such as freezing, disposing, or donating them.<sup>20</sup> Couples or women undergoing IVF will also have to

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<sup>12</sup> “Side Effects of IVF Medication”, *Southern California Reproductive Center* (July 26, 2016); available at <https://blog.srcivf.com/side-effects-of-ivf-medication>.

<sup>13</sup> “IVF Success Rates For Fertility Clinics in the United States” *Fertilitysuccessrates.com* (2020); available at <https://fertilitysuccessrates.com/>.

<sup>14</sup> “IVF and AGE – Impact of Female Aging on In Vitro Fertilization Statistics”, *Advanced Fertility Center of Chicago* (2020); available at <https://www.advancedfertility.com/ivf-age.htm>.

<sup>15</sup> “Use of Cumulative Live Birth Rate per Total Number of Embryos to Calculate the Success of IVF in Consecutive IVF Cycles in Women Aged > 35 Years”, Meng Zhang, et. Al; *US National Library of Medicine National Institutes of Health*; available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6617928/>.

<sup>16</sup> *Id.*

<sup>17</sup> [https://www.sart.org/patients/a-patients-guide-to-assisted-reproductive-technology/general-information/preparing-for-ivf-emotional-](https://www.sart.org/patients/a-patients-guide-to-assisted-reproductive-technology/general-information/preparing-for-ivf-emotional-considerations/#:~:text=Patients%20have%20rated%20the%20stress,member%20or%20separation%20or%20divore)

[considerations/#:~:text=Patients%20have%20rated%20the%20stress,member%20or%20separation%20or%20divore](https://www.sart.org/patients/a-patients-guide-to-assisted-reproductive-technology/general-information/preparing-for-ivf-emotional-considerations/#:~:text=Patients%20have%20rated%20the%20stress,member%20or%20separation%20or%20divore)

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

decide if they increase the number of embryos transferred, that this may also increase the chance of multiple babies per pregnancy.<sup>21</sup> Patients have rated the stress of undergoing IVF as more stressful than or almost as stressful as any other major life event, such as the death of a family member or divorce.<sup>22</sup>

However, the greatest strain on the marital relationship due to IVF may come from finances. In a study, 41% of Gen Xers and 29% of baby boomers say they ended their marriage due to disagreements about money.<sup>23</sup> The average IVF cycle can cost anywhere from \$12,000 to \$17,000, not including medication.<sup>24</sup> Most people will require more than one round of treatment, some studies suggest that most women can get by with three; while others suggest that number may be close to six.<sup>25</sup> The CDC's Fertility Clinic Success Rates Report stated that out of the 284,385 cycles performed in 2017, there were only 68,908 live births.<sup>26</sup> From these numbers, it is evident that it usually will take more than one cycle of IVF to become pregnant, and insurance does not always cover these expenses.

Only 16 states have passed laws that require insurers to either cover or offer coverage for infertility diagnosis and treatment.<sup>27</sup> Of those states, 14 have laws that require insurance companies to cover infertility treatment.<sup>28</sup> Only two states, California and Texas, have laws that require insurance companies to offer coverage for infertility treatment.<sup>29</sup> Any couple or woman

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<sup>21</sup> Id.

<sup>22</sup> Id.

<sup>23</sup> "This common behavior is the No. 1 predictor of whether you'll get divorced", Catey Hill, *MarketWatch* (Jan. 20, 2018); available at <https://www.marketwatch.com/story/this-common-behavior-is-the-no-1-predictor-of-whether-youll-get-divorced-2018-01-10>

<sup>24</sup> "I.V.F. is Expensive. Here's How to Bring the Cost Down", Na Kim, *N.Y. Times* (June 20, 2019); available at <https://www.nytimes.com/article/ivf-treatment-costs-guide.html?auth=login-email&login=email>

<sup>25</sup> Id.

<sup>26</sup> CDC *supra* note 1.

<sup>27</sup> "State Laws Related to Insurance Coverage for Infertility Treatment", *NCSL* (June 12, 2019); available at <https://www.ncsl.org/research/health/insurance-coverage-for-infertility-laws.aspx>.

<sup>28</sup> Id.

<sup>29</sup> Id.

undergoing IVF will have to take these considerations into account, as IVF clearly puts emotional strains on anyone who undergoes the treatment.

### 3. The New Challenge

An issue currently plaguing women undergoing IVF is the risk of becoming impregnated with a different zygote than their own. My paper will explore the current rights that women undergoing In-Vitro Fertilization (IVF) have and their options regarding termination of a pregnancy when impregnated with the wrong zygote.

### 4. Mistakes in Zygote Implantation

#### a. Mistakes Realized Immediately

There are cases where parents can tell a child is not theirs as soon as the child is born. A couple from New York is currently suing a fertility clinic after a woman gave birth to another couples' babies.<sup>30</sup> The mother, who is Asian, gave birth to two non-Asian babies, and each child was a genetic match to a different couple.<sup>31</sup>

Then there is the case of Malisa Pineda, whose doctor, Rifaat Salem, told her to come back to the clinic two days after her IVF implantation had taken place.<sup>32</sup> Once there, she was lead to an operating room where Dr. Salem inserted a speculum and used an instrument to scratch the interior of her uterus.<sup>33</sup> The next day, Dr. Salem revealed to her that there had been a mistake, and that the wrong embryo had been used during her IVF procedure.<sup>34</sup> Malisa later learned that the painful scraping she'd experience at the clinic just days after her IVF procedure had been part of a dilation and curettage, a procedure used for first-trimester

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<sup>30</sup> "A mother gave birth to other couples' babies because of an IVF mix-up, lawsuit states", Eric Levenson, *CNN* (July 7, 2019); available at <https://www.cnn.com/2019/07/07/us/ivf-baby-wrong-lawsuit/index.html>.

