

FAMILY LAW—EGG DONATION AND STEM CELL RESEARCH—EGGS FOR SALE: THE SCRAMBLED STATE OF LEGISLATION IN THE HUMAN EGG MARKET

I. INTRODUCTION

The world has seen the rapid rise of numerous medical technologies that were outside the realm of possibility just a few decades ago.¹ These developing technologies, although generally providing incredible enhancement to our lives, have also created an equally incredible legal tangle.² Couples who would never have had children in earlier times are now able to reproduce with the help of science—and a host of doctors, donors, and mid-dlemen who are involved in the process.³ A survey of existing legislation reveals a glaring disparity in how human eggs⁴ are currently regulated in the United States depending on the purpose for which they are used.⁵ Human eggs are harvested and used for two purposes: reproduction and research (stem-cell and human cloning); both of which must essentially compete for eggs from a small pool of willing donors.⁶ Egg donors⁷ are compensated very differently depending on the intended use for their eggs: donors for reproductive purposes may receive substantial compensation, whereas egg

1. See *infra* Part II.

2. See *infra* Part III.

3. See *infra* Part II; see also SCOTT CARNEY, *THE RED MARKET* 113 (2011). “The business features well-meaning doctors alongside assembly-line charlatans, desperate parents, and unlikely entrepreneurs, all competing for one source of raw materials: women of childbearing age.” *Id.*

4. BLACK’S MEDICAL DICTIONARY 480 (42d ed. 2010). A human egg or oocyte is “[a]n immature ovum.” *Id.* See also *ASSESSING THE MEDICAL RISKS OF HUMAN OOCYTE DONATION FOR STEM CELL RESEARCH: WORKSHOP REPORT*, INSTITUTE OF MEDICINE AND NATIONAL RESEARCH COUNCIL 14 (Linda Giudice, Eileen Santa & Robert Pool, eds., 2007) [hereinafter *IOM Report*] (explaining that “[w]hen a baby girl is born, her ovaries contain roughly 2 million oocytes, each encased in a protective covering called a follicle”). “At the time of a woman’s first menstrual period, she still has 400,000 or so of these primordial follicles, and by the time of menopause they are almost all gone . . .” *Id.*

5. See *infra* Appendix A: Fifty State Survey of Egg Donation, Stem-Cell, and Human Cloning Legislation [hereinafter *Fifty State Survey*]. Westlaw search criteria: ova or egg or oocyte /p compensation; oocyte /p consideration; “human egg” /p consideration or compensation; embryo & “stem cell” or “human cloning.”

6. See *infra* Part II.

7. The word “donor” is misleading because it implies a charitable gift. See Thomas Murray, *New Reproductive Technologies and the Family*, in *NEW WAYS OF MAKING BABIES* 51, 64 (Cynthia B. Cohen ed., 1996) (“Despite the repeated references to donors of both ovum and sperm, paying individuals for their biological products makes them vendors, not donors,” thus placing “the interactions between the parties squarely in the marketplace.”).

donors for research generally do not receive any compensation.⁸ Existing legislation reflects a prevalent unwillingness to condone payment for eggs used for research, particularly human cloning, because large quantities of human embryos are manipulated and destroyed in the research process.⁹ The public's repugnance toward human cloning, often motivated by misconceptions or individual moral viewpoints, has resulted in a crazy quilt of state and national legislation that gives bad actors wide latitude to engage in improper or unethical treatment of both donors and recipients of donor eggs.¹⁰

Few states have enacted legislation to protect egg donors; there are no systematic regulations to ensure that donors and recipients are fully informed about the risks of the egg harvesting procedures—which are considerable—and, consequently, there is little case law to provide guidance to courts in fashioning a remedy.¹¹ Mounting evidence shows that the egg-harvesting procedure is far riskier than was previously thought and can cause women to suffer serious complications, including ovarian torsion, ovarian hyperstimulation syndrome, massive fluid build-up in the abdominal cavity, miscarriages, blood clots, stroke, sterility, renal failure, and death, causing many clinicians and commentators to question whether it is even possible for donors to give “informed consent.”¹² These complications are particularly alarming in light of the fact that donors are chosen *because* they are in good health prior to donation.¹³

Although commentators have examined various legal, moral, and ethical issues involved with eggs used for reproductive purposes or for stem cell research, the intertwined relationship between these markets has largely been ignored.¹⁴ Many commentators now agree that the long-term risks to

8. See *infra* Part II.D.

9. See *infra* Part II.D and Part III.A; see also Ronald Chester & Robert Sackstein, *Embryonic Stem Cell-Based Therapeutics: Balancing Scientific Progress and Bioethics*, 20 HEALTH MATRIX 203, 207–16 (2010) (analyzing whether “4-6 day old human embryos” used in stem-cell and human-cloning research are human beings from various religious, moral, and scientific perspectives and discussing the often polarizing controversy surrounding this question).

10. See *infra* Part II.D and Part III.

11. See *infra* Part III.

12. See *infra* Part II.B.

13. See Simón Marina et al., *Oocyte Donor Selection From 554 Candidates*, 14 HUMAN REPROD. 2770, 2774 (1999) (“[Y]ounger women are more altruistic, have had fewer sexual partners, and have a lower risk of venereal disease. According to our experience, the student receiving economic compensation is the most suitable donor and the one that recipients accept best.”); Jennifer Schneider, *Fatal Colon Cancer in a Young Egg Donor: A Physician Mother’s Call for Follow-up and Research on the Long-term Risks of Ovarian Stimulation*, 90 FERTILITY & STERILITY 1.e1, 1.e1 (2008).

14. See, e.g., Lisa Hird Chung, *Free Trade in Human Reproductive Cells: A Solution to Procreative Tourism and the Unregulated Internet*, 15 MINN. J. INT’L L. 263, 265 (2006); Gregory Dolin, *A Defense of Embryonic Stem Cell Research*, 84 IND. L.J. 1203, 1257 (2009);

donors are substantial and that existing regulation is insufficient to protect women from exploitation or unethical practices, such as fraud, mishandling or destruction of embryos, misrepresentation or deception about the risks involved with the harvesting process, egg swapping or stealing, predatory advertising, and failure to disclose conflicts of interest.¹⁵

Another growing concern is that providers and clinics often outsource the recruitment of donors to independent egg brokers who are not subject to ethical guidelines.¹⁶ Because independent egg brokers and egg donor agencies are not clinics or physicians, they are not required to join a professional organization that provides ethical guidelines for appropriate conduct, such as the American Medical Association (AMA), American Society of Reproductive Medicine (ASRM), or the Society for Assisted Reproductive Technology (SART).¹⁷ For this reason, these entities are able to bypass regulations, and the providers or clinics that utilize their services are not directly tainted by ethical or fraudulent activity.¹⁸

Pamela Foohey, *Paying Women for Their Eggs for Use in Stem Cell Research*, 30 PACE L. REV. 900, 903 (2010); Lars Noah, *Assisted Reproductive Technologies and the Pitfalls of Unregulated Biomedical Innovation*, 55 FLA. L. REV. 603, 603 (2003); J. Brad Reich & Dawn Swink, *You Can't Put the Genie Back in the Bottle: Potential Rights and Obligations of Egg Donors in the Cyberprocreation Era*, 20 ALB. L.J. SCI. & TECH. 1 (2010); O. Carter Snead, *Science, Public Bioethics, and the Problem of Integration*, 43 U. C. DAVIS L. REV. 1529, 1530 (2010); Ann Bindu Thomas, *Avoiding Embryos "R" Us: Toward a Regulated Fertility Industry*, 27 WASH. U. J.L. & POL'Y 247, 247 (2008); Andrew Zacher, *Oocyte Donor Compensation for Embryonic Stem Cell Research: An Analysis of New York's "Payment for Eggs Program"*, 21 ALB. L.J. SCI. & TECH. 323, 323 (2011).

15. See, e.g., Michelle Bercovici, *Biotechnology Beyond the Embryo: Science, Ethics, and Responsible Regulation of Egg Donation To Protect Women's Rights*, 29 WOMEN'S RTS. L. REP. 193, 194 (2008); Rev. Phillip C. Cato, *The Hidden Costs of Fertility*, 20 ST. JOHN'S J. LEG. COMMENT. 45, 53 (2005); Justine Durrell, *Women's Eggs: Exceptional Endings*, 22 HASTINGS WOMEN'S L.J. 187, 188 (2011); M. Elliott Neal, *Protecting Women: Preserving Autonomy in the Commodification of Motherhood*, 17 WM. & MARY J. WOMEN & L. 611, 616 (2011); Debora Spar & Anna M. Harrington, *Building A Better Baby Business*, 10 MINN. J.L. SCI. & TECH. 41, 41 (2009); Lisa M. Luetkemeyer, Comment, *Who's Guarding the Henhouse and What Are They Doing with the Eggs (and Sperm)? A Call for Increased Regulation of Gamete Donation and Long-Term Tracking of Donor Gametes*, 3 ST. LOUIS U. J. HEALTH L. & POL'Y 397, 399 (2010); Yaniv Heled, Note, *The Regulation of Genetic Aspects of Donated Reproductive Tissue—The Need for Federal Regulation*, 11 COLUM. SCI. & TECH. L. REV. 243, 267 (2010).

16. Telephone Interview with Jennifer Lahl, President, The Center for Bioethics and Culture Network (Oct. 28, 2011).

17. See *infra* note 22 and accompanying text; Melissa Reynolds, Note, *How Old Is Too Old?: The Need for Federal Regulation Imposing A Maximum Age Limit on Women Seeking Infertility Treatments*, 7 IND. HEALTH L. REV. 277, 293 (2010).

18. E.g., Mark Hansen, . . . and *Baby Makes Litigation: As Surrogacy Becomes More Popular, Legal Problems Proliferate*, 97 A.B.A. J. 52, 56 (Mar. 2011) (reporting on one of the biggest fertility scandals).

