ARTICLE

SHOULD UNCLAIMED FROZEN EMBRYOS BE CONSIDERED ABANDONED PROPERTY AND DONATED TO STEM CELL RESEARCH?

BETH E. ROXLAND* & ARTHUR CAPLAN**

"As science races ahead, it leaves in its trail mind-numbing ethical and legal questions."[1]

INTRODUCTION

On August 13, 2012, the Chief Counsel to the Department of the Treasury for the Commonwealth of Pennsylvania called Dr. Arthur Caplan, the Head of the Division of Medical Ethics at the NYU Langone Medical Center, and presented a fascinating dilemma. A private fertility service provider had notified the Chief Counsel's office that it was in possession of reproductive materials, including sperm and frozen embryos, from another fertility clinic that had ceased its formal operations in 2007.[2] The original creators and donors of the biological materials in question either had died without leaving instructions as to disposition of the materials or the original consent forms pertaining to the materials could not be located. Despite the clinic's best efforts to track down the progenitors' whereabouts to ascertain their dispositional desires, the clinic was unable to do so. The progenitors had not paid clinical storage fees in over five years, and had no contact with the clinic during that time. The clinic had

* Beth E. Roxland, J.D., M.Bioethics is an Adjunct Professor at NYU Law School, and an Associate of the Division of Medical Ethics at NYU Langone Medical Center, New York, New York. She is the former Executive Director of the New York State Task Force on Life and the Law, and the former Special Advisor to the Commissioner on Stem Cell Research Ethics.

** Dr. Arthur Caplan is the Head of the Division of Medical Ethics at NYU Langone Medical Center, New York, New York.

[1] Kass v. Kass, 696 N.E.2d 174, 178 (N.Y. 1998) (citing JOHN A. ROBERTSON, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES (1994)).

[2] Although there are biological and ethical distinctions between "embryos," "pre-embryos," and "frozen embryos," this Article will use the terms interchangeably.

no interest in maintaining the materials in a preserved frozen state at its facility and wished to turn these materials over to the Commonwealth. In turn, the Chief Counsel stated his desire to donate the embryos to stem cell research – the promising scientific field that could lead to treatments and cures to a range of illnesses and conditions – as opposed to thawing and thereby destroying the embryos at the clinic level[3] or maintaining them in a cryopreserved state indefinitely.

In contemplating its proposed course of action, the Chief Counsel faced a number of questions, primary among them whether the frozen embryos and gametes (*i.e.*, sperm and eggs) were subject to Pennsylvania's custodial care. To answer this question, a determination had to be made as to whether such reproductive materials could or should be considered "abandoned property" within the scope and meaning of Pennsylvania's Disposition of Abandoned and Unclaimed Property Act.[4] In resolving the issues related to disposition and custody of the reproductive materials, the Chief Counsel wished to be sensitive to the prior decisions made by other Pennsylvanian governmental entities, to other states that had faced similar challenges, and to the ethical obligations raised in determining the fate of human reproductive materials.

Pennsylvania certainly is not alone in grappling with this issue. Ten years ago, there were over 400,000 frozen embryos being stored in fertility clinics,[5] and the figures have since grown exponentially.[6] With the increasing prevalence of *in vitro* fertilization clinics offering cryopreservation,[7] as well as newer reproductive technologies that allow for freezing oocytes and storing ovarian and testicular tissue,[8] states and entities across the country are grappling with the legal and ethical issues surrounding the uncertain disposition of frozen embryos and reproductive materials that are no longer desired for fertility pur-

---

[3] To be clear, human embryos used in stem cell research are also destroyed during the course of the research. Presuming adherence to prevailing ethical guidelines, the embryos may not be developed beyond fourteen days or the appearance of the primitive streak. *See* Part IV, *infra*.

[4] 72 PA. STAT. ANN. §§ 1301.1-1301.29 (West 1995 & Supp. 2013).

[5] David I. Hoffman et al., *Cryopreserved Embryos in the United States and Their Availability for Research*, 79 FERTILITY & STERILITY 1063, 1066-68 (2003).

[6] *See* Susan B. Apel, *Cryopreserved Embryos: A Response to "Forced Parenthood" and the Role of Intent*, 39 Fam. L.Q. 663, 664 (2005); *see also* Marisa G. Zizzi, *Comment: The Preembryo Prenup: A Proposed Pennsylvania Statute Adopting a Contractual Approach to Resolving Disputes Concerning the Disposition of Frozen Embryos*, 21 WIDENER L.J. 391, n.4 (2012) (citing 1 LLOYD T. KELSO, NORTH CAROLINA FAMILY LAW PRACTICE § 9.4 (2010)).

[7] Lynne M. Thomas, Comment, *Abandoned Frozen Embryos and Texas Law of Abandoned Personal Property: Should There be a Connection?*, 29 ST. MARY'S L.J. 255, 260 (1997).

[8] Tuua Ruutiainen et al., *Expanding Access to Testicular Tissue Cryopreservation: An Analysis by Analogy*, 13 AM. J. BIOETHICS 28, 35 (2013).

poses, but whose disposition has not been otherwise delineated.[9]

If Pennsylvania could take custody of the embryos as "abandoned property," the Chief Counsel would then confront the second prong of the proposed plan: whether it is legal and ethically appropriate to donate the frozen embryos to stem cell research, despite the lack of any indication that the progenitors or relevant others provided consent to research, rather than clinical, usage.