<sup>31</sup> *Id.*

<sup>32</sup> "When Pregnancy dreams become IVF nightmares", Bernice Young, et.al, *Reveal News* (June 1, 2017); available at <https://www.revealnews.org/article/when-pregnancy-dreams-become-ivf-nightmares/>.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

abortions.<sup>35</sup> Malisa and her husband also later learned that the mix-up had been discovered when the embryologist went back into the lab after her IVF procedure in order to preserve her leftover embryos.<sup>36</sup> Malissa and her husband had 14 fertilized eggs, and because Dr. Salem had transferred three into Malissa's uterus, there should have only been 11 left.<sup>37</sup> However, the embryologist then realized that all fourteen embryos remained in the petri dish, and she must have given Dr. Salem the wrong embryos to implant in Malissa's uterus.<sup>38</sup>

#### b. Mistakes Realized in Infancy

Susan Buchweitz was implanted with embryos which were prepared for a different woman, fertilized by that woman's husband.<sup>39</sup> The fertility doctor and the scientist who incubated the embryos knew of the mix-ups within minutes of Buchweitz's IVF procedure.<sup>40</sup> The fertility specialist hid the mistake until the baby was 10 months old, when the Medical Board of California acted on an anonymous complaint from a former worker at the clinic in which Buchweitz had her procedure done.<sup>41</sup>

#### c. Mistakes Realized in Adulthood

Although rare, IVF mix-ups and their discoveries are becoming more exposed as DNA tests increase, including DNA ancestry testing.<sup>42</sup> In the case of Joseph Cartellone, his 24-year-old

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<sup>35</sup> Id.

<sup>36</sup> Id.

<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> "Woman Awarded \$1 Million Over Embryo Mix-Up", *L.A. Times* (Aug. 4, 2004); available at <https://www.latimes.com/archives/la-xpm-2004-aug-04-me-embryo4-story.html>

<sup>40</sup> Id.

<sup>41</sup> Id.

<sup>42</sup> "IVF Errors and Mix-ups", *IMT International* (2020); available at <https://www.imtinternational.com/ivf-errors/>.

daughter thought it would be fun if the whole family took DNA tests during Christmas.<sup>43</sup> When the results returned, the family learned that she could not genetically be his child, and the Cartellone family is now suing Cincinnati's Institute of Reproductive Health.<sup>44</sup>

#### d. Getting to the Root of the Problem

Understanding the complications involved in IVF, Mark V. Sauer, M.D., chair of obstetrics and gynecology at Rutgers Robert Wood Johnson Medical School and a fertility specialist opines, "It's usually a happy story, because it is the miracle of IVF... [however] it is medicine and it is human, so of course there will be breakdowns in the system, there will be errors."<sup>45</sup> Dr. Sauer additionally believes that there is no way to put a name tag on an embryo, and there are going to be people who get distracted, misread, or do things too quickly.<sup>46</sup>

In 2008, a survey of nearly half of all U.S. fertility clinics found that more than 20% of such clinics misdiagnosed, mislabeled, or mishandled reproductive materials.<sup>47</sup> There is no data available to document precisely how often these mishandlings occur.<sup>48</sup> States mandate reporting surgery errors, but there is no tracking of mistakes in family planning services.<sup>49</sup> Most embryo swaps go unnoticed and genetic connections are not tested unless there is a clear racial mismatch.<sup>50</sup> Despite these failure rates, the United States imposes virtually no state or federal

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<sup>43</sup> "Distraught parents want to corral 'Wild West' IVF field after 3 'mix-ups' in 2 months", Sonja Haller, *USA Today* (Aug. 9, 2019); available at <https://www.usatoday.com/story/life/parenting/2019/08/09/distraught-parents-call-regulation-ivf-field-after-mix-ups/1956389001/>.

<sup>44</sup> *Id.*

<sup>45</sup> "Fertility Clinic Mix-Up: How to Choose IVF Center", Kathleen Dohoney, *WebMD* (July 12, 2019); available at <https://www.webmd.com/baby/news/20190712/fertility-clinic-mix-up-how-to-choose-ivf-center>.

<sup>46</sup> *Id.*

<sup>47</sup> "The Fertility Center Regulation Crisis in the United States", Peiffer Wolf Carr, et. Al (Aug. 7, 2019); available at [https://lostembryos.com/wp-content/uploads/2019/08/PWCK\\_Fertility-Center-Regulation-Crisis-Issue-Briefer\\_FINAL.pdf](https://lostembryos.com/wp-content/uploads/2019/08/PWCK_Fertility-Center-Regulation-Crisis-Issue-Briefer_FINAL.pdf).