In addition, there is little information or scholarly research exploring the growing role that fertility clinics, egg-donation agencies, and private brokers play in shaping the market for human eggs within the United States.¹⁹ Currently, only one state—California—directly regulates fertility clinics,²⁰ supporting the conclusion that “supervising certain commercial aspects of the fertility industry” has “generally . . . escaped the sustained attention of federal and state officials.”²¹ This conclusion is further supported by the lack of case law arising from donors who suffered serious complications or were subjected to unethical practices,²² despite increasing evidence demonstrating the frequency at which these complications occur.²³ Some commentators theorize that one reason providers choose to engage in unethical behavior, whether directly or indirectly (through brokers or agencies), is because the guidelines put forth by the ASRM are not mandatory, and there are no penalties for failure to comply, with the exception of California.²⁴

This article presents a compelling argument that comprehensive legislation addressing the procurement of human eggs used for research *and* re-

19. See Lahl, *supra* note 16.

20. See *Fifty State Survey*, *supra* note 5, at California; see also Cato, *supra* note 15, at 49 (citing Stacey A. Huse, *The Need for Regulation in the Fertility Industry*, 35 U. OF LOUISVILLE J. OF FAM. L. 555, 558 (1996/97)).

21. See Noah, *supra* note 14, at 616.

22. Aaron D. Levine, *Self-Regulation, Compensation, and the Ethical Recruitment of Oocyte Donors*, 40 HASTINGS CTR. R. 25, 28–33 (2010) (discussing evidence that egg donor agencies do not comply with ASRM guidelines for donor compensation).

23. See *infra* Part II. There are several reasons for these complications. Donors who experience serious complications may be paid to settle in order to avoid negative publicity or jeopardizing the physician’s medical license. See, e.g., Amended Complaint for Damages at 1, *Papademas v. Pac. Fertility Med. Grp.* (No. 315913), 2002 WL 34141522, at *1 (Cal. Super. 2002) [hereinafter *Papademas*]; see also H. Mertes & G. Pennings, *Oocyte Donation for Stem Cell Research*, 22 HUM. REPROD. 629, 633 (2007) (reporting studies where “malpractices ranging from denying a promised anesthesia during oocyte retrieval and denying follow-up care to intimidation by physicians and the absence of informed consent”). Donors who experience significant side effects, but not serious enough to encourage settlement, often face an uphill battle to win a medical malpractice action against the physician and fertility clinic that treated them. See, e.g., *Unruh-Haxton v. Regents of Univ. of Cal.*, 76 Cal. Rptr. 3d 146, 153 (Cal. Ct. App. 2008) (detailing an egg-stealing scandal where doctors stole eggs/pre-embryos from over three hundred victims); *Dubont v. Cornell Univ.*, No. G026598, 2002 WL 536020, at *1 (Cal. Ct. App. Apr. 11, 2002); *Stone v. Regents of Univ. of Cal.*, 92 Cal. Rptr. 2d 94, 96 (Cal. Ct. App. 1999) (outlining charges of egg stealing against two fertility doctors; one was later arrested in Mexico after fleeing the United States to avoid arrest). It is often very difficult for medical malpractice actions to succeed. See, e.g., *Jeter v. Mayo Clinic Ariz.*, 121 P.3d 1256, 1256 (Ariz. Ct. App. 2005).

24. See Schneider, *supra* note 13, at 1.e2; Levine, *supra* note 22, at 25–33. For a review of ASRM guidelines currently in place, see ASRM Ethics Committee Reports & Statements, <http://www.asrm.org/EthicsReports/> (last visited Feb. 22, 2012); ASRM Practice Committee Guidelines, <http://www.asrm.org/Guidelines/> (last visited Mar. 15, 2012).

productive purposes is needed within the United States to protect women from exploitation and unethical practices.²⁵ Currently, many states have either no legislative guidelines in place or only address eggs used for research purposes, while remaining silent on eggs used for reproductive purposes.²⁶ No state has yet enacted comprehensive legislation addressing eggs used for both research and reproductive purposes.²⁷ Because this topic is complex and uses a specialized vocabulary and concepts that are not part of common knowledge, Part II discusses Assisted Reproductive Technology (ART) procedures that are being used and the demand for these procedures that is currently shaping the global market for human eggs.

Part III presents an overview of the current inadequate state legislation regarding eggs used both for research and for reproductive purposes in all fifty states, and it analyzes the existing gaps. This overview will focus on six critical problems: disparate compensation based on the intended use of the eggs, lack of informed consent, conflicts of interest, predatory advertising, donor-screening procedures, and the disposition of surplus or leftover eggs. The scope of this note is limited to current legislative approaches taken among the fifty states and does not discuss regulatory oversight by federal agencies or federal regulations that have largely been ineffective in addressing these problems within the fertility industry, due to lack of enforcement.²⁸ While federal regulation may be desirable and certainly would be the most comprehensive solution, the Supreme Court of the United States has historically shown a clear preference for allowing the states to experiment and try to hammer out a solution.²⁹ Part IV examines possible legislative solutions, and Part V offers recommendations.

25. See *supra* note 23 and accompanying text.

26. See *infra* Part III.

27. See *id.*

28. For an overview of existing agencies, regulations, or associations that monitor various aspects of the ART industry see Bercovici, *supra* note 15, at 198–202; Heled, *supra* note 15, at 267–80; Reich & Swink, *supra* note 14, at 23–30.

29. See, e.g., *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (noting that “one of the happy incidents of the federal system” was that a state could “serve as a laboratory; and try novel social and economic experiments”); see also *Gonzales v. Raich*, 545 U.S. 1, 42–43 (2005) (citing *Brecht v. Abrahamson*, 507 U.S. 619, 635 (1993)) (discussing “the role of States as laboratories. The States’ core police powers have always included authority to define criminal law and to protect the health, safety, and welfare of their citizens.”).

II. ASSISTED REPRODUCTIVE TECHNOLOGY

The number of children conceived using donated reproductive tissue continues to rise substantially every year.³⁰ Assisted reproductive technologies (ART) encompass a number of procedures such as in vitro fertilization (IVF), zygote intrafallopian transfer (ZIFT), gamete intrafallopian transfer (GIFT), and intracytoplasmic sperm injection (ICSI).³¹ The Centers for Disease Prevention and Control (CDC) defines ART as “all clinical treatments and laboratory procedures—including the handling of human oocytes and sperm, or embryos—conducted with the intent of conceiving.”³² ART does not refer to “treatments in which only sperm are handled (i.e., artificial insemination) or procedures in which a woman takes medicine only to stimulate egg production without the intention of having eggs retrieved.”³³ Approximately twelve percent of all ART cycles performed in the United States use donated eggs.³⁴

ART is highly desirable because it gives infertile couples the ability to conceive a genetic child using donated eggs.³⁵ The term “genetic children” refers to the use of at least one parent’s genetic material (whether sperm or eggs) in the reproduction process, as opposed to an adopted child that has no

30. *Assisted Reproductive Technology*, CTRS. FOR DISEASE CONTROL & PREV., <http://www.cdc.gov/art/index.htm> (last visited Mar. 15, 2012) (noting that “[i]n 2009, there were 441 reporting clinics that performed 146,244 cycles, which resulted in 45,870 live births, and 60,190 infants” and “over 1% of all infants born in the U.S. every year are conceived using ART”). See also *Appendix B: Glossary of Terms Used in This Report*, CTRS. FOR DISEASE CONTROL & PREV., <http://www.cdc.gov/art/ART2008/appixb.htm#L> (last visited Mar. 15, 2012) [hereinafter *CDC Glossary*]. The *CDC Glossary* defines an ART cycle as “a process in which (1) an ART procedure is performed, (2) a woman has undergone ovarian stimulation or monitoring with the intent of having an ART procedure, or (3) frozen embryos have been thawed with the intent of transferring them to a woman.” *Id.* “A cycle begins when a woman begins taking fertility drugs or having her ovaries monitored for follicle production.” *Id.* A “live birth” is defined as “the delivery of one or more infants with any signs of life.” *Id.*

31. *Infertility FAQ's*, CTRS. FOR DISEASE CONTROL & PREV., <http://www.cdc.gov/reproductivehealth/Infertility/index.htm> (last visited Sept. 24, 2011).

32. See *Assisted Reproductive Technology*, *supra* note 30.

33. See Jonathan B. Pitt, *Fragmenting Procreation*, 108 YALE L.J. 1893, 1893–97 (1999).

34. *2009 Assisted Reproductive Technology Success Rates National Summary and Fertility Clinic Report*, CTRS. FOR DISEASE CONTROL & PREV., 60 (2009), http://www.cdc.gov/art/ART2009/PDF/ART_2009_Full.pdf [hereinafter *2009 ART Report*].

35. See Carl H. Coleman, *Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes*, 84 MINN. L. REV. 55, 106–07 (1999) (discussing the importance our society places upon genetic offspring).

biological relation to its adopted parents.³⁶ For many people, the ability to pass on their heritage or personal characteristics to their children is extremely important.³⁷

ART's increasing popularity over the last thirty years³⁸ is due to a number of cultural factors, such as society's tendency to place increasing importance on achieving educational goals and career progression.³⁹ Many women choose to wait until after age thirty-five to have children.⁴⁰ Because of this delay, the demand for ART technology has grown exponentially.⁴¹ Aided by the evolution of reproductive and personal privacy rights,⁴² it is now possible for women to exercise greater control over their reproductive destinies.⁴³

Although the Constitution protects the fundamental right to procreate, constitutional scholars are uncertain how the contours and limitations of this right will evolve in the context of stem cell research, human cloning, in vitro fertilization, and egg donation.⁴⁴ Much will depend upon how the "principle of procreative liberty" is interpreted by the Supreme Court of the United States and whether the use of ART technology is entitled to "special consti-

36. See Suchitra Jittaun Satpathi, *Gliding Over Treacherous Ice: Fulfillment and Responsibility in the New Reproductive Era; Why Contractual Ordering Is Appropriate*, 18 TEMP. ENVTL. L. & TECH. J. 55, 58 (1999).