To our knowledge, Pennsylvania's proposition to treat clinically-excess frozen embryos as abandoned property and then donate them to stem cell research is an issue of first impression, as no other state has issued a policy directly addressing this topic.[10] As the vast majority of unclaimed frozen embryos are simply thawed or otherwise destroyed,[11] however, states and other entities confront similar ethical tensions and legal uncertainties when considering whether to provide these embryos to further the scientific endeavor of human embryonic stem cell research.

The intent of this paper is threefold: (1) to provide a legal evaluation of whether unclaimed frozen embryos could be characterized as abandoned property, using analogous bodies of law regarding frozen embryos; (2) to conduct an ethical examination of characterizing frozen embryos as "property;" and (3) to present a comprehensive analysis of the legal and ethical implications of Pennsylvania's proposed plan to treat the embryos at issue as abandoned property and donate them to stem cell research.[12]

II. WHAT IS "ABANDONED PROPERTY" UNDER PENNSYLVANIA LAW?

In order to analyze whether unclaimed embryos could legally be considered "abandoned property," it is necessary first to understand how Pennsylvania defines the term. One must also consider the practical effect of the designation of "abandonment" under the law to determine the appropriateness of applying the abandoned property statute to frozen embryos.

According to Pennsylvania's Disposition of Abandonment and Unclaimed Property Act,[13] the term "property" includes "all real and personal property, tangible or intangible, all legal and equitable interests therein . . . and all other rights to property. . . The term shall not include property deemed lost at common law."[14] The "owner" of property includes depositors, creditors, claimants

---

[9] *See infra* Parts V, VI, & VII:B.

[10] While the legal analysis regarding abandoned property contained in this Article focuses on Pennsylvania – the site of the issue at hand – the majority of the legal discussion, as well as the ethical considerations, may be applicable across the United States.

[11] *See, e.g.*, Andrea D. Gurmankin, Dominic Sisti, & Arthur L. Caplan, *Embryo disposal practices in IVF clinics in the United States*, 22 Pol. & Life Sci. 6 (2004).

[12] Although Pennsylvania also must resolve the matter of disposition of excess frozen sperm and eggs, this Article will focus solely on embryos because it is the more sensitive and challenging issue.

[13] 72 PA. STAT. ANN. §§ 1301.1-1301.29 (West 1995 & Supp. 2013).

[14] *Id.* § 1301.1.

"or any other person having legal or equitable interest in property."[15] Notably, the owner of property does not have to physically possess the property. Others may act as "holders" of property, such as banks or other repositories.[16]

Generally, property is presumed to be abandoned and unclaimed if, among other requirements, it is in a holder's possession due and owing in the holder's ordinary course of business and "has remained unclaimed by the owner for more than five years after it became payable and distributable . . . . "[17] Under Pennsylvania law, all abandoned or unclaimed property or property without a rightful or lawful owner is subject to the custody and control of the Commonwealth.[18]

Every person or entity holding property that becomes subject to the Commonwealth's custody and control has certain reporting duties to the Commonwealth, including submitting a detailed report containing, *inter alia*, the name and last known address of the property owner, the date when the property became returnable, the nature and description of the property, and any other information the State Treasurer prescribes by regulation.[19] Failure to submit any such reports or to pay or deliver relevant abandoned property to the Treasurer may result in misdemeanor charges, imprisonment of up to 24 months, and/or monetary fines of up to $10,000.[20]

One of the main benefits for a holder, fiduciary, or other entity in possession of unclaimed property of turning over property to the State is that it releases that entity from liability for lack of payment or delivery.[21] Specifically,

> Upon the payment or delivery of the property to the State Treasurer, the Commonwealth shall assume custody and shall be responsible for the safekeeping thereof. Any person who pays or delivers property to the State Treasurer under this article is relieved of all liability with respect to safekeeping of such property so paid or delivered for any claim which then exists or which thereafter may arise or be made in respect to such property.[22]

The State Treasurer may decline to receive any item of property reported by a

---

[15] *Id.*

[16] *Id*. ("'Holder' shall include any person in possession of property . . . belonging to another . . . .").

[17] *Id*. § 1301.10(1).

[18] *Id*. § 1301.2(a). Where property is presumptively abandoned, its original owners have been found to have no claim for interest earned on the property or failure of the State to pay because the abandonment is triggered by the owners' own neglect rather than by affirmative actions taken by the State. *See, e.g.*, Smolow v. Hafer, 598 Pa. 561, 571 (2008); Simon v. Weissman, No. 04-941, 2007 U.S. Dist. LEXIS 63417 (E.D. Pa. Aug. 27, 2007), *aff'd* 301 Fed. Appx. 107 (3d Cir. 2008).

[19] 72 PA. STAT. ANN. § 1301.11 (West 1995 & Supp. 2013).

[20] *Id*. § 1301.25.

[21] *Id.*

[22] *Id*. § 1301.14. *See also id*. § 1301.16.

holder, in which case the holder shall similarly be discharged of any liability to the Commonwealth.[23] It is not clear, however, whether this statutory provision discharges the holder's liability to the property owner rather than to the Commonwealth.[24] This lack of clarity and possibility of liability to the original property holder can be of concern to the holder.