<sup>48</sup> "What Happens When an IVF Goes Awry?", *Wired* (July 17, 2019); available at <https://www.wired.com/story/when-ivf-goes-awry>

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

oversight of ART.<sup>51</sup> The lack of regulations has resulted in a “wild west” situation where oversight is absent, error reporting is voluntary, and cases of improperly handled embryos are on the rise.<sup>52</sup> Mistakes are discovered at all stages at life, from when a child is born, to when they are 10 months or older. As more and more cases surface, we may learn the truth of just how often these IVF mix-ups occur.

## II. The Lack of IVF Regulation

Since 1981, when the United States saw its first child born from IVF, there has been almost no regulations on the federal level.<sup>53</sup> IVF and abortion were always politically intertwined because abortion adversaries argued that IVF results in the destruction of embryos.<sup>54</sup> When IVF became more prevalent in the United States, the Republican Party controlled the White House and anti-abortion forces prevented federal agencies from making any policy regarding embryo research.<sup>55</sup> Because of this, agencies turned to consumer protection laws to regulate IVF.<sup>56</sup>

### a. Federal Regulations

Regulation has been so delayed that in fact, the latest bill concerning the topic of IVF was the Wyden Bill passed in 1992.<sup>57</sup> Officially known as the Fertility Clinic Success Rate and Certification Act of 1992, this bill requires that each assisted reproductive technology program

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<sup>51</sup> Id at 49.

<sup>52</sup> Id.

<sup>53</sup> See “Comparative Study of IVF Policy and Practice in the United States and Israel”, Milana Bochkur Dratver, *Yale Scientific* (Feb. 16, 2017); available at <https://yalescientific.org/thescope/2017/02/comparative-study-of-ivf-policy-and-practice-in-the-united-states-and-israel/>.

<sup>54</sup> Id.

<sup>55</sup> Id.

<sup>56</sup> Id.

<sup>57</sup> Id.

report annually to the Secretary of Health through the Center for Disease Control.<sup>58</sup> The reports generated under this Act include pregnancy success rates as well as a log distinguishing between embryos used in the lab- those which are certified and those which have applied for certification.<sup>59</sup> Since this bill, there has been almost no federal legislation relating to IVF, and the only legislation to come close to this were stem cell research developments under the Bush administration.<sup>60</sup>

Aspects of IVF which are currently unregulated include how many children may be conceived from one donor, types of medical information which must be supplied from a donor, which types of genetic tests may be performed on embryos, and how many eggs may be placed in a woman.<sup>61</sup>

#### b. State Regulations

Certain states have mandates health insurance coverage for IVF. For example, in Iowa, when a health insurer seeks to deny coverage of in vitro fertilization or other infertility procedures, the couple may argue that the insurer's payment for prior infertility treatments estops the denial of coverage.<sup>62</sup> For example, an insurance company's past payments of medical expenses relating to a couple's infertility problem, including payments for semen analysis, sperm counts, ultrasound on the wife to determine the effectiveness of the insemination procedures, and fertility drugs to induce ovulation, have been held to estop the insurer from denying coverage.<sup>63</sup> By paying these charges, the insurer gave clear meaning to the coverage language that all expenses incurred in connection with the infertility problem would be paid.<sup>64</sup>

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<sup>58</sup> Fertility Clinic Success Rate and Certification Act of 1992, Pub. L. No. 102-493, H.R. 4773, 102<sup>nd</sup> Cong.

<sup>59</sup> *Id.*

<sup>60</sup> See *supra* 51

<sup>61</sup> *Id.*

<sup>62</sup> 80 A.L.R.4th 1059 (Originally published in 1990)

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

### c. Agency Regulations

Most regulation concerning IVF comes from internal professional agencies and clinic self-regulation.<sup>65</sup> The American Society for Reproductive Technology (ASRM), and its reporting arm, Society for Assisted Reproductive Technology (SART) are largely responsible for these self-regulating guidelines.<sup>66</sup> ASRM issues minimum standards for reproductive practices to its member fertility clinics and sperm banks.<sup>67</sup> However, these recommendations are entirely voluntary, widely ignored, and does not address the accuracy of embryo implantation.<sup>68</sup> Law and regulation have not adapted to the advancement in technology of IVF.<sup>69</sup> Again, the “wild west” mentality will allow anything in this industry if it will make money.<sup>70</sup> Due to the lack of regulation, there are limited causes of action currently available for victims of this severe act of negligence.

## III. Legal Options

### 1. Wrongful Birth

In this section, I will explore the existing causes of action women have taken when a problem arises during the IVF process. The terms “wrongful birth” and “wrongful life” are shorthand phrases that describe the causes of action of parents and children when negligent

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<sup>65</sup> See *In Vitro Fertilization and the Law: How Legal and Regulatory Neglect Compromised a Medical Breakthrough*

<sup>66</sup> Carr *supra* note 47.

<sup>67</sup> Id.

<sup>68</sup> Id.

<sup>69</sup> See *supra* 60.