37. See Coleman, *supra* note 35, at 107.

38. See 2009 ART Report, *supra* note 34, at 65 (reporting that the number of ART cycles performed in the U.S. increased over forty-six percent from 2000 to 2009).

39. Bradley J. Van Voorhis, *In Vitro Fertilization*, 356 NEW ENG. J. MED. 379, 379 (2007); see also Dawn R. Swink & J. Brad Reich, *Caveat Vendor: Potential Progeny, Paternity, and Product Liability Online*, 2007 BYU L. REV. 857, 865–66 (2007).

40. Kara N. Maxwell, Ina N. Cholst, & Zev Rosenwalks, *The Incidence of Both Serious and Minor Complications in Young Women Undergoing Oocyte Donation*, 90 FERTILITY & STERILITY 2165, 2165 (2008); see also Linda J. Heffner, *Advanced Maternal Age—How Old is Too Old?* 351 NEW ENG. J. MED. 1927, 1927 (2004).

41. See 2009 ART Report, *supra* note 34, at 65 (ART Trends 2000–2009).

42. See *Planned Parenthood of S.E. Pa. v. Casey*, 505 U.S. 833, 851 (1992) (holding that "[o]ur law affords constitutional protection to personal decisions relating to marriage, procreation, contraception, family relationships . . ."); *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972) (stating that "[i]f the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child"); *Skinner v. Oklahoma*, 316 U.S. 535, 545 (1942) (upholding a fundamental right to procreate).

43. See J. McGregor & F. Dreifuss-Netter, *France and the United States: The Legal and Ethical Differences in Assisted Reproductive Technology (ART)*, 26 MED. & L. 117, 117 (2007).

44. See Carl H. Coleman, *Assisted Reproductive Technologies and the Constitution*, 30 FORDHAM URB. L.J. 57, 62 (2002); see also John A. Robertson, *Assisting Reproduction, Choosing Genes, and the Scope of Reproductive Freedom*, 76 GEO. WASH. L. REV. 1490, 1490–1505 (2008).

tutional protection.”⁴⁵ As Professor Coleman remarked, “[u]ltimately, whether ART should be considered part of procreative liberty is as much about values and policy as it is about precedent.”⁴⁶ The paucity of case law, combined with the lack of legislative guidance in most states, is one factor contributing to the rise of unethical behavior by some practitioners within the fertility industry.⁴⁷

A. The Global Egg Market

In many developing countries, the lack of regulation and extreme poverty has resulted in a substantial increase in the number of fertility clinics and brokers that cater to foreigners searching for IVF treatments.⁴⁸ The global market for human eggs has grown exponentially as in vitro fertilization and stem cell technologies have become more widely available, creating a “global shortage of human [oocytes].”⁴⁹ The expansion of the global marketplace has created increased opportunities to exploit women, while exerting pressure on the market for eggs within the United States.⁵⁰

1. *The Internet: New Opportunities for Reproductive Commerce*

Increased mobility, unprecedented access to the Internet, and the international focus on globalization has led to significant opportunities for reproductive commerce.⁵¹ Within the fertility industry, the Internet acts as a conduit for communication between couples, clinics, and prospective egg donors, whether the couple is considering using a local clinic or traveling out-

45. See Coleman, *supra* note 44, at 60. “If . . . individuals have a constitutionally protected interest in making decisions about the use of some or all ARTs, any regulation of these technologies would be subject to heightened judicial scrutiny.” *Id.* “Like all questions about the scope of substantive due process protections, the concept of procreative liberty is susceptible to multiple interpretations, depending on the level of generality at which the principle is defined.” *Id.* at 68.

46. *Id.*

47. See *supra* notes 16–18, 23–24 and accompanying text.

48. Ruth Saunders and Zeynep Gürtin-Broadbent, *Event Review: Making Babies in the 21st Century—The Rise of Reproductive Technologies*, BIONEWS (Nov. 8, 2010), http://www.bionews.org.uk/page_81597.asp (last visited June 8, 2012).

49. Catherine Waldby, *Oocyte Markets: Women’s Reproductive Work in Embryonic Stem Cell Research*, 27 NEW GENETICS & SOC’Y 19, 20 (2008); see also Thomas J. Papadimos & Alexa T. Papadimos, *The Student and the Ovum: The Lack of Autonomy and Informed Consent in Trading Genes for Tuition*, 2 REPROD. BIOLOGY & ENDOCRINOLOGY 56, 61 (2004).

50. See generally CARNEY, *supra* note 3 (discussing the global trade in body parts); see also Waldby, *supra* note 49, at 19.

51. See *Globalization*, WORLD HEALTH ORG., <http://www.who.int/trade/glossary/story043/en/index.html> (last visited Oct. 1, 2011); see also Swink & Reich, *supra* note 39, at 863–69.

side the United States to a country where the costs are lower and the regulations are minimal.⁵² Clinics use the internet to offer infertile and non-traditional couples the ability to “customize” a child based on particular characteristics, such as height, eye color, hair color, or race.⁵³ Prospective recipients can sort through hundreds of donor profiles and pictures—much like a dating website.⁵⁴ Although the process is anonymous, some egg brokers “personalize” the experience by creating profiles for each egg donor that lists their ethnicities, religion, eye color, hair color, height, age, build, education level, talents, hobbies, location, and whether they have been pregnant before.⁵⁵ The donor profile includes several pictures of the donor in various poses, and may also include a video statement by the donor.⁵⁶

2. *Twin Purposes for Human Eggs*

Worldwide, human eggs are used for two principal purposes: reproduction (IVF) and research (stem-cell and cloning).⁵⁷ The procedure for harvesting eggs is essentially the same for both; however, with stem cell research the “aim of the donation is to advance medical knowledge rather than to establish a pregnancy.”⁵⁸ Egg donation or oocyte retrieval is a complicated multi-step procedure that involves a multi-drug protocol⁵⁹ with substantial acute and long-term risks to both donor and recipient.⁶⁰

52. Andrea Mechanick Braverman, *How the Internet is Reshaping Assisted Reproduction: From Donor Offspring Registries to Direct-to-Consumer Genetic Testing*, 11 MINN. J.L. SCI. & TECH. 477, 477 (2010).

53. Tamara Audi & Arlene Chang, *Assembling the Global Baby*, WALL ST. J., Dec. 10, 2010, at C, available at <http://online.wsj.com/article/SB10001424052748703493504576007774155273928.html>.

54. Prospective parents can add donors to their wish list, much like placing an order on Amazon.com, and then the broker will work with the parents to choose their “ideal” donor. See, e.g., Braverman, *supra* note 52, at 477.

55. E.g., *Egg Donor Wish List: Member Login*, THE CTR. FOR HUMAN REPROD., https://www.centerforhumanreprod.com/wl_search.php (last visited Oct. 1, 2011); FERTILITY BRIDGES, <http://www.fertilitybridges.com/eggdonordatabase.html> (last visited Oct. 1, 2011). “Proven” donors are compensated more because the probability that a recipient will become pregnant using their eggs is higher. See Schneider, *supra* note 13, at 1.e1.

56. *Egg Donor Wish List: Member Login*, *supra* note 55.

57. See Mertes & Pennings, *supra* note 23, at 629.

58. *Id.* (discussing the harvesting procedure for IVF reproduction and stem cell research).

59. See *The Medical Procedure of Egg Donation*, STANFORD UNIV., <http://www.stanford.edu/class/siw198q/websites/eggdonor/procedures.html> (last visited Sept. 30, 2011). Donors generally receive three classes of drugs before their eggs are harvested: Gonadotropin-Releasing Hormone Agonist Analogues (GRHA), Follicle Stimulating Hormone (FSH) or Human Menopausal Gonadotropin (hMG), and Human Chorionic Gonadotropin (HCG). *Id.*

60. See *IOM Report*, *supra* note 4, at 4.

First, the donor takes a drug to stop ovulation and menstruation, inducing “artificial menopause.”⁶¹ Next, the donor begins daily injections of either follicle stimulating hormone (FSH) or human menopausal gonadotropin (hMG), which hyperstimulates the ovaries to maximize the number of eggs produced.⁶² After the donor’s physician determines that the eggs have matured, ovulation is triggered by administering a single dose of human chorionic gonadotropin.⁶³ Egg retrieval occurs thirty-four to thirty-six hours after this injection.⁶⁴ The donor is placed under anesthesia and her eggs are harvested using transvaginal aspiration.⁶⁵

B. Risks and Side Effects Associated with Egg Harvesting

While the long-term risks and effects of egg donation are not yet definitively known, recent studies suggest that the medications used to stop ovulation and hyperstimulate the ovaries to produce more eggs (Stages 1 and 2) expose egg donors to tremendous risks that may endanger their lives and compromise their future fertility.⁶⁶ Within the medical community, there is significant disagreement about the frequency at which these risks occur and the potential long-term effects the drug protocols may have upon donors’ health and future fertility.⁶⁷

61. *The Medical Procedure of Egg Donation*, *supra* note 59. This step will hereinafter be referred to as Stage 1. A commonly used GRHA is Lupron™ (brand name) or Leuprolide acetate (generic), which is indicated (approved) for “palliative treatment of advanced prostatic cancer.” *Table of Approved Indications for GnRH Agonists in Adults*, U.S. FOOD & DRUG ADMIN., <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm209842.htm#table> (last visited Oct. 30, 2011).

62. *See generally IOM Report*, *supra* note 4, at 2 (discussing the harvesting process). This step will hereinafter be referred to as Stage 2.

63. *See supra* note 59 and accompanying text. This step will hereinafter be referred to as Stage 3.

64. *See supra* note 59 and accompanying text.

65. *See IOM Report*, *supra* note 4, at 10–11.