Once abandoned property is delivered to the State, the Treasurer has virtually unilateral discretion in disposing of the property.[25] In the case of tangible property that has market value, the Treasurer may sell it to the highest bidder at a public sale,[26] or where property is of a type customarily sold on a recognized market, the Treasurer may sell the property without notice by publication or otherwise.[27] Integral to the analysis of the abandoned frozen embryos at issue, Pennsylvania law also allows the Treasurer to "*donate*[] to the use of the Commonwealth . . . *or otherwise consume[] or discard*[], at the discretion of the State Treasurer where, in the opinion of the State Treasurer, the costs associated with the delivery, notice or sale exceed the value of the property."[28]

Accordingly, it is feasible under this provision that if frozen embryos were considered abandoned property, the Treasurer could not only donate them for stem cell research, but could, in his or her sole discretion, donate them for other purposes, such as human cloning or other forms of research that may be considered ethically inappropriate. This would raise a host of concerns about the appropriateness of entrusting a treasurer with a vast amount of discretion over certain biological materials considered highly sensitive by many. The Treasurer could also choose to thaw or otherwise discard the embryos outright, which too may raise ethical questions.

III. CLINICALLY-EXCESS FROZEN EMBRYOS

Individuals or couples desiring to have children may rely on reproductive technologies such as *in vitro* fertilization for a variety of reasons, such as infertility.[29] In the course of *in vitro* fertilization, embryos are formed outside of the body, usually by fertilizing an egg with sperm in a test-tube. The resultant embryos are frozen, or "cryopreserved," for later implantation in either the female who is seeking IVF or in a surrogate who will gestate the embryo.[30] Where in-

---

[23] *Id*. § 1301.22.

[24] *Id.*

[25] *See generally* 72 PA. STAT. ANN. § 1301.17 (West 1995 & Supp. 2013).

[26] *Id*. § 1301.17(a).

[27] *Id*. § 1301.17(b).

[28] *Id*. § 1301.17(c) (emphasis added).

[29] An in-depth discussion of the science and ethics of *in vitro* fertilization and other assisted reproductive technologies is beyond the scope of this Article.

[30] Reber v. Reiss, 42 A.3d 1131, 1132 n.2 (Pa. Super. 2012) (explaining that IVF "refers to the combination of male and female gametes to produce a zygote, or fertilized egg, outside the body, which can be transferred into the uterus or Fallopian tubes . . . of a woman, not necessarily the ovum provider, and gestated to term") (citing JOANNE ROSS WILDER, 17

fertility is an issue, third-party donor eggs or sperm may be combined with one of the gametes of the individual or couple involved in the IVF process.

At the initiation of *in vitro* fertilization treatments, clinics often require donors and potential parents to sign informed consent forms, which are sometimes referred to as "pre-freeze agreements." These forms vary drastically in their content. While most describe the medical procedures associated with the treatment, they differ in length and detail. Some – although far from all – outline the terms by which the clinic will preserve a cryogenically-frozen embryo, potentially including the fees associated with the freezing and the amount of time that a clinic will store a frozen embryo.[31] Forms may also describe circumstances under which the clinic will consider an embryo "abandoned."[32] Even if a clinic requires a gamete donor's consent to destroy embryos, it may nevertheless also reserve the right to destroy embryos after a given period of time or in the event that storage fees go unpaid.

Many consent forms governing IVF, particularly those drafted in recent years, provide dispositional options for frozen embryos where the embryos are no longer desired by the individuals or couples who created them. The options for disposition for embryos go beyond just research or destruction;[33] they also include donation to another couple or person wishing to conceive, training and education, and embryo "adoption."[34] Each dispositional avenue raises unique issues for the progenitors to consider.[35]

Problems often arise when an individual or couple fails to indicate, or a consent form fails to request, the desired disposition of any clinically-excess embryos in the event of certain unexpected contingencies, such as death or mental incapacitation of one of the progenitors. Divorcing couples who cannot agree on custody and disposition of the frozen embryos give rise to most of the legal predicaments. These scenarios are fraught with both legal and ethical ramifications.

WEST'S PENN. L. FAM. PRAC. & PROC. § 26:3 (7th ed. 2008)).

[31] *See* Jill R. Gorny, Note, *The Fate of Surplus Cryopreserved Embryos: What is the Superior Alternative for their Disposition?*, 37 SUFFOLK U. L. REV. 459, 467-68 & 468 n.76 (2004).

[32] *See id.* at 470-72.

[33] Alexia M. Baiman, *Cryopreserved Embryos as America's Prospective Adoptees: Are Couples Truly "Adopting" or Merely Transferring Property Rights?*, 16 WM. & MARY J. WOMEN & L. 133, 137 (2009).

[34] *See* Becky A. Ray, Comment, *Embryo Adoptions: Thawing Inactive Legislatures With a Proposed Uniform Law*, 28 S. ILL. U. L.J. 423, 424-26 (2004); *see also* Doe v. Obama, 631 F.3d 157, 159, 164 (4th Cir. 2011) (reviewing plaintiff's description of "embryo adoption" but ultimately denying frozen embryos' legal standing to sue).