<sup>70</sup> Id.

medical treatment deprives the parents of the option to terminate a pregnancy to avoid the birth of a defective child.<sup>71</sup> “Wrongful life” applies to the causes of action brought by or on behalf of a defective child who claims that but for the defendant doctor’s negligent advice to or treatment of its parents, the child would not have been born.<sup>72</sup> “Wrongful birth” applies to the cause of action where parents claim that negligent advice or treatment deprived them of the choice of avoiding conception or terminating the pregnancy.<sup>73</sup> The distinction between the two is that in wrongful life causes of action a negligent injury to a fetus causes an otherwise normal child to be born in an impaired condition.<sup>74</sup>

This essay will discuss “wrongful birth” actions as they apply to a parent’s cause of action. A "wrongful birth" action is brought by the parent of a child born with an impairment or birth defect.<sup>75</sup> Such an action alleges that the negligence of those charged with prenatal testing or genetic counseling deprived the plaintiffs of the right to make a timely decision regarding whether to terminate a pregnancy.<sup>76</sup> Usually, these decisions are made due to the likelihood of the plaintiff’s child being born physically or mentally impaired.<sup>77</sup> This cause of action will intertwine with the proposed solution of introducing early-on DNA testing as to give a parent the knowledge of impregnation with the wrong zygote and a choice as to what decision to make regarding the pregnancy.

A majority of states recognize wrongful-birth claims, and at least twenty-three states recognize the claim by common law judicial decision.<sup>78</sup> A minority of jurisdictions decline to

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<sup>71</sup> *Procanik v. Cillo*, 97 N.J. 339, 347 (N.J. August 1, 1984)

<sup>72</sup> *Id.* at 348.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> 83 A.L.R.3d 15,20.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> *Plowman v. Fort Madison Cmty. Hosp.*, 896 N.W.2d 393, 399 (Iowa 2017) *See, e.g., Keel*, 624 So. 2d at 1029; *Turpin v. Sortini*, 31 Cal. 3d 220, 182 Cal. Rptr. 337, 643 P.2d 954, 965 (Cal. 1982) (en banc); *Lininger ex rel. Lininger v. Eisenbaum*, 764 P.2d 1202, 1208 (Colo. 1988) (en banc); *Rich v. Foye*, 51 Conn. Supp. 11, 976 A.2d 819, 824 (Conn. Super. Ct. 2007); *Garrison*, 581 A.2d at 291; *Haymon v. Wilkerson*, 535 A.2d 880, 884-85 (D.C.

recognize wrongful birth actions, however, there have been developments which explain a trend toward judicial acceptance of wrongful birth suits.<sup>79</sup> It has been generally recognized that the infant's parents may recover from the tortfeasor for the expenses of the unsuccessful operation, the pain and mental suffering due to the unexpected occurrence or continuation of pregnancy, the medical complications stemming from the pregnancy, the costs of delivery, lost wages, and loss of consortium.<sup>80</sup>

Advancements in prenatal care have resulted in an increased ability of health care professionals to predict and detect the presence of fetal defects, and this will likely become more common in the future.<sup>81</sup> The decision in *Roe v. Wade* established a women's right to choose to terminate a pregnancy free from state interference before the fetus is viable; as a result, it is possible for prospective parents to know the risk of defects in the fetus and to have the choice to terminate a pregnancy on the basis of this knowledge.<sup>82</sup>

The nature of the tort of wrongful birth is not due to a defendant causing injury or harm to the child, but, whether the defendants' negligence was the proximate cause of the parents' being deprived of the option of avoiding a conception.<sup>83</sup> In the case of a pregnancy, this would include

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1987); *Kush v. Lloyd*, 616 So. 2d 415, 423-24 (Fla. 1992) (per curiam); *Clark v. Children's Mem'l Hosp.*, 2011 IL 108656, 955 N.E.2d 1065, 1072, 353 Ill. Dec. 254 (Ill. 1987); *Siemieniec v. Lutheran Gen. Hosp.*, 117 Ill. 2d 230, 512 N.E.2d 691, 705-06, 111 Ill. Dec. 302 (Ill. 1987), *overruled in part by Clark*, 955 N.E.2d at 1087; *Bader v. Johnson*, 732 N.E.2d 1212, 1220 (Ind. 2000); *Pitre v. Opelousas Gen. Hosp.*, 530 So. 2d 1151, 1163 (La. 1988); *Reed v. Campagnolo*, 332 Md. 226, 630 A.2d 1145, 1152 (Md. 1993); *Viccaro*, 551 N.E.2d at 11; *Greco v. United States*, 111 Nev. 405, 893 P.2d 345, 348 (Nev. 1995); *Smith v. Cote*, 128 N.H. 231, 513 A.2d 341, 348 (N.H. 1986); *Schroeder v. Perkel*, 87 N.J. 53, 432 A.2d 834, 840 (N.J. 1981); *Becker v. Schwartz*, 46 N.Y.2d 401, 386 N.E.2d 807, 813, 413 N.Y.S.2d 895 (N.Y. 1978); *Tomlinson v. Metro. Pediatrics, LLC*, 275 Ore. App. 658, 366 P.3d 370, 386 (Or. Ct. App. 2015), *review granted*, 359 Ore. 847, 383 P.3d 847, 2016 WL 6693689 (2016); *Owens v. Foote*, 773 S.W.2d 911, 913 (Tenn. 1989); *Jacobs v. Theimer*, 519 S.W.2d 846, 849 (Tex. 1975); *Naccash v. Burger*, 223 Va. 406, 290 S.E.2d 825, 830 (Va. 1982); *Harbeson v. Parke-Davis, Inc.*, 98 Wn.2d 460, 656 P.2d 483, 488 (Wash. 1983) (en banc); *James G. v. Caserta*, 175 W. Va. 406, 332 S.E.2d 872, 882 (W. Va. 1985); *Dumer v. St. Michael's Hosp.*, 69 Wis. 2d 766, 233 N.W.2d 372, 377 (Wis. 1975); *see also Phillips v. United States*, 508 F. Supp. 544, 551 (D.S.C. 1981) (stating South Carolina would recognize the action). *But see* cases not allowing wrongful birth actions Me. Rev. Stat. Ann. tit. 24, § 2931 (West, Westlaw current through ch. 1 of the 2017 Reg. Sess.).