66. For more information and detailed data findings, see W. Kramer, J. Schneider & N. Schultz, *US Oocyte Donors: A Retrospective Study of Medical and Psychosocial Issues*, 24 HUMAN REPROD. 3144, 3146 (2009) (noting there are no studies that evaluate the donor’s long-term risks after ovarian stimulation and the increased incidences of premature ovarian failure, reduced fertility, and cancer). *See also IOM Report*, *supra* note 4, at 11–50.

67. *Compare Ovarian Hyperstimulation Syndrome*, NAT’L CTR. FOR BIOTECHNOLOGY INFO., <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0004549/> (last visited Dec. 4, 2012) (stating that OHSS is a complication *occasionally* seen in women), and *Repetitive Oocyte Donation*, PRACTICE COMM. OF THE AM. SOC’Y FOR REPROD. MED., 90 FERTILITY & STERILITY S194, S194 (2008) (positing that “[c]ontrolled ovarian hyperstimulation entails both known and theoretical risks”), with Christian Jensen, *Egg Donation Is Not as Simple as it Sounds*, EVENING STANDARD (Oct. 26, 2011), http://www.thisislondon.co.uk/lifestyle/article-24002543-egg-donation-is-not-as-simple-as-it-sounds.do#.Tqrnj_DNNhQ.mailto (discussing the occurrence of OHSS and linking it to “intensive farming at fertility clinics”).

1. *Acute Risks*

Potential acute risks to egg donors include ovarian hyperstimulation syndrome (OHSS), anesthesia/surgical mishaps,⁶⁸ and psychological problems.⁶⁹ Some clinicians and practitioners believe that OHSS rarely occurs and, when it does, it is likely linked to “pre-disposing factors,” such as polycystic ovarian syndrome or the age of the donor, which cause the donor’s ovaries to respond differently to the drug protocols in Stages 1 and 2.⁷⁰ Others believe that acute risks, particularly OHSS, are linked to the aggressive stimulation of the ovaries and lack of individualized drug protocols.⁷¹ Doctors are often reluctant to cancel or adjust the donor’s drug protocol because their “patient” is the recipient, rather than the donor; this conflict of interest may negatively affect the quality of care the donor receives.⁷² According to Dr. Suzanne Parisian, former chief medical officer for the Federal Drug Administration,

[O]ver-stimulation of the ovary can progress rapidly to a serious life-threatening condition days after completion of egg collection . . . OHSS carries an increased risk of clotting disorders, kidney damage, and ovarian twisting. Ovarian stimulation . . . has been associated with serious life threatening pulmonary conditions in FDA trials including thromboembolic events, pulmonary embolism, pulmonary infarction, cerebral vascular accident (stroke) and arterial occlusion with loss of a limb and death. Risks of the egg retrieval procedure, although rare, include death, respir-

68. See Stephen J. Bennett et al., *Complications of Transvaginal Ultrasound-Directed Follicle Aspiration: A Review of 2670 Consecutive Procedures*, 10 J. OF ASSISTED REPROD. & GENETICS 72 (1993); Suzanne Parisian, *Open Letter from Suzanne Parisian*, CENTER FOR GENETICS & SOCIETY (Feb. 19, 2005), <http://www.geneticsandsociety.org/article.php?id=181>.

69. *IOM Report*, *supra* note 4, at 41–49.

70. See Mertes & Pennings, *supra* note 23, at 630.

71. See Annick Delvigne & Serge Rozenberg, *Epidemiology and Prevention of Ovarian Hyperstimulation Syndrome (OHSS): A Review*, 8 HUMAN REPROD. UPDATE 559, 561 (2002) (“[A] significant correlation was found between the baseline number of follicles, the number of oocytes retrieved, and OHSS. There is no doubt that the incidence of OHSS is related to the stimulation regimens used.”). See also Mertes & Pennings, *supra* note 23, at 630.

72. See Delvigne & Rosenberg, *supra* note 71, at 565 (“[P]hysicians may also feel more reluctant to propose cancellation to patients [who receive the harvested eggs] as IVF implies a great commitment on the patients’ part in terms of procedures, time and money; moreover, the physicians are also under pressure to obtain a ‘successful’ outcome and to transfer more embryos when there is no insurance. . . .”); see also Noah, *supra* note 14, at 626–28 (citing W. Gifford-Jones, *Multiple Births a Cause for Concern*, FIN. POST, Aug. 8, 1998, at R11) (suggesting that one reason some practitioners overstimulate the donor’s ovaries is because it is more effective (more eggs are produced) and more profitable.).

atory or cardiac arrest, brain damage, paraplegia, paralysis, loss of function of a limb or organ, hemorrhage, allergic reaction, and infection.⁷³

A number of recent studies suggest that the occurrence of OHSS is substantially higher than previously reported,⁷⁴ and it is directly linked to “the total number of developing follicles and to the number of collected oocytes.”⁷⁵ However, experts disagree on the frequency with which OHSS occurs, with estimates ranging from less than one percent to nearly thirty percent.⁷⁶ It is difficult, if not impossible, to precisely determine how often acute complications result from egg harvesting because providers are not required to report incidents of OHSS, and many providers do not follow up with the donors after their eggs are harvested.⁷⁷

2. Long-term Risks

Long-term risks of egg donation largely remain a mystery because there are no clinical trials that have studied the long-term effects of egg donation upon *the donor*, suggesting that many donors did not have sufficient information to give informed consent.⁷⁸ Potential long-term side effects cur-

73. Parisian, *supra* note 68. *Accord IOM Report*, *supra* note 4, at 18–19. *See also Ovarian Hyperstimulation Syndrome*, PRACTICE COMM. OF THE AM. SOC’Y FOR REPROD. MED., 90 FERTILITY & STERILITY S188, S191 (2008); Arthur C. Fleischer, MD, *Ovarian Torsion*, MEDSCAPE REFERENCE, <http://emedicine.medscape.com/article/2026938-overview> (last updated Sept. 26, 2011) (explaining that “[o]varian torsion is encountered more often in women who have had ovarian stimulation”).

74. *See* Kramer et al., *supra* note 66, at 3146 (reporting on their research efforts surveying 287 donors); *see also IOM Report*, *supra* note 4, at 17–22.

75. *See* Delvigne & Rosenberg, *supra* note 71, at 564 (“[N]o patient developed severe OHSS when fewer than 20 oocytes were collected,” but it should be noted that the risk of developing OHSS rose substantially when more than thirty oocytes were extracted.); *see also* Mertes & Pennings, *supra* note 23, at 630; *Ovarian Hyperstimulation Syndrome*, *supra* note 73, at S188 (noting that risk rises with number of oocytes retrieved).

76. *See supra* note 67 and accompanying text; Maxwell et al., *supra* note 40, at 2168 (noting that the statistics did not include the donors whose cycles were cancelled due to the risk of OHSS and that the occurrence of complications was based upon whether or not the donor came back for an office visit, suggesting that the risks of OHSS are probably higher than reported); *see also* Kramer et al., *supra* note 66, at 3146. For example, a recent study that surveyed egg donors ten years after their eggs were harvested reported that thirty percent of participants reported OHSS complications and nearly ten percent reported infertility issues. *See id.*

77. In some cases, women file medical malpractice suits against the clinic or doctors performing the oocyte retrieval and later settle before trial. *See, e.g., Papademas*, *supra* note 23, at *1; Kramer et al., *supra* note 66, at 3146; Maxwell et al., *supra* note 40, at 2168; Mertes & Pennings, *supra* note 23, at 631.

78. *See* Schneider, *supra* note 13, at 1.e2–e3 (“Virtually all of the published reports have suggested that given time, an association between the exogenous gonadotropins and various cancers may eventually be demonstrated” and “[t]here has been little attention fo-

rently identified include breast, ovarian, and endometrial cancers as well as infertility.⁷⁹ Clinicians' efforts to demonstrate a link between the drug protocols used and a higher risk of cancer have been stymied by the lack of donor data and the high costs associated with managing a large, long-term surveillance program.⁸⁰ Several studies monitored donors for possible side effects, but they have drawn ambiguous conclusions, partly because the surveillance period was less than twenty years, making it difficult to draw meaningful conclusions about long-term risks to the donors from the data collected.⁸¹

C. Eggs Used for Reproductive Purposes

In the United States, in vitro fertilization (IVF) is the primary method used to assist infertile couples that want to conceive a genetic child.⁸² In vitro fertilization refers to the process of removing eggs from a woman, fertilizing the eggs in the lab, and implanting (or transferring) the resulting embryos into the recipient's uterus several days later.⁸³ The first baby conceived using IVF was born in 1978 in England; three years later, the first IVF child in the United States was born in California.⁸⁴ Since that time, IVF utilization has increased rapidly;⁸⁵ however only a handful of states have any legislation explicitly addressing compensation of IVF egg donors.⁸⁶

cused on the long-term effects of assisted reproductive technologies . . . most IVF protocols include luteal phase support for several weeks with supplemental progestogens, which raises concern since these agents have been linked in several studies to increase in breast cancer risk.”); see also Maxwell et al., *supra* note 40, at 2166 (“To our knowledge, only *one* study has been performed on the rate of serious complications of [OHSS] and oocyte retrieval that specifically are experienced by oocyte donors.”).

79. See *IOM Report*, *supra* note 4, at 22–26.

80. See *id.* at 22–28; Schneider, *supra* note 13, at 1.e2.

81. See Schneider, *supra* note 13, at 1.e1; Judy Norsigian, *Egg Donation for IVF and Stem Cell Research: Time to Weigh the Risks to Women's Health*, DIFFERENT TAKES 2 (Spring 2005),

http://popdev.hampshire.edu/sites/popdev/files/uploads/dt/DifferenTakes_33.pdf (“One of the more serious issues . . . is the absence of any good quality long term safety data on the infertility drugs commonly used. There are hundreds if not thousands of anecdotal reports, where complications were NOT short-lived ‘The FDA says *it has not tracked claims of such long-term effects.*’”(emphasis added)).

82. See *Assisted Reproductive Technology*, *supra* note 30 (Spreadsheet of Clinic Tables and Data Dictionary).

83. “Transfer rate” refers to the number of embryos implanted in a recipient's womb. 81 FERTILITY & STERILITY S21, S21–22 (2004).