[35] Natalie R. Walz, *Abandoned Frozen Embryos and Embryonic Stem Cell Research: Should There Be a Connection?*, 1 U. ST. THOMAS J. L. & PUB. POL'Y. 122, 123 (2007).

A. Statutory and Case Law on the Status of the Embryo in the Family Law Context

In general, the law places entities and objects into one of two categories: persons or property.[36] With regard to frozen pre-embryos, though, a common theme has emerged both in case law and related commentary: whether frozen pre-embryos may occupy a new intermediary category as an entity deserving of "special respect."[37] The effect of this intermediate category, however, is far from clear and rarely dispositive in the court cases categorizing embryos as such.

No federal statutory law or regulation generally governs the classification of frozen embryos. In fact, only three states have enacted legislation concerning the disposition of frozen embryos more generally: Louisiana,[38] Florida,[39] and New Hampshire.[40] Each of these state statutes reaches a different conclusion as to the classification of frozen embryos, and therefore provides little guidance to Pennsylvania on how to proceed.

There is also a dearth of case law in any U.S. jurisdiction deciding whether unclaimed frozen pre-embryos could or should be treated as "abandoned property" and therefore be amenable to the custody and control of the state.[41] The main body of jurisprudence on the status of frozen embryos comes from the

---

[36] *See, e.g.*, Moore v. Regents of the Univ. of Cal., 793 P.2d 479 (Cal. 1990) (treating a cell-line derived from the plaintiff's bodily fluids and spleen as property rather than as part of his person); Davis v. Davis, 842 S.W.2d 588, 594, 597 (Tenn. 1992) (asserting that a frozen embryo is neither a person nor property, but still deserving of "special respect"); *see also* William A. Sieck, Comment, *In Vitro Fertilization and the Right to Procreate: The Right to No*, 147 U. PA. L. REV. 435, 442-44 (1998) (stating that generally there are two possible classifications for things – persons or property – but that the courts have constructed a third, intermediary category, "special respect," for classifying frozen embryos).

[37] *See, e.g.*, York v. Jones, 717 F. Supp. 421, 426-27 (E.D. Va. 1989) (attempting to characterize the interests in frozen embryos and arguably treating the embryos as "property" of the parents); *Davis*, 842 S.W.2d at 590 (viewing this issue as one of first impression but guided by "extensive comment and analysis in legal journals").

[38] LA. REV. STAT. ANN. § 9:121-33 (2008). Louisiana has a uniquely stringent statute regulating IVF and grants embryos the legal status of "juridical person." *Id.* § 9:124.

[39] FLA. STAT. ANN. § 742.17(2) (West 2010) ("Absent a written agreement, decision making authority regarding the disposition of pre[-]embryos shall reside jointly with the commissioning couple.").

[40] N.H. REV. STAT. ANN. §§ 168-B:13-15, 168-B.18 (2002); *see also* TEX. FAM. CODE ANN. § 160.706(b) (West 2008) ("The consent of a former spouse to assisted reproduction may be withdrawn by that individual in a record kept by a licensed physician at any time before the placement of eggs, sperm, or embryos."); *see generally* Elizabeth A. Trainor, Annotation, *Right of Husband, Wife, or Other Party to Custody of Frozen Embryo, Pre-embryo, or Pre-zygote in Event of Divorce, Death, or Other Circumstances*, 87 A.L.R. 5TH 253 (2001-2004).

[41] Despite the lack of applicable law, these issues have been the subject of academic commentary. *See, e.g.,* Thomas, *supra* note 7, at 255; Walz, *supra* note 35, at 123.

divorce context, where parties argue for custody over frozen embryos. The few reported cases on this issue similarly rely on differing rationales to support their holdings.[42]

Even where a court makes explicit statements regarding the status of the embryo (*i.e.*, person, property or entity deserving of special respect), there is often a disconnect between the court's general characterization of embryos and the ordered disposition of the embryos at issue. Several opinions that initially declare it inappropriate to categorize embryos as property ultimately order that the embryos be thawed or destroyed in the course of research – remedies that arguably treat the embryos more like property than persons.[43] The court's decision on disposition often turns on the progenitor's constitutional right to privacy in reproductive matters, including the "right to procreate" and "the right to avoid procreation,"[44] rather than on whether embryos at issue are properly considered persons, property, or entities deserving of special respect.[45]

Regardless of whether the ultimate disposition is dictated by parties' rights of privacy, case law on custody of frozen embryos upon divorce provides the richest legal exploration of the status of the embryo. Therefore, these opinions are addressed in turn below based on which of the three fundamental approaches the court employs to resolve the custody dispute: (1) contractual, (2) mutual consent, or (3) balancing of the interests.[46]

1. The Contractual Approach

In the seminal case of *Kass v. Kass*, the New York Court of Appeals en-

---

[42] *See In re* Marriage of Witten, 672 N.W.2d 768 (Iowa 2003); A.Z. v. B.Z., 725 N.E.2d 1051 (Mass. 2000); J.B. v. M.B. 783 A.2d 707 (N.J. 2001); Kass v. Kass, 696 N.E.2d 174 (N.Y. 1998); *In re* Marriage of Dahl, 194 P.3d 834 (Or. Ct. App. 2008); Reber v. Reiss, 42 A.3d 1131 (Pa. Super. 2012); Davis v. Davis, 842 S.W.2d 588 (Tenn. 1992); Roman v. Roman, 193 S.W.3d 40 (Tex. App. 2006); Litowitz v. Litowitz, 48 P.3d 261 (Wash.) (*en banc*), *amended sub nom. In re* Marriage of Litowitz 53 P.3d 516 (Wash. 2002); *In re* Marriage of Nash, 150 Wash. App. 1029 (2009).