<sup>79</sup> Id. at 400.

<sup>80</sup> 83 A.L.R.3d 15, 20

<sup>81</sup> Id.

<sup>82</sup> Id. at 401.

<sup>83</sup> *Keel v. Banach*, 624 So. 2d 1022, 1029 (Ala. 1993)

making an informed decision either to terminate the pregnancy or to give birth to a potentially defective child.<sup>84</sup> The Court held that the parents of genetically or congenitally defective children may maintain an action for wrongful birth if the birth was the result of the negligent failure of the physician to discover and inform the parents of the existence of fetal defects.<sup>85</sup>

Courts have discussed the public policy implications of allowing wrongful birth actions.<sup>86</sup> For example, in *Canesi v. Wilson*, 158 N.J. 490, 501 (N.J. June 17, 1999), the court stated, “A wrongful birth cause of action is predicated on a woman’s right to determine for herself whether or not to continue or terminate her pregnancy.”<sup>87</sup> In *Bader v. Johnson*, the courts reasoned that failure to recognize claims for wrongful birth would immunize those in the medical field from liability for their performance.<sup>88</sup> The recognition of wrongful birth actions would also encourage more accurate prenatal testing.<sup>89</sup> This could possibly include prenatal DNA testing, as people should have the right to either accept or reject a parental relationship, and the deprivation of this right by negligent conduct of another creates the cause of action of wrongful birth.<sup>90</sup>

## 2. Emotional Distress

Parents undergoing IVF only to give birth to another couple’s child often suffer from emotional distress.<sup>91</sup> As such, this can also be considered a cause of action.<sup>92</sup> Courts usually do not let plaintiffs recover for standalone emotional harm – there must be a physical injury.<sup>93</sup> Courts have acknowledged that emotional distress is not one that our law expects

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<sup>84</sup> Id.

<sup>85</sup> Id.

<sup>86</sup> *Canesi v. Wilson*, 158 N.J. 490, 535 (N.J. June 17, 1999)

<sup>87</sup> Id. at 501.

<sup>88</sup> *Bader v. Johnson*, 732 N.E.2d 1212, 1219-20 (Ind. 2000)

<sup>89</sup> *Plowman v. Fort Madison Cmty. Hosp.*, 896 N.W.2d 393, 408 (Iowa June 2, 2017)

<sup>90</sup> *Canesi v. Wilson*, 158 N.J. 490, 501 (N.J. June 17, 1999)

<sup>91</sup> “Reproductive Negligence:”, Dav Fox, Col. L. Rev. 117, 1; available at <https://columbia lawreview.org/content/reproductive-negligence/>.

<sup>92</sup> Id.

<sup>93</sup> Id.

people to defend themselves against.<sup>94</sup> As in other cases of negligence, a physician who has deprived a person from becoming a parent should be required to make amends for the damage for which they have proximately caused.<sup>95</sup> Claims for emotional damages stand upon a different footing, failing to inform the mother deprives the parents from the option to accept or reject a parental relationship with the child and thus causes them to experience mental and emotional anguish upon their realization of wrongful pregnancy.<sup>96</sup> Courts have ruled that a monetary equivalent for distress is an appropriate measure of the harm suffered by parents, which derived from loss of right to abort a fetus.<sup>97</sup> Courts have come to recognize that mental and emotional distress is just as real as physical pain, and that the valuation is no more difficult, and damages for such distress have been ruled allowable in an increasing number of contexts.<sup>98</sup>

States such as New York and Connecticut do not require a physical injury as an element for negligent infliction of emotional distress, which other jurisdictions do.<sup>99</sup> It has also been noted that significant emotional stress routinely accompanies ART procedures, furthering the viewpoint that reasonable healthcare professionals are aware of the heightened potential for emotional distress that negligence can cause in these cases.<sup>100</sup> Clinics have reported that couples attempting IVF show an early attachment to the embryos, even naming them, and can experience depression if there is not a successful implantation.<sup>101</sup> Many couples bear an emotional, physical, and financial expense, and this should be reasonably apparent to the ART practitioner.<sup>102</sup> Courts have held that it is reasonable for ART

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<sup>94</sup> Id.

<sup>95</sup> *Berman v. Allan*, 80 N.J. 421, 432 (N.J. January 1, 1979)

<sup>96</sup> Id. at 433.

<sup>97</sup> Id.

<sup>98</sup> Id.

<sup>99</sup> *Witt v. Yale-New Haven Hosp.*, 51 Conn. Supp. 155, 164, 977 A.2d 779, 786 (2008)

<sup>100</sup> Id. at 165.