84. See Spar & Harrington, *supra* note 15, at 41.

85. See Reich & Swink, *supra* note 14, at 11 (noting that in 1986, there were only forty-one IVF clinics in the United States).

86. See *infra* notes 125, 127 and accompanying text.

Donor eggs are most commonly used by women who are between thirty-seven and forty-five years of age.⁸⁷ The likelihood of pregnancy increases if more than one egg is transferred, but doing so greatly increases the probability that multiple infant births⁸⁸ or other complications may occur.⁸⁹ Because ART is expensive and recipients are often limited by the number of cycles they can afford, there is substantial pressure on physicians and clinics to maximize a recipient's chance of getting pregnant on the first attempt.⁹⁰ This situation suggests that the egg donor's quality of care may be compromised because the physician's primary concern is to satisfy his client, the recipient; this conflict of interest may make it difficult to simultaneously act in the donor's best interests.⁹¹ The conflict of interest is even greater when the supervising physician has an ownership interest in the fertility clinic and plays an active role in determining compensation and the standard of care for egg donors; there is a substantial incentive to cut costs and maximize profits.⁹²

Over the last thirty years, the costs associated with IVF have steadily increased as the technology and rate of success have improved.⁹³ Additionally, the cost per IVF cycle is much higher in the United States than other countries.⁹⁴ The average cost of an IVF cycle is \$12,400, while the cost of a live birth ranges between \$66,667 and \$114,286.⁹⁵ Despite this, demand has remained high, and continues to increase every year.⁹⁶ Unlike many other developed countries that have adopted publicly funded health care plans that cover infertility treatments, the United States does not yet have a comprehensive healthcare solution that includes fertility treatments.⁹⁷ Because few

87. See 2009 ART Report, *supra* note 34, at 60–61.

88. See *id.* at 63.

89. See *id.* at 59, 63.

90. Marius Meintjes et al., *The Balance Between Optimizing Recipient Pregnancy Outcomes and Aggressive Oocyte Donor Stimulation*, 80 FERTILITY & STERILITY S174, S174–75 (2003).

91. See Judith F. Daar, *Regulating Reproductive Technologies: Panacea or Paper Tiger?*, 34 HOUS. L. REV. 609, 633 (1997).

92. See *supra* note 23 and accompanying text.

93. See DEBORA L. SPAR, *THE BABY BUSINESS: HOW MONEY, SCIENCE, AND POLITICS DRIVE THE COMMERCE OF CONCEPTION* 229 (2006) (noting that the cost of a live birth born to an older woman may be as high as \$151,000 to \$223,000); see also Nizan Geslevich Packin, *The Other Side of Health Care Reform: An Analysis of the Missed Opportunity Regarding Infertility Treatments*, 14 SCHOLAR 1, 20 (2011).

94. Mark P. Connolly et al., *The Costs and Consequences of Assisted Reproductive Technology: An Economic Perspective*, 16 HUMAN REPROD. UPDATE 603, 604 (2010) (discussing the fact that the U.S. performed the largest number of ART cycles in the world but has one of the lowest utilization rates).

95. See SPAR, *supra* note 93, at 229.

96. See Spar & Harrington, *supra* note 15, at 43–49.

97. See Packin, *supra* note 93, at 8.

healthcare plans cover fertility treatments,⁹⁸ IVF costs are primarily paid out-of-pocket, often making it “too expensive for more than a single try,” increasing pressure on the physician or clinic to achieve a successful result.⁹⁹

D. Eggs Used for Stem Cell Research

Stem cell research offers the possibility of providing cures for diseases that result from failing organ systems, such as Type I Diabetes and Parkinson’s as well as generating replacement tissue through cell-based therapies.¹⁰⁰ The majority of extant legislation regarding stem cells deals with regulating or restricting human cloning.¹⁰¹ Somatic Cell Nuclear Transfer (SCNT) is a recently developed human cloning technology, which consumes enormous quantities of freshly harvested eggs in the research process.¹⁰² The societal, cultural, and legal resistance to human cloning¹⁰³ and genetic engineering forces researchers to rely upon embryos left over from altruistic IVF egg donations.¹⁰⁴ However, the “existing demand for reproductive oocytes far outstrips availability,” thus, SCNT research places tremendous additional pressure on the global egg market.¹⁰⁵

Eggs are harvested for stem cell research using the same procedure and drug protocols as used for IVF purposes,¹⁰⁶ however, “prevailing social and

98. *See id.* at 21 (“[B]ecause coverage for infertility treatments is much more controversial, in most states there is currently no coverage for infertility treatments at all. Only fifteen states mandate insurance coverage for infertility treatments, and specifically, only two states require that coverage actually be offered.”).

99. *See id.* at 20–21.

100. *IOM Report*, *supra* note 4, at 1.

101. *See Fifty State Survey*, *supra* note 5.

102. *See* Waldby, *supra* note 49, at 21; Emily Galpern, *Beyond Embryo Politics: Women’s Health and Dignity in Stem Cell Research*, *Women’s Health Activist Newsletter*, NAT’L WOMEN’S HEALTH NETWORK (Mar./Apr. 2006), <http://nwhn.org/beyond-embryo-politics-womens-health-and-dignity-stem-cell-research> (explaining that the “huge number of eggs needed and the enormous costs required” make it unfeasible at this time, although scientists acknowledge that SCNT is more likely to be used to study diseases at the cellular level”).

103. S. Camporesi & G. Boniolo, *Fearing a Non-existing Minotaur? The Ethical Challenges of Research on Cytoplasmic Hybrid Embryos*, 34 *J. MED. ETHICS* 821, 823 (2008) (discussing the possibilities of human-animal hybrids and society’s repugnance towards this research, but arguing that the severe shortage of human oocytes necessitates using animal oocytes which is “an ethically more acceptable alternative”).

104. *See IOM Report*, *supra* note 4, at 7 (“For this research to move forward . . . [it] will require a steady supply of stem cells, particularly human embryonic stem cells. . . . Thus much of the promise of stem cells depends on women choosing to donate oocytes to the research effort.”).

105. *See* Waldby, *supra* note 49, at 2.

106. Mertes & Pennings, *supra* note 23, at 629 (stating that “[a]n oocyte donor for stem cell research is subjected to the same treatment as an oocyte donor in the reproductive setting, but the aim of the donation is to advance medical knowledge rather than to establish a pregnancy”). *Accord* Sandra A. Carson, *Proposed Oocyte Donation Guidelines for Stem Cell*

political attitudes impose different standards on eggs” used for reproduction as compared to those used for research.¹⁰⁷ Whereas “younger women with particular backgrounds are almost exclusively sought after” for eggs used for reproductive purposes,¹⁰⁸ donors for research can be much more diverse because “researchers only require that [their] oocytes contain healthy cytoplasm.”¹⁰⁹ While IVF egg donors receive compensation, with the exception of New York, egg donors for research do not.¹¹⁰

In contrast to eggs used for IVF purposes, which are used to create new life, eggs used for human embryonic stem cell research are destroyed when the egg’s nucleus is removed to permit the scientist to insert the nucleus of a somatic cell into the egg cell, thereby reprogramming it.¹¹¹ Donors’ reluctance to have their eggs used for research, combined with the vast number of eggs required for SCNT, aggravate concerns that researchers or fertility physicians will resort to unethical means to obtain the eggs necessary for their research.¹¹² These attitudes and beliefs shaped states’ current legisla-

Research, 94 FERTILITY & STERILITY 2503, 2505 (2010) (outlining protocols for ovarian stimulation).

107. Bercovici, *supra* note 15, at 196; *see IOM Report, supra* note 4, at 4 (“Research donors, for example, are likely to be drawn from a much broader range of women than IVF patients, who tend to be primarily Caucasian women in middle to upper socioeconomic groups.”); Eric D. Levens & Alan H. DeCherney, *Human Oocyte Research: The Ethics of Donation and Donor Protection*, 300 JAMA 2174, 2175 (2008) (citing Ethics Committee of the American Society for Reproductive Medicine, *Financial Compensation of Oocyte Donors*, 88 FERTILITY & STERILITY 305, 308 (2007)).

108. *See* Foohey, *supra* note 14, at 903.

109. Sarah B. Angel, *The Value of the Human Egg: An Analysis of Risk and Reward in Stem Cell Research*, 22 BERKELEY J. GENDER L. & JUST. 183, 198 (2007).

110. *IOM Report, supra* note 4, at XII (“Human embryonic stem cells are currently derived primarily from unwanted or ‘surplus’ (donated) human embryos from patients who have undergone treatments for infertility.”); Bercovici, *supra* note 15, at 197; Ethics Committee of the American Society for Reproductive Medicine, *Informed Consent and the Use of Gametes and Embryos for Research*, 82 FERTILITY & STERILITY S251, S251 (2004); *see also* Zacher, *supra* note 14, at 341.

111. Radhika Rao, *Coercion, Commercialization, and Commodification: The Ethics of Compensation for Egg Donors in Stem Cell Research*, 21 BERKLEY TECH. L.J. 1055, 1060–61 (2006).

112. *See* Waldby, *supra* note 49, at 10 (discussing discredited Professor Hwang Woo Suk’s research in South Korea). Hwang made international headlines in 2004 when his team was the first to harvest stem cells from cloned human embryos, but later admitted to using several of his junior staff members as egg donors and purchasing human eggs from twenty other women in violation of medical ethics standards. *Id.*; *see also* Colleen C. Campbell, “Supreme Scientist” Superstar: The Hwang Scandal Highlights the Ethical Dangers of ESCR, NAT’L REVIEW (Dec. 2, 2005), <http://www.nationalreview.com/articles/216148/supreme-scientist-superstar/colleen-carroll-campbell> (discussing the Hwang scandal and the “research-at-all-costs mentality”).