[43] *See* Judith F. Daar, *Frozen Embryo Disputes Revisited: A Trilogy of Procreation-Avoidance Approaches,* 29 J.L. MED. & ETHICS 197, 201 (2001) ("The cases addressing preconception agreements, though each employs distinct reasoning, seem united in their adoption of procreation avoidance to resolve disputes over frozen embryos."); Ellen Waldman, *The Parent Trap: Uncovering the Myth of "Coerced Parenthood" in Frozen Embryo Disputes,* 53 AM. U.L. REV. 1021, 1027 (2004) ("The five state supreme courts that have ruled on frozen embryo disputes have signaled that the right to avoid procreation requires greater legal protection than does the right to procreate. In reaching this conclusion, the courts have emphasized the negative right to be free of unwanted familial relations.").

[44] *See, e.g.*, *J.B.*, 783 A.2d at 715-16. Notably, no court has confronted the situation where a cryopreservation agreement permitted unilateral use by either progenitor of the frozen pre-embryos for implantation or other reproductive use over the objection of the other progenitor.

[45] *But see Reiss,* 42 A.3d at 1131, discussed *infra* at Section III.A.3.

[46] *See Witten*, 672 N.W.2d at 774 ; *see also* Zizzi, *supra* note 6 at 399-400.

forced the divorcing parties' cryopreservation contract, which contained a provision that embryos initially created for personal IVF use should be donated to research in the event that the couple was unable to agree on a disposition. [47] Upon divorce, the wife filed for sole custody of the embryos, arguing that they were her only chance for genetic motherhood.[48] The lower court initially awarded possession of embryos to the wife, reasoning in part that one cannot have the "right to take positive steps to terminate a potential human life," and that the wife had a legal right to implant the embryos within a medically reasonable time.[49] The Appellate Division reversed unanimously, instead choosing to enforce the cryopreservation agreement's provision requiring donation to research. This contractual approach to resolving the custody dispute was affirmed by the highest court in New York, which asserted that "[a]greements between progenitors, or gamete donors, regarding the disposition of their pre-zygotes should generally be presumed valid and binding, and enforced in any dispute between them,"[50] on a number of public policy grounds. The court went on to state that it is "particularly important that courts seek to honor the parties' expressions of choice, made before disputes erupt, with the parties' over-all direction always uppermost in the analysis."[51] Since the couple had manifested their intent prior to any disputes, the court found it in the interest of public policy to enforce this stated intent. Notably, the court averred that embryos do not enjoy the protections afforded "persons" under the law.[52] Accordingly, by enforcing the cryopreservation agreement requiring donation to research, which would result in the destruction of the embryo, over the wife's desire to implant the embryo for purposes of reproduction, the court arguably treated the embryo more like property than a person.

The Washington Supreme Court took a similar contractual approach to resolving an embryo custody dispute in *Litowitz v. Litowitz*,[53] which involved a married couple that had created five pre-embryos using a third-party egg donor and a surrogate in whom three of the embryos were implanted. The cryopreservation agreement regarding the two remaining embryos stated that, in the event that the couple was unable to reach a mutual agreement regarding dispo-

---

[47] *Kass*, 696 N.E.2d at 176-77 ("In the event that we no longer wish to initiate a pregnancy or are unable to make a decision regarding the disposition of our stored, frozen pre-zygotes . . . [o]ur frozen pre-zygotes may be examined by the IVF Program for biological studies and be disposed of by the IVF Program for approved research investigation as determined by the IVF Program . . . .").

[48] *Id.*

[49] Kass v. Kass, No. 19658-93, 1995 WL 110368, at *3 (N.Y. Sup. Ct. Jan. 19, 1995), *rev'd*, 663 N.Y.S.2d 581 (N.Y. App. Div. 1997), *aff'd*, 696 N.E.2d 174 (N.Y. 1998).

[50] *Kass*, 696 N.E.2d at 180.

[51] *Id.*

[52] The court did not expressly rule on the issue of whether embryos should be afforded "special respect." *Id.* at 179.