<sup>101</sup> *Davis v. Davis: What About Future Disputes?*, 26 Conn. L. Rev. 305, 309

<sup>102</sup> *Witt* at 166.

practitioners to appreciate the fact that the level of fear or anxiety created by the loss of opportunity to conceive a child with one's spouse could likely result in emotional distress severe enough to result in illness or even bodily harm.<sup>103</sup>

There have also been cases in which plaintiffs have sought damages for the emotional harm experienced by their having been deprived of the opportunity of experiencing pregnancy, prenatal bonding, and the birth of their child.<sup>104</sup> A plaintiff may produce evidence sufficient to guarantee a claim by showing the foreseeability of imminent emotional distress coupled with medical affidavits attesting to the objective manifestations of their emotional trauma.<sup>105</sup>

### 3. Inadequate protections

There are existing legal remedies which do not adequately protect the interests of women and families who pursue negligence claims arising out of fertility treatments. Professional malpractice and negligent -infliction claims tend to protect against physical or economic harms.<sup>106</sup> Contract claims have failed because specialists make sure to avoid promising any specific results of the reproductive care they provide, and even property law has been thought to apply to reproductive negligence cases involving misplaced material.<sup>107</sup> From these failed causes of action, wrongful birth and emotional distress remain the leading and most effective ways to bring successful lawsuits against the doctor's, embryologists, and clinics in which these mix-ups occur.

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<sup>103</sup> Id. at 169.

<sup>104</sup> *Perry-Rogers v. Obasaju*, 282 A.D.2d 231, 231, 723 N.Y.S.2d 28, 29 (App. Div. 1st Dept. 2001)

<sup>105</sup> Id. at 232.

<sup>106</sup> Fox *supra* note **Error! Bookmark not defined.**

<sup>107</sup> Id.

#### IV. Lack of Mandated Testing

Implementing prenatal DNA testing as a regulation during the process of IVF is an action which can give potential parents peace of mind and the knowledge to make a choice about their pregnancy. Currently, DNA testing is not mandated, resulting in parents being put in precarious positions. Prenatal paternity testing could be the answer to preventing such disastrous results.

##### 1. What is the Non-Invasive Prenatal Paternity Test?

DNA Diagnostics center (DDC) has developed the first non-invasive prenatal paternity test which requires just a simple blood draw from the mother.<sup>108</sup> Free-floating fetal DNA combines with the mother's DNA by passing through the placenta into the mother's bloodstream.<sup>109</sup> This also ensures that there is not lingering DNA found in the mother's system from previous pregnancies.<sup>110</sup> DNA testing provides results for both the mother and father's DNA, as a blood sample is taken from the mother and a cheek-swap sample from the possible father.<sup>111</sup> A woman must be at least 7 weeks pregnant to test and results are posted to a secure online account with the DDC within 7 business days.<sup>112</sup> The only caveat is that this test cannot be performed if a mother is pregnant with twins or multiples due to the fact that the fetal DNA is isolated from the mother's DNA but cannot be isolated from other fetal DNA.<sup>113</sup> However, if

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<sup>108</sup> "DNA Diagnostics Center (DDC), The World's Largest Provider of Private DNA Paternity Tests, Announces the Company's Exclusive License for the First Non-Invasive Prenatal Paternity Test Using SNP Microarray Technology", *DNA Diagnostics Center* (Aug. 11, 2011); available at <https://dnacenter.com/blog/dna-diagnostics-center-ddc-worlds-largest-provider-private-dna-paternity-tests-announces-companys-exclusive-license-first-non-invasive-prenatal-paternity-test-using-snp-microa/>.

<sup>109</sup> "Can I Get a Paternity Test While Pregnant?", DDC (2020); available at <https://dnacenter.com/paternity-testing/non-invasive-prenatal-paternity-testing/#:~:text=Yes%2C%20you%20can%20get%20a.test%20accredited%20by%20the%20AABB.>

<sup>110</sup> DDC supra note 110

<sup>111</sup> DDC supra note 111

<sup>112</sup> Id.

<sup>113</sup> Id.

the fetal DNA is taken from the womb, providing multiple samples, a biological match is more likely than not genetically related to the parent which was tested.<sup>114</sup> If the results come back inconclusive, however, potential parents may have to undergo more testing to determine if there is a genetic match.<sup>115</sup> Donor gametes would have to be tested using cheek-swab samples.<sup>116</sup> It is helpful to find out the child's paternity by the 7-8 week mark of pregnancy because medical abortions can be performed up to the 10 week mark of pregnancy.<sup>117</sup> Done early enough, this paternity test will enable the pregnant women to find out at the earliest possible time if there has been a zygote mix-up. Below are instances in where DNA testing is mandated.

## 2. Instances where DNA Tests are Mandated

### a. Establishing Paternity and Child Support

DNA testing is now required in certain family law situations to resolve questions of parentage.<sup>118</sup> In matters of paternity, certain statutes empower family courts to order DNA testing of both children and any purported parents at request of either party or the court's own discretion.<sup>119</sup> DNA test results can mean the difference between child support and no child support.<sup>120</sup> The results can even be used to relieve someone from child support if the tests show that they are not the biological father.<sup>121</sup> Anytime children are born to unmarried parents, making the biological father the legal father is not automatic.<sup>122</sup> In a paternity case, either the man can

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<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> "What Are the Different Types of Abortion?", Stephanie Watson, *Healthline* (Dec. 6, 2018); available at <https://www.healthline.com/health/types-of-abortion#medical-abortion>.