Many embryonic-stem-cell-research activists . . . discount concerns about the demand for eggs leading to ethical breaches and the exploitation of women. Sci-

tion—most of which prohibits compensation for eggs used for research while remaining silent about compensation for IVF donors.¹¹³

The dichotomy demonstrated by existing legislation reflects the contradictory standards applied to eggs used for reproductive purposes (IVF) versus eggs used for research. Some statutes allow payment for IVF eggs, but not for research eggs, while some require strict documentation and tracking requirements for research eggs, but have no guidelines for monitoring the harvesting and implantation of eggs used in IVF procedures.¹¹⁴

III. REGULATION OF EGG DONATION AND STEM CELL RESEARCH WITHIN THE UNITED STATES

A survey of existing state laws¹¹⁵ regulating the practice of egg donation, stem cell research, and human cloning within the United States reveals a loose patchwork of legislation that, in the majority of states, is unregulated.¹¹⁶ The lack of legislation in these states creates an environment in which unethical brokers, clinics, or providers may operate without any regulatory oversight.¹¹⁷

entists can be trusted to comply with agreed-upon professional and government standards, they say. Yet when the world's leading stem-cell researcher admits that the frenetic pursuit of promised cures made the temptation to cheat too great, they dismiss his behavior as irrelevant to the debate about his research. In fact, Hwang's lies and lapses are a clear illustration of the ethical problems created by embryonic-stem-cell research: the immense demand for human eggs that threatens to transform desperately poor women into reluctant egg donors; the risks to those women of illness, infertility, and death that may go unmentioned by researchers seeking their eggs; and the dire consequences for a culture that makes a commodity of human eggs, human embryos, and human life itself.

Campbell, *supra*.

113. See *infra* Part III.

114. See *infra* Part III; *Fifty State Survey*, *supra* note 5. See also Bercovici, *supra* note 15, at 194.

115. See *Fifty State Survey*, *supra* note 5.

116. See Helen M. Alvaré, *The Case for Regulating Collaborative Reproduction: A Children's Rights Perspective*, 40 HARV. J. ON LEGIS. 1, 25 (2003); Bridget M. Fuselier, *The Trouble with Putting All Your Eggs in One Basket: Using a Property Rights Model to Resolve Disputes Over Cryopreserved Pre-Embryos*, 14 TEX. J. C.L. & C.R. 143, 183 (2009) (“[W]hile some states ha[ve] made attempts at addressing ethical concerns of ART, there is lack of uniformity among states, with many providing little to no regulation.”); Hansen, *supra* note 18, at 54 (discussing the “crazy quilt of laws” in the United States, which “unlike many countries, has no national policies governing assisted reproductive technology”); see also *Fifty State Survey*, *supra* note 5.

117. See *supra* notes 16–18, 23–24 and accompanying text.

A. Overview of Stem Cell Legislation

Currently, only Georgia, Idaho, and Iowa explicitly permit stem cell research.¹¹⁸ Eighteen states specifically prohibit human cloning, but are silent about other types of stem cell research, a reflection of society's repugnance towards this type of research.¹¹⁹ Eleven of these states include a scienter requirement, thus preventing criminal prosecution unless a person knowingly or intentionally performs human cloning.¹²⁰ Two states—Arizona and Louisiana—do not prohibit human cloning, but specify that public funds shall not be used for SCNT research.¹²¹

B. Overview of Egg Donation Legislation

A survey of existing legislation on eggs used for reproductive purposes demonstrates the wide variety of approaches taken by the states while highlighting the substantial disparity in market regulation based upon the intended use of the eggs.¹²² Only three states—Georgia, Louisiana, and Oklahoma—expressly prohibit the sale of human eggs for compensation under any circumstances.¹²³ While a blanket prohibition on compensation provides women the most protection from exploitation, commodification, and long-term side effects yet to be identified, this approach is politically divisive because it puts lawmakers in a Solomon-like position of choosing to protect some women while denying others the fundamental right to procreate. The fact that only three states have been successful in implementing this approach attests to the monumental effort needed to overcome this objection. States that have attempted to pass similar legislation have failed to gain the necessary consensus to enact the proposed law.¹²⁴

At the opposite side of the spectrum, Indiana, Florida, and Virginia explicitly permit compensation and reimbursement of the donor's expenses for egg donation for IVF purposes.¹²⁵ This broad approach permits "reasonable compensation" for the donor's medical expenses, hospital expenses, travel,

118. See *Fifty State Survey*, *supra* note 5.

119. See *id.* at Arkansas, California, Connecticut, Indiana, Iowa, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Jersey, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Dakota, and Virginia.

120. See *id.* at Arkansas, Connecticut, Indiana, Iowa, Maryland, Massachusetts, Michigan, Montana, New Jersey, North Dakota, and Pennsylvania.

121. See *id.* at Arizona, and Louisiana.

122. See *generally supra* note 5.

123. See *id.* at Georgia, Louisiana, and Oklahoma.

124. See, e.g., H.B. 2907, 53d Leg., 2d Reg. Sess. (Okla. 2011).

125. See *Fifty State Survey*, *supra* note 5, at Florida, Indiana, and Virginia.

and recovery time.¹²⁶ This approach has been criticized for permitting donors to be compensated for their eggs without implementing adequate guidelines, such as specifying standards for informed consent and defining reasonable compensation so that courts have a tool to evaluate these transactions. The lack of guidance may encourage egg trafficking, or at the very least, induce vulnerable women to donate their eggs without fully understanding the risks.¹²⁷ Fourteen states prohibit egg donation for research purposes but are silent on eggs used for reproductive purposes.¹²⁸ This approach seeks a compromise between prohibiting donor compensation and allowing donors to be compensated for reasonable expenses. However, this approach provides no guidance to courts, practitioners, clinics, or doctors regarding what expenses are considered “reasonable expenses.” The lack of legislation also makes it extremely difficult for donors to seek recourse when they experience complications or serious injuries because the courts have difficulty fashioning a remedy without regulatory or legislative guidelines that dictate the industry standard that brokers, clinics, and providers must adhere to.¹²⁹ Because the donor signs a contract to donate her eggs and consents to the extraction procedure, she generally cannot win a suit against the fertility provider or clinic unless she has suffered from an egregious error or gross misconduct.¹³⁰ Another problem arises when donors become aware of recently discovered serious side effects or long-term risks of which they were not informed of prior to the extraction.¹³¹

126. See *id.* at Indiana, Florida, and Virginia. Many states use a similar “actual expenses incurred” model to compensate surrogates. See Kimberly D. Krawiec, *A Woman's Worth*, 88 N.C. L. REV. 1739, 1766 (2010).

127. See Ruth Macklin, *What is Wrong with Commodification*, in *NEW WAYS OF MAKING BABIES: THE CASE OF EGG DONATION* 106, 107–19 (Cynthia B. Cohen ed., 1996); Murray, *supra* note 7, at 60–67.

128. See *Fifty State Survey*, *supra* note 5, at Arkansas, California, Colorado, Idaho, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, North Dakota, Pennsylvania, South Dakota, and Virginia.

129. See *Jeter v. Mayo Clinic Ariz.*, 121 P.3d 1256 (Ariz. 2005); see also *supra* note 23 and accompanying text. For a review ASRM guidelines, see *supra* note 24 and accompanying text. See also John A. Robertson, *Commerce and Regulation in the Assisted Reproduction Industry*, 85 TEX. L. REV. 665, 682 (2007) (“An efficient system of reproductive technology needs an infrastructure of legal rules for how technology affects ownership and control of gametes and embryos and the rearing rights and duties in the offspring generated by ART.”).

130. See *supra* notes 23, 78 and accompanying text.

131. See *IOM Report*, *supra* note 4, at 22–26; Maxwell et al., *supra* note 40, at 2166; Schneider, *supra* note 13, at 1.e2–e3; Judy Norsigian, *Egg Donation for IVF and Stem Cell Research: Time to Weigh the Risks to Women's Health*, *DIFFERENT TAKES 2* (Spring 2005), http://popdev.hampshire.edu/sites/popdev/files/uploads/dt/DifferenTakes_33.pdf (“One of the more serious issues . . . is the absence of any good quality long term safety data on the infertility drugs commonly used. There are hundreds if not thousands of anecdotal reports, where complications were NOT short-lived. . . . ‘The FDA says it has not tracked claims of such long-term effects. . . .’” (emphasis added)).

Some states, such as Illinois, Minnesota, New Jersey, and Rhode Island, prohibit the sale of eggs obtained from human fetuses but do not address eggs donated by adult donors.¹³² This legislation fails to address how eggs obtained from sources other than fetuses should be treated and what guidelines apply to those transactions. The remaining states either have no legislation dealing with selling human eggs for IVF purposes or only prohibit human eggs being used for research (human cloning) without addressing eggs used for reproductive purposes.¹³³ This absence of legislation leaves the field open for unethical providers, brokers, and clinics to operate, while additionally failing to provide courts with clear guidelines to evaluate these transactions. This is perhaps the most damaging approach for donors, as the absence of legislation defining acceptable conduct increases the probability that women will be injured or exploited.¹³⁴

C. Gaps in Existing Legislation and Suggested Model Approach

Based on the above overview, it is readily apparent that a wide variety of approaches exist within the United States that address stem cell research, human cloning, and egg donation for IVF purposes. One state—California—provides a legislative solution to address eggs used for IVF reproduction, human cloning, and stem cell research, while providing donors recourse if the legislative guidelines are not adhered to.¹³⁵ California's legislation package is not comprehensive; significant gaps still exist. However, its legislative approach addresses many of the fundamentals needed to protect both donors and recipients from unethical conduct and can provide guidance to other states seeking to implement a more comprehensive legislative solution in their jurisdictions.