[53] 48 P.3d 261 (Wash. 2002), *amended sub nom. In re* Marriage of Litowitz, 53 P.3d 516 (Wash. 2002).

sition, a court must decide the disposition.[54] The contract also provided that any embryos cryopreserved beyond five years would "be thawed but not allowed to undergo further development."[55] In the subsequent divorce proceedings, the Washington Supreme Court reversed the lower court's decision awarding custody of the embryos to the husband, instead enforcing the provision in the cryopreservation contract requiring thawing after five years of storage. The court explicitly based its decision on the "contractual rights of the parties" rather than on any other right or interest in the embryos.[56]

The same contract analysis has been applied in several other cases, all resulting in the destruction of the frozen embryo by thawing or by donations to research. For example, in the 2006 case of *Roman v. Roman*, the Texas Court of Appeals overturned the lower court's award of custody of disputed frozen embryos to the wife for implantation over the husband's objection. The court instead ordered that the embryos be discarded according to the original cryopreservation agreement, which stated that frozen embryos would be discarded in the event of divorce.[57] In doing so, the court found that the trial court abused its discretion in not enforcing the original agreement between the parties and that by "awarding the frozen embryos to [the wife], the trial court improperly rewrote the parties' agreement instead of enforcing what the parties voluntarily decided in the event of a divorce."[58]

A similar fact pattern arose in *In re Marriage of Dahl*, where a couple signed a cryopreservation agreement stating that in the event of divorce, the wife would have decisional authority over the frozen embryos.[59] Upon divorce, the wife wished for the frozen embryos to be discarded, while the husband wished to donate the embryos to another couple for fertility purposes.[60] The Oregon Court of Appeals again chose to enforce the cryopreservation agreement, stating that it is "just and proper to dispose of the embryos in the manner that the parties chose at the time that they underwent the IVF process" and ordering the embryos be destroyed.[61]

2. The Contemporaneous Mutual Consent Model

Under the contemporaneous mutual consent framework for analyzing disposition of frozen embryos, courts use an approach similar to the contract model but forbid any transfer of embryos for reproductive purposes (to the progenitors or other individuals), research, or destruction unless there is contemporaneous mutual consent by *both* parties at the time that the action is to be taken.

---

[54] *Id.*

[55] *Id.* at 271.

[56] *Id.*

[57] Roman v. Roman, 193 S.W.3d 40, 55 (Tex. App. 2006).

[58] *Id.* at 54-55.

[59] *In re* Marriage of Dahl, 194 P.3d 834, 837 (Or. App. 2008).

[60] *Id.*

[61] *Id.* at 842.

Thus, this model differs from the contractual approach in that it will overlook an original mutual agreement between the parties (*e.g.*, the cryopreservation agreement), and instead allow either party to change his or her mind until a court renders a decision.[62] This model also dictates that where the parties cannot currently reach a mutual agreement, the most suitable solution is to leave the embryos in the status quo situation: cryopreserved in storage.[63]

The case that best exemplifies this approach is *In re Marriage of Witten*, in which the Iowa Supreme Court examined a cryopreservation agreement that contained no contingencies in the event of divorce.[64] In that case, the wife wanted custody of the frozen embryos to implant into a surrogate so that she might have genetically related children, but the husband opposed this usage.[65] The court required "contemporaneous mutual consent" of both parties and held that without such agreement, no use or disposition of the embryos was permissible.[66] "If a stalemate [between the parties] results, the status quo would be maintained. The practical effect will be that the embryos are stored indefinitely unless both parties can agree to destroy the fertilized eggs."[67] In addition, the court also held that the person opposed to the destruction of the embryos would be responsible for paying the cryopreservation storage fees.[68]

3. The Balancing Test

The first case to ever address the issue of custody of frozen pre-embryos upon the divorce of a couple arose in 1992, when the Tennessee Supreme Court decided *Davis v. Davis*.[69] In *Davis,* both the trial and appellate courts took great pains to sort out the scientific and legal testimony regarding the frozen embryos at issue.[70] The lower court's opinion began by analyzing whether frozen embryos should be categorized as "pre-embryos" and found pre-embryos should not be considered "persons" under either Tennessee[71] or federal law.[72] The court also held that pre-embryos were not appropriately characterized as

---

[62] Carl H. Coleman, *Procreative Liberty and Contemporaneous Choice: An Inalienable Rights Approach to Frozen Embryo Disputes*, 84 MINN. L. REV. 55, 81 (1999).

[63] Zizzi, *supra* note 6, at 406-07.

[64] *In re* Marriage of Witten, 672 N.W.2d 768, 772 (Iowa 2003).

[65] *Id.*

[66] *Id.* at 783.

[67] *Id.*

[68] *Id.*

[69] 842 S.W.2d 588, 590-91 (Tenn. 1992) (discussing the various theories that have been posited in legal literature for the disposition of frozen embryos when marriages dissolve).

[70] *See id.* at 592-94 (discussing the lower courts' analysis of the scientific testimony).

[71] *Id*. at 594 (affirming the Court of Appeal's determination that Tennessee does not consider pre-embryos "people" because it does not hold termination of pre-viable life to be a violation of the State's Wrongful Death Statute).

[72] *Id*. at 595 (citing Webster v. Reprod. Health Servs., 492 U.S. 490 (1989); Roe v. Wade, 410 U.S. 113 (1973)).

"property,"[73] and instead concluded that "preembryos are not, strictly speaking, either 'persons' or 'property,' but occupy an interim category that entitles them to special respect because of their potential for human life."[74] In so stating, the opinion attempted to afford embryos greater respect than other human tissue because of their potential to become a person and because of its symbolic meaning.