<sup>118</sup> "Do I Need a DNA Paternity Test for Child Support?", *DDC* (Jul. 31, 2014); available at <https://dnacenter.com/blog/need-dna-paternity-test-child-support/#:~:text=DNA%20maternity%20testing%20and%20paternity,to%20resolve%20questions%20of%20parenta>  
ge.

<sup>119</sup> 84 A.L.R.4th 313, 9

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

<sup>122</sup> "Paternity", *Legal Assistance Center* (2020); available at <https://legalassistancecenter.org/get-help/paternity/>.

agree that he is the legal father or a DNA test will be used.<sup>123</sup> Until a man is determined to be the legal father of a child, the court has no power to order custody, making DNA testing vital when it comes to custody and child support claims.<sup>124</sup> A paternity testing will also lay the groundwork for the court to consider not only legal and physical custody, but also parenting time for the father.<sup>125</sup> Complaints to establish paternity may be brought by not only the prospective father, but also the mother, child, the child's guardian, or even a grandparent.<sup>126</sup> If there is a case where there is more than one alleged father, the court will also order proceedings against all alleged fathers named by the client.<sup>127</sup> In New Jersey, for example, there is an Office of Child Support and Paternity Programs (OCSPP) which will start these proceedings.<sup>128</sup> The state can also order that a DNA test be done.<sup>129</sup> For instance, in New York, if there is a disagreement about who the biological father of the child is, the Court may order a DNA test on the mother, possible father, and the child.<sup>130</sup> A paternity case may also be started in Family Court for an Order of Filiation, which is a court order that names a man as the father of the child.<sup>131</sup> An Order of Filiation would give the father the right to custody, visitation, and the responsibility of child support.<sup>132</sup> The Order of Filiation can be done on consent, but if so it is very hard to change so the Court recommends that there are no doubts, which can be helped by a DNA test.<sup>133</sup>

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<sup>123</sup> Id.

<sup>124</sup> Id.

<sup>125</sup> Id.

<sup>126</sup> "Establishing Paternity in Court", Jeff Wolf, *MassLegalHelp* (Jul. 2013); available at <https://www.masslegalhelp.org/children-and-families/establishing-patrnity>.

<sup>127</sup> "Establishing Paternity Fact Sheet", *NJ Child Support* (2020); available at <https://www.njchildsupport.org/Resources-Forms/Other-Resources/Family-Issues-Fact-Sheet/Establishing-Paternity-Fact-Sheet#:~:text=An%20alleged%20father%20can%20be,Paternity%20Opportunity%20Program%2C%20or%20POP>.

<sup>128</sup> Id.

<sup>129</sup> "DNA Test", *NY Courts* (2020); available at <https://www.nycourts.gov/courthelp/Family/DNAtest.shtml>.

<sup>130</sup> Id.

<sup>131</sup> Id.

<sup>132</sup> Id.

<sup>133</sup> Id.

In New Jersey, there are similar circumstances under which DNA testing is mandated.<sup>134</sup> A Court may order the child or other parties to submit a DNA test in a contested paternity case and often do not accept tests which are done at home.<sup>135</sup> A Court will also consider certain factors when ordering a paternity test, such as the facts surrounding the presumed or acknowledged father's discovery of his possible non paternity.<sup>136</sup> The degree of physical, mental, and emotional harm that may result to the child following the results of the paternity testing will also be considered.<sup>137</sup> Lastly, the Court will take into account the child's interest in knowing their family and genetic background.<sup>138</sup>

#### b. Inheritance Rights

There are a few other instances where a DNA paternity test would be required including inheritance rights.<sup>139</sup> In situations where inheritance rights are in dispute a court may order a DNA test to quickly put to rest any doubts and to make sure people receive what is rightfully theirs.<sup>140</sup> These inheritance benefits can also include social security and life-insurance of a deceased mother or father where a beneficiary would have to provide proof of paternity.<sup>141</sup> If a child has been adopted or has been conceived through donors they may also need paternity testing for inheritance and benefits as well.<sup>142</sup>

#### c. Immigration

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<sup>134</sup> "Where is a Man a Father? Paternity in New Jersey", *LSNJLAW* (2020); available at <https://www.lsnjlaw.org/Family-Relationships/Paternity/Pages/Paternity-in-NJ.aspx>.

<sup>135</sup> *Id.*

<sup>136</sup> *Id.*

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> "5 Legal Situations Requiring a DNA Paternity Test", *DDC* (2020); available at <https://dnatesting.com/5-legal-situations-requiring-a-dna-paternity-test/>.