First, California mandates informed consent, written and oral, prior to egg retrieval.¹³⁶ The statute delineates the format and substance of the consent.¹³⁷ The statute enumerates disclosure requirements that include “medically accurate” information detailing the potential risks associated with “the surgical procedure and . . . the drugs, medications, and hormones prescribed for ovarian stimulation during the AOP [assisted oocyte production] pro-

132. See *Fifty State Survey*, *supra* note 5, at Illinois, Minnesota, New Jersey, and Rhode Island.

133. See *supra* Part III.A; see also *Fifty State Survey*, *supra* note 5, at Arizona, Florida, Indiana, Louisiana, and Virginia.

134. See *supra* notes 23, 78 and accompanying text.

135. See *Fifty State Survey*, *supra* note 5, at California.

136. See *id.* at CAL. HEALTH & SAFETY CODE § 125335 (West, Westlaw through 2012 Legis. Sess.).

137. See *id.* (mandating that providers disclose a “standardized medically accurate written summary of health and consumer issues associated with [assisted oocyte production] and any alternative methods of oocyte retrieval”).

cess,” requiring providers to educate donors about “alternative method[s] of oocyte retrieval,” and listing “additional . . . medical information on health and safety issues surrounding oocyte retrieval.”¹³⁸

However, this statute only addresses eggs used for research, i.e., those used “for the purpose of procuring oocytes for research or the development of medical therapies,” but does not explicitly require the same consent procedures for eggs used for reproductive purposes.¹³⁹ This gap should be closed by requiring informed consent for all egg retrievals—regardless of the purpose for which the eggs are used.

Also, unlike Virginia, California does not mandate compliance with federal screening requirements for donated reproductive tissue, and, unlike New Hampshire, California also does not mandate that potential donors be given a general medical evaluation.¹⁴⁰ Donors may be unaware that they have physiological problems, genetic diseases, or may be predisposed for certain diseases.¹⁴¹ This is significant because recipients rely upon providers, clinics, and egg broker agencies to screen potential donors for pre-existing genetic diseases; thus, failure to mandate testing guidelines could expose recipients and their families to the unanticipated risks of having a child with a serious medical condition that impacts the child’s quality of life or life expectancy.¹⁴² Because most courts currently treat human eggs/embryos as a good regulated by contract, as opposed to a property interest or a child, this suggests that future donors who intentionally misrepresent or hide pre-existing conditions or diseases may be subject to UCC-based liability, while also implying that recipients may have a cause of action against the provider or clinic for failure to properly screen potential donors and for lack of informed consent regarding potential risks associated with the eggs implanted.¹⁴³

138. *Id.*

139. *Id.*

140. 21 C.F.R. §§ 1271.75–.90 (2004) (listing what tests and diseases potential donors and donated reproductive material must be screened for); *Fifty State Survey*, *supra* note 5, at N.H. REV. STAT. ANN. § 168-B:14 (West, Westlaw through 2012 Legis. Sess.), VA. CODE ANN. § 54.1-2971.1 (West, Westlaw through 2012 Legis. Sess.). The federal requirements have not been enforced against egg brokers or agencies that contract with physicians or fertility clinics who actually harvest and implant the donated egg. *See supra* Part I.

141. *See* Suriya E.P. Jayanti, *Guarantors of Our Genes: Are Egg Donors Liable for Latent Genetic Disease?*, 58 AM. U. L. REV. 405, 425–57 (2008) (discussing liability issues egg donors may encounter).

142. *Id.* at 408.

143. *See* Jayanti, *supra* note 141, at 435; Reich & Swink, *supra* note 14, at 43–49; *see generally* Levens & DeCherney, *supra* note 107, at 2175 (discussing informed consent and possible negative effects the donor may suffer).

Second, California specifically prohibits egg harvesting if the surgeon performing the procedure has a financial interest in the outcome.¹⁴⁴ This conflict of interest provision is important in light of the fact that many researchers have a financial stake in their research.¹⁴⁵ Additionally, most current statutes fail to address the issue of providers or clinics who have a financial interest in egg harvesting for reproductive purposes.¹⁴⁶ For this reason, a statute that fails to address this conflict of interest leaves a substantial gap because many providers have an ownership interest in the fertility clinics where they practice (and may also have ownership interests in egg donation or surrogacy agencies to which they refer patients).¹⁴⁷ Most physicians do not disclose this information to their patients, thus providing “the perfect cover for extortion and criminal activity.”¹⁴⁸ Requiring all clinics, surgeons, and providers to disclose any conflicts of interest or financial interests to both the donor and recipient could close this gap.

Third, California mandates that egg donors who contribute their eggs for research purposes may only be compensated for direct expenses, such as travel costs, medical expenses, and recovery time.¹⁴⁹ Permitting donors to be compensated but limiting reimbursement to direct expenses is an excellent way to restrict compensation amounts without completely prohibiting egg donation.¹⁵⁰ However, California does not limit the dollar amount of compensation or provide guidelines for compensating IVF egg donors.¹⁵¹ Cali-

144. See *Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE § 125344 (West, Westlaw through 2012 Legis. Sess.).

145. See *supra* note 112 and accompanying text. The Hwang scandal in South Korea is an extreme example of the ethical violations that may occur when this restriction is not expressly mandated. California deemed this issue important enough to codify a mandate that researchers have no financial interest in the outcome of their research. See *Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE § 125344 (West, Westlaw through 2012 Legis. Sess.) (The physician or surgeon performing oocyte retrieval shall not have a “financial interest in the outcome of the research.”); see also *Guidelines for the Conduct of Human Embryonic Stem Cell Research*, INT’L SOC’Y FOR STEM CELL RES. 5–8 (2006), http://www.ite.gr/_gfx/pdf/ISSCRhESCguidelines2006.pdf.

146. See CARNEY, *supra* note 3, at 75 (“There is a clear conflict of interest when doctors and brokers are able to play the role of both profit-taking middleman and health-care provider.”); Pam Madsen, *Should Infertility Doctors Disclose Conflicts of Interest?*, THE FERTILITY ADVOCATE (May 29, 2011), <http://www.thefertilityadvocate.com/asrm-ethics-committee/should-infertility-doctors-disclose-conflicts-of-interest/>.

147. See Lahl, *supra* note 16 (discussing her observations of the relationships between fertility doctors and egg donation agencies or brokers they have a financial interest in).

148. See CARNEY, *supra* note 3, at 75.

149. See *Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE § 125355 (West, Westlaw through 2012 Legis. Sess.).

150. See *supra* notes 125–26 and accompanying text.

151. See *Fifty State Survey*, *supra* note 5, at California. For example, one of the well documented cases occurred when an egg broker solicited at Stanford University. The young woman, Papademas, was in her PhD program at Stanford when she suffered a stroke a few

ifornia has more IVF clinics than any other state in the United States and the vast majority of donated eggs are used for IVF purposes;¹⁵² this leaves a significant gap in which bad actors may use compensation to exploit donors. As discussed previously, failure to address compensation parameters and set forth legislative guidelines for eggs used for research and for reproductive purposes increases the probability that women will be exploited or unfairly induced to sell their eggs.

Fourth, California is the only state in the nation to address agencies or entities that utilize predatory advertising.¹⁵³ The guidelines set forth by the ASRM Ethics Committee state that “[a]lthough there is no consensus on the precise payment that oocyte donors should receive, at this time sums of \$5,000 or more require justification and sums above \$10,000 are not appropriate.”¹⁵⁴ The reality is that professionals do not adhere to these guidelines, as evidenced by many of the advertisements that offer exorbitant compensation for “exotic” donors that have particular characteristics such as SAT scores over 1400, height of 5’7” or more, blond hair, and an Ivy League education.¹⁵⁵ Thus, legislation that mandates adherence to ASRM guidelines is a powerful tool for prosecutors and donors in dealing with unethical brokers and agencies because it provides the donor with a legal recourse while giving the courts a “stick” to punish violators.¹⁵⁶

days after taking the ovulation stimulation drugs. Egg brokers target Ivy League schools and offer \$35,000 to \$100,000 for these eggs. See Papademas, *supra* note 23, at *1.

152. See 2009 *Clinic Tables and Data Dictionary*, CTRS. FOR DISEASE CONTROL & PREV., <http://www.cdc.gov/art/ARTReports.htm> (last visited Jun. 8, 2012).

153. See *Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE § 125325 (West, Westlaw through 2012 Legis. Sess.). Predatory advertising combined with the prevalent lack of truly informed consent about the long-term risks of egg harvesting creates a very dangerous situation for potential donors, who are often vulnerable women with significant financial obligations. See Jennifer J. Black, *Egg Donation: Issues & Concerns*, 35 AM. J. MATERNAL CHILD NURSING 132, 134 (2010) (citing a previous study noting evidence that “oocyte donor programs may in fact be minimizing or misrepresenting the existence of risk to prospective donors”); Levine, *supra* note 22, at 27–33 (discussing predatory advertising).

154. See Ethics Committee of the American Society for Reproductive Medicine, *supra* note 107 at 305, 308.

155. Levine, *supra* note 22, at 27–33 (analyzing advertisements by egg brokers, agencies, and individuals and concluding that the majority of the advertisements violate ASRM guidelines by offering compensation well above recommended guidelines). Exotic donors, i.e., those with high SAT scores, Ivy League educations, and particular physical attributes (blue eyes, blond hair, height of 5’7” or more) could be offered as much as fifty to one hundred thousand dollars for their eggs, calling “into question the notion that the current self-regulatory framework provides appropriate ethical protections for oocyte donors.” *Id.* at 27; see also Helen M. Alvaré, *supra* note 116 at 13–14 (discussing several widely publicized advertisements for exotic donors).