Using a test that balances the parties' relative interests, the court stated that "[o]rdinarily, the party wishing to avoid procreation should prevail, assuming that the other party has a reasonable possibility of achieving parenthood by means other than the use of the pre-embryos in question."[75] Despite that the couple in *Davis* had undergone multiple failed attempts at IVF and the wife's relatively advanced age, the court nevertheless asserted that the wife had alternatives for bearing a genetically-matched child in addition to using the frozen embryos at issue.[76] In finding for the husband, who desired that the embryos be thawed and destroyed, the court arguably treated the embryos as "property." [77]

Courts also have applied a balancing-of-the-interests test where cryopreservation contracts were ambiguous or unenforceable for other reasons. For example, the Massachusetts Supreme Judicial Court in *A.Z. v. B.Z.* found the cryopreservation agreement unenforceable because of deficiencies in the consent process.[78] Nevertheless, the court noted that even if the pre-freeze agreement was unambiguous, the court still "would not enforce an agreement that would compel one donor to become a parent against his or her will."[79] The court went so far as to assert that, as a matter of public policy, forced procreation is not amenable to judicial enforcement.[80] In *J.B. v. M.B.*, the Appellate Division of New Jersey's Superior Court followed the public policy direction of *A.Z. v. B.Z.,* favoring the first party's right not to procreate over the second party's desire to use the frozen embryos for procreative purposes, provided that the second party retained the capacity to have children with someone else.[81] In these

---

[73] Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992) (holding that embryos are neither property nor persons).

[74] *Id*.

[75] *Id.* at 604 ("[The wife's] interest in donation is not as significant as the interest [the husband] has in avoiding parenthood."); *see* Daar, *supra* note 43, at 200.

[76] *See id.* at 591.

[77] *Davis*, 842 S.W.2d at 604.

[78] *A.Z. v. B.Z.*, 725 N.E.2d 1051, 1054 (Mass. 2000) (noting that the wife filled in the disposition options after the husband signed the informed consent form).

[79] *Id.* at 1057.

[80] *Id.* at 1059.

[81] 751 A.2d 613, 619 (N.J. Super. Ct. App. Div. 2000) ("[E]nforcement of the . . . contract to create a child would impair the wife's constitutional right not to procreate, whereas permitting destruction of the embryos would not effectively impair the husband's reproductive rights."). It is useful to note that in *J.B. v. M.B.,* the gender roles were reversed, with the woman seeking to prohibit her ex-husband from using the embryos for procreation with another woman.

circumstances, the courts did not treat the frozen pre-embryos as persons and did not accord the embryos personhood rights. To the contrary, the courts often ordered destruction, either directly or through donation to research, thereby treating the embryos akin to property.

Most recently, a trial court in Pennsylvania – the jurisdiction of current inquiry – became the first to find in favor of a divorcing spouse who wanted to use the frozen embryos in dispute for procreation over the other spouse's objection. In *Reber v. Reiss*, the court used a balancing of the interests approach and awarded 13 frozen pre-embryos to the wife, who had undergone extensive breast cancer treatment and believed she was not fertile at the time of her divorce.[82] Upon the husband's appeal, the Superior Court first examined the informed consent documents the couple had signed regarding the storage of the pre-embryos. Importantly, neither party signed the portion of the pre-freeze agreement designating a disposition of remaining embryos in the event of a divorce or death of one of the parties.[83] However, the pre-freeze agreement stated that embryos would be destroyed by the clinic after three years, so long as the couple received notice.[84] The husband argued that the court should enforce the destruction provision rather than award the wife custody of the embryos for the purpose of implantation for numerous reasons, including his right not to procreate.

The *Reiss* court began its analysis by looking to other jurisdictions' handling of custody of frozen embryos upon divorce and found the trial court's reliance on the balancing approach used in *Davis* to be reasonable, particularly in light of the absence of prior mutual agreement of the parties regarding disposition.[85] In addition, despite the husband's insistence otherwise, the court ruled that the provision in the cryopreservation contract requiring mandatory destruction of frozen embryos after three years was really an agreement between the parties and the clinic, rather than between the husband and wife.[86] Accordingly, the court found the husband's expectation that this provision would be enforced unreasonable under the circumstances.[87]

Finally, in balancing the parties' interests, the court considered the wife's age (forty-four), medical condition, and interest in becoming a mother, stating that "the ability to have biological children and/or be pregnant is a distinct ex-

---

[82] Reber v. Reiss, 42 A.3d 1131, 1133, 1142 (Pa. Super. 2012).

[83] *Id.* at 1136.

[84] *Id.*

[85] *Id.* at 1136-37.

[86] *Id.* at 1136.