<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

Finally, DNA testing is also required in the contexts of immigration to prove paternity and close family relationships when other documents are not available.<sup>143</sup> The government may also rely on paternity to administer programs such as Temporary Aid to Needy Families (TANF).<sup>144</sup> TANF is a program which assists families with children when the parents or other responsible adults cannot provide for the family's basic needs.<sup>145</sup> These state TANF programs are designed to help get families up on their feet and get the children of these families the help and support that they need in order to be cared for in their own homes.<sup>146</sup> Another instance where the government would require DNA testing also involves immigration and it is when U.S. citizenship is transmitted from parent to child.<sup>147</sup> A person may have a statutory right to United States citizenship through certain familial relationships, and, derivative citizenship is granted to all foreign-born children of either American citizen parent under the Immigration and Nationality Act.<sup>148</sup> When a U.S. parent gives birth abroad, they will transmit their citizenship to their child, however, they must establish a biological relationship with the child.<sup>149</sup> DNA testing is the only biological testing method accepted by the U.S. department of state, and may also request that applicants for a U.S. passport or immigrant visa establish relationships using DNA testing.<sup>150</sup> DNA testing is mandated in these circumstances, which strike a similar resemblance to the circumstances in which DNA testing should be mandated for IVF regulations. The policy behind these mandated tests is to ensure that the child is biologically related to their parent, and

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<sup>143</sup> Id.

<sup>144</sup> DDC *supra* note 118.

<sup>145</sup> "What is TANF", *Human and Health Services (HHS)* (2020); available at <https://www.hhs.gov/answers/programs-for-families-and-children/what-is-tanf/index.html#:~:text=TANF%20stands%20for%20Temporary%20Assistance.to%20run%20the%20TANF%20program>.

<sup>146</sup> Id.

<sup>147</sup> "Information on DNA Testing", *U.S. Department of State* (2020); available at <https://travel.state.gov/content/travel/en/legal/travel-legal-considerations/us-citizenship/US-Citizenship-DNA-Testing.html>.

<sup>148</sup> 175 A.L.R. Fed. 67, 1b

<sup>149</sup> Id.

<sup>150</sup> Id.

then allowing the parent to have the responsibilities and privileges that comes with raising a child. Courts clearly find a similarity between these areas and IVF. Just as these areas are regulated by DNA testing, so should IVF.

#### V. How DNA Testing Could Help

Currently couples who are wrongfully impregnated file medical malpractice lawsuits and assert negligence and/or emotional distress claims against their providers. Without any regulation in the ART world, there is not much else that can legally be done. If DNA testing were implemented, it would give women who were wrongfully impregnated the knowledge in order to make a choice about their bodily autonomy. Women would then be free to choose whether to get an abortion or become the surrogate carrier for the couple who are the genetic parents. If DNA testing were implemented into a routine follow-up, as part of the IVF procedure, this would also put medical providers on guard. The early, on-set discovery of this mix-up could save the parents of even more emotional trauma because they would not have to carry someone else's child to term, and also would not suffer a loss of bodily autonomy.

There is a social stigma related to IVF, hence the lack of regulations mentioned above. If doctors continue to commit malpractice, and even in certain cases hide it until the mistake is found out, then this stigma will continue. Enforcing regulations, beginning with DNA testing, will start the processes of ending this stigma that surrounds IVF in general. This will also have a domino effect of easing the emotional distress on couples undergoing IVF because there will be more regulation in place to protect them.

As discussed above, given the frequency of present DNA testing requirements, expanding such requirement to encompass IVF is a natural progression. As regulations are already non-existent, DNA testing could be the foray into the beginning of further regulations which can take place before the embryo is transferred. If stricter regulations begin to materialize, fertility clinics could finally feel the pressure to start monitoring their doctors and put more stringent guidelines

in place. Even if women going into IVF become more aware of these potential mix-ups and are educated about the procedure and lack of regulations, they can go into the procedure with a critical eye and also add pressure.

Once women have the knowledge of a potential mix-up, they can decide for themselves what actions will take place next. First, women have the right to an abortion under *Roe v. Wade*, and this choice should also be afforded to them in the event of a mix-up. Second, women should have the option to potentially become a surrogate to someone else's child and receive compensation. This early detection will also put fertility clinics on notice that the misplaced embryo may have either ended up in another woman or prevent it from ending up in another woman in the event of a mislabeling. Lastly, the fertility clinic should also be held accountable for their negligence and should be subject to fines imposed by failure to follow this regulation or compensate the women for their failed IVF procedure, and as a remedy compensate for any future procedures she may need as a result of the mix-up.

These proposed measures should be mandated by professional organizations, using punitive repercussions such as fines. Further regulations could also include their reporting of any mix-ups and repercussions for falsifying any records related to their reporting. DNA testing could also open the floodgates for even more regulations in the IVF industry.

## VI. Conclusion

It is clear that IVF mix-ups are happening all over the country and are brought to light frequently. Although DNA testing exists, is cost effective, and is a simple solution, it cannot be mandated unless the IVF industry becomes regulated. Since its invention, IVF has helped countless couples conceive children who otherwise may not have been able to. With advances in technology, like any other industry, comes more problems. IVF patients who are failed by their healthcare provider are once again filed by our legal system without regulations.

DNA testing could open the floodgates for more regulations and begin to break down the stigma which surrounds the industry. Even though there are causes of actions available to women impacted by embryo mix-ups, prevention and early knowledge can greatly reduce the problem from getting that far. These couples have already spent so much on IVF, and medical malpractice suits are not known to be the most cost-effective, therefore the earlier the detection, the better the results. In addition, the faster the mix-up is found out and corrected, the faster harm can be minimized and the woman or couple can get on the right track in order to have a baby.