156. The full power of this tool remains to be seen. There are two class action lawsuits pending on this issue in California—the first in the nation. See Brief for Petitioner, *Levy v. Am. Soc’y for Reprod. Med.*, No. C11-03803, 2011 WL 3373300 (N.D. Cal. Aug. 2, 2011);

Fifth, California requires that eggs extracted for research purposes must comply with legislative guidelines whether they were procured in-state or out-of-state.¹⁵⁷ These requirements include keeping a written record of every oocyte used for research,¹⁵⁸ creating an anonymous registry of embryos available for research,¹⁵⁹ prohibiting researchers and their immediate family members from “being a subject in the research,”¹⁶⁰ and requiring that an institutional review board (IRB) monitor the research.¹⁶¹ This legislation is also important because it implicitly recognizes some of the ethical issues that have occurred when researchers have imported eggs from other states or other countries to avoid compliance with local regulatory guidelines.¹⁶²

Sixth, California implemented several statutes that address the disposition of oocytes and attempt to honor the donor’s preferences regarding the disposition of any unused genetic material.¹⁶³ This is significant because much of the litigation thus far has been related to errors (eggs were destroyed, improperly preserved, or implanted into the wrong person) or misconduct (eggs were intentionally destroyed or shared with multiple recipients to increase profits without the donor’s knowledge).¹⁶⁴ Most importantly, California provides a legal recourse and a criminal penalty for providers that

Brief for Petitioner, *Kamakahi, v. Am. Soc’y for Reprod. Med.*, No. CV-11-1781-JCS, 2011 WL 1374902 (N.D. Cal. Apr. 12, 2011). These cases were consolidated on March 14, 2012. *See Kamakahi v. Am. Soc. for Reprod. Med.*, No. C11-01781 SBA, 2012 WL 892163, at *1 (N.D. Cal. Mar. 14, 2012).

157. *Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE §125346 (West, Westlaw through 2012 Legis. Sess.).

158. *Id.* at CAL. HEALTH & SAFETY CODE §125342 (West, Westlaw through 2012 Legis. Sess.).

159. *Id.* at CAL. HEALTH & SAFETY CODE §125305 (West, Westlaw through 2012 Legis. Sess.).

160. *Id.* at CAL. HEALTH & SAFETY CODE § 125343 (West, Westlaw through 2012 Legis. Sess.).

161. *Id.* at CAL. HEALTH & SAFETY CODE § 125341 (West, Westlaw through 2012 Legis. Sess.); *see also* Int’l Soc’y for Stem Cell Res., *Guidelines for the Conduct of Human Embryonic Stem Cell Research*, 5–8 (Dec. 21, 2006), http://www.ite.gr/_gfx/pdf/ISSCRhESCguidelines2006.pdf.

162. *See* CARNEY, *supra* note 3, at 113; Int’l Soc’y for Stem Cell Res., *supra* note 161, at 8 (citing the need for institutional review of oocytes procured for research to “ensure that vulnerable populations are not exploited due to their dependent status or comprised ability to offer fully voluntary consent”).

163. *See Fifty State Survey*, *supra* note 5, at CAL. HEALTH & SAFETY CODE § 125315 (West, Westlaw through 2012 Legis. Sess.), CAL. HEALTH & SAFETY CODE § 125345 (West, Westlaw through 2012 Legis. Sess.), CAL. BUS. & PROF. CODE § 2260 (West, Westlaw through 2012 Legis. Sess.).

164. *See supra* notes 23, 77 and accompanying text.

intentionally or knowingly misuse donated reproductive material in express violation of the donor's wishes.¹⁶⁵

Finally, California's legislation does not address quality control issues, which opens up the possibility of consumer exploitation.¹⁶⁶ Because IVF procedures involve complex technology that often has a low rate of success depending on the recipient's health and various physiological factors, it is possible for clinics and practitioners to take advantage of a consumer's ignorance regarding the differences in the quality of treatment, the technology available, and the provider's level of experience.¹⁶⁷ Consumers are often unaware that the provider's expertise and the technology used during the ART procedure may also be linked to birth defects or other serious health issues.¹⁶⁸ Additionally, in smaller states such as Arkansas, New Hampshire, New Mexico, North Dakota, or Idaho, there may only be one fertility clinic in the state; thus, there is no competition, much less any oversight that might serve to protect consumers.¹⁶⁹

For example, a small fertility practitioner may grade a certain set of embryos as "excellent," while a well-established clinic located in a large metropolitan area may grade the same embryos as "fair."¹⁷⁰ This disparity in "product quality" combined with the natural opacity of the clinic's practices and available technology increases the likelihood of fraud.¹⁷¹ Because consumers in these circumstances are unaware that the disparity in quality exists, much less the difference in skill or practical knowledge between clinics, they may spend thousands of dollars for a procedure carried out with non-viable eggs.¹⁷²

IV. RECOMMENDATIONS

While the initial visceral reaction by many has been to push for a legal ban on compensation for egg donors as a means of eliminating exploitation or commodification of donors or of human eggs, the fact is that Louisiana is the only state to adopt this approach; all other states that have attempted to

165. See *Fifty State Survey*, *supra* note 5, at CAL. PENAL CODE § 367g(a) (West, Westlaw through 2012 Legis. Sess.).

166. See Reich & Swink, *supra* note 14, at 22–25 (discussing the need for establishing clear quality control standards).

167. See Heled, *supra* note 15, at 281 (noting that ART consumers are the "least informed and least equipped party" to assess the risks in the ART procedure).

168. See *id.* at 277.

169. See *Assisted Reproductive Technology*, *supra* note 30, at Spreadsheet of Clinic Tables and Data Dictionary.

170. Interview with Jane Doe, Attorney (Oct. 20, 2011). The interviewee requested that her full name be omitted to protect her privacy.

171. See Jim Hawkins, *Financing Fertility*, 47. HARV. J. ON LEGIS. 115, 135 (2010).

172. See *id.*

adopt similar legislation have not been successful.¹⁷³ At the other end of the spectrum, only three states have been able to pass legislation permitting the donor to be compensated for her eggs regardless of the intended purpose.¹⁷⁴ In between these two positions are the states that have no legislation addressing eggs used for research or IVF purposes, and California's legislative approach, which prohibits compensation for research, but is silent on eggs used for IVF purposes.¹⁷⁵ At the same time, the federal government has shown an unwillingness to impose sweeping legislation on the states, create new agencies to regulate this industry, or modify the regulatory authority of existing agencies, such as the Federal Drug Administration or the Centers for Disease and Prevention Control.¹⁷⁶

The solution to this issue must be multi-faceted and must take into consideration the underlying moral and ethical concerns, balanced by an understanding of how the global market for eggs is exerting pressure on the market for eggs within the United States.¹⁷⁷ A comprehensive legislative package is needed in each state that addresses eggs used for research and those used for IVF purposes, closing the major gaps that unethical actors could exploit to their benefit.

A better alternative would be for each state to allow reasonable compensation for donors of eggs for either purpose, while mandating informed consent and full disclosure of known risks from the surgical procedure and the drug protocols used.¹⁷⁸ States could specify acceptable ranges of compensation and enforce compliance through a statutory mechanism. Federally mandated incentives could be applied to encourage states to adopt this approach.¹⁷⁹ Additionally, if a national registry were created for IVF donors, like those already being used to monitor embryos used for stem cell research, this would facilitate surveillance efforts by requiring providers and clinics to track the disposition of each oocyte utilized and retain donors' medical records, thus aiding researchers attempting to track long-term side

173. See, e.g., H.B. 2907, 53d Leg., 2d Sess. (Okla. 2011).

174. See *Fifty State Survey*, *supra* note 5.

175. See *supra* notes 133, 149 and accompanying text.

176. See Reich & Swink, *supra* note 14, at 25 (citing Brenda Reddix-Small, *Assessing the Market for Human Reproductive Tissue Alienability: Why Can We Sell Our Eggs but Not Our Livers?*, 10 VAND. J. ENT. & TECH. L. 643, 645–46 (2008) (“With practically every aspect of human-to-human tissue transfer in the United States regulated, the lack of regulatory control over human egg donation in particular . . . speaks volumes about the acceptance of a free market approach to ART.”)).

177. See also Waldby, *supra* note 49 and accompanying text.

178. See *supra* notes 66–69 and accompanying text.

179. E.g., *S. Dakota v. Dole*, 483 U.S. 203, 211–12 (1987) (holding Congress can encourage states to adhere to federal regulations by conditioning receipt of federal monies upon compliance, which would create uniformity in the states).

effects.¹⁸⁰ Currently, no records are kept of how many times donors donate their eggs.¹⁸¹ Often, clinics do not keep donors' medical records, making it difficult for donors to seek recourse if they experience complications and making it impossible for researchers to effectively monitor donors for long-term side effects such as infertility and increased risk of cancer.¹⁸² Finally, states should enact legislation prohibiting predatory advertising and mandating compliance with ASRM recommended guidelines.¹⁸³ Enacting such legislation would give donors a remedy that the courts could enforce, while also protecting young donors who may not realize the risk of cancer and other long-term effects are much higher with repetitive donations.¹⁸⁴

If there is no national consensus on how to address this issue, unethical entities and providers will continue to take advantage of existing gaps in legislation to exploit women.

V. CONCLUSION

There are no easy answers to these thorny problems. ART technology has existed for over thirty years, yet there is very little legislation enacted to protect women from exploitation, indicating that the most common legislative response to this complex issue is to make no decision in the hopes that the problem will resolve itself in time. The 'bad actors' that are present in any such ill-defined or poorly regulated arenas are currently exploiting the lack of regulation, as well as making a lucrative business of performing risky procedures on women who are unaware of the long-term dangers to their health and fertility. States must take action to address eggs used for research and IVF purposes. Only a comprehensive legislative solution has any hope of mitigating abuses while giving injured women a legislative recourse.

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180. See *Guidelines for the Conduct of Human Embryonic Stem Cell Research*, *supra* note 161, at 11.

181. See Schneider, *supra* note 13, at 1.e2.

182. See Sunni Yuen, *An Information Privacy Approach to Regulating the Middlemen in the Lucrative Gametes Market*, 29 U. PA. J. INT'L L. 527, 550 (2007) ("Since sperm and ova banks are not physicians, they do not have any 'medical or legal obligation to maintain these records,' which means that middlemen are not subject to scrutiny" for failure to maintain donor records or safeguard the integrity of these records.).

183. See *supra* note 24 and accompanying text.

184. See Schneider, *supra* note 13, at 1.e3.

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