[87] *Id.* Here, no notice had been provided to the parties regarding destruction, as was required by the cryopreservation agreement. *Id.* This aspect of the holding is consistent with the cases discussed *infra* in Section III.A.4., which find in favor of individuals' rights to an embryo vis-à-vis a clinic that is storing the embryos. *See generally* York v. Jones, 717 F. Supp. 421 (E.D. Va. 1989).

perience from adopting."[88] It weighed these interests against the husband's interest in avoiding procreation as well as other responsibilities attendant to having children, but found these concerns speculative and also expressed satisfaction with the wife's representations regarding any future obligations. The court also stated that the husband had implicitly agreed to procreate with his wife by undergoing IVF in the first instance, and that the use of the pre-embryos was never made contingent on the parties remaining married.[89] Ultimately, the court held that the balance of the relative interests weighed in favor of the wife and awarded her custody of the embryos for implantation.[90]

4. Family Law Cases Outside of the Divorce Context

A related context in which the characterization of frozen pre-embryos has arisen is where couples have litigated against fertility clinics to regain possession of the embryos.[91] For example, in a 1989 case of first impression, the United States District Court for the Eastern District of Virginia in *York v. Jones*[92] was asked to decide whether a fertility clinic possessing a couple's frozen embryo should be required to transfer the embryo to another clinic closer to where the couple moved.[93] While not directly declaring that the frozen embryos were "property," the court held that the cryopreservation agreement between the couple and the original clinic created a "bailor-bailee" relationship and that the current clinic was obligated to return the subject of the bailment – the frozen embryo – to the couple when "the purpose of the bailment terminated."[94]

IV. CASE LAW ON FROZEN EMBRYOS' STANDING TO BRING SUIT

As legal challenges to funding for human embryonic stem cell research have become more prevalent,[95] a handful of opinions have addressed the legal stand-

---

[88] *Reiss*, 42 A.3d at 1138.

[89] *Id.* at 1140-41. The husband raised the issue of financial responsibility for any children conceived, but the court declined to make a specific finding on that issue. *Id.* The court noted, however, that while the wife vowed not to pursue child support, a child's right to support cannot be bargained away. *Id.*

[90] *Id*. at 1142.

[91] *See* Zizzi, *supra* note 6, at 397-98.

[92] 717 F. Supp. at 421 (E.D.Va. 1989).

[93] *Id.*

[94] *Id*. at 425. *See also* Hecht v. Superior Court of Cal., 20 Cal. Rptr. 2d 275, 280-81 (Cal. Ct. App. 1993) (treating cryogenically preserved sperm like property and asserting that the probate court had jurisdiction over its disposition). *Compare York*, 717 F. Supp. at 425 (holding that the law treats stored frozen embryos similar to property in a bailor-bailee relationship), *with* Janicki v. Hosp. of St. Raphael, 744 A.2d 963, 971 (Conn. Super. Ct. 1999) (deciding that a still-born nineteen week old fetus was sufficiently akin to an embryo, and therefore should be treated with "special respect").

[95] *See, e.g.*, Feminists Choosing Life v. Empire State Stem Cell Bd., 87 A.D.3d 47 (N.Y.

ing of an embryo to bring claims in a court of law. In the most notable case to date, *Sherley v. Sebelius*, a group of plaintiffs challenged the National Institutes of Health ("NIH") Guidelines for federal funding of human embryonic stem cell research.[96] One of the named plaintiffs was "embryos," defined as "all individual human embryos that were created for reproductive purposes, but are no longer needed for those purposes."[97] In holding that "embryos" lacked standing to sue because plaintiffs had not shown a particularized injury fairly traceable to the challenged actions,[98] the District Court explicitly ruled that "embryos are not 'persons' under the law."[99] In so holding, the court stated:

> [This case] concerns whether an embryo qualifies as a person in order to assert a liberty interest. The Supreme Court has stated that "the unborn have never been recognized in the law as persons in the whole sense" and that they have no right to life protected under the Fourteenth Amendment. Accordingly, the Court concludes that the embryos lack standing because they are not persons under the law.[100]

V. CASE LAW CONCERNING DISPOSITION AND ABANDONMENT OF NON-REPRODUCTIVE BIOLOGICAL MATERIALS

In support of its proposal to treat unclaimed embryos as abandoned property, Pennsylvania may cite case law concerning abandonment of other body parts. In the landmark case of *Moore v. Regents of the University of California*,[101] Moore sued his doctor and his doctor's affiliates for conversion and breach of disclosure obligations after they patented a cell line based on Moore's tissues without Moore's knowledge.[102] In *Moore*, clinicians at the re-

---

App. Div. 2011) (denying plaintiffs' challenge to New York's stem cell board's policy of allowing compensation for women who donate their oocytes to stem cell research).

[96] *See* 686 F. Supp. 2d 1 (D.D.C. 2009), *aff'd in part, rev'd in part*, 610 F.3d 69 (D.C. Cir. 2010). *See also* Sherley v. Sebelius, 776 F. Supp. 2d 1 (D.D.C. 2011), *aff'd*, 689 F.3d 776 (D.C. Cir. 2012).

[97] *Sherley*, 686 F. Supp. 2d at 3.

[98] Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc., 528 U.S. 167, 180-81 (2000). Specifically, a plaintiff must show that "(1) it has suffered an 'injury in fact' that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Id.* *See also* Allen v. Wright, 468 U.S. 737, 750 (1984).

[99] *Sherley*, 686 F. Supp. 2d at 5.

[100] *Id.* at 5-6 (quoting Roe v. Wade, 410 U.S. 113, 158, 162 (1973)). *See also* Doe v. Obama, 631 F.3d 157, 160, 162-64 (4th Cir. 2011) (holding that a class of frozen embryos does not have standing to sue to enjoin federal funding of human embryonic stem cell research, in part because plaintiffs failed to show a "sufficient allegation of harm to the named plaintiff in particular").

[101] 793 P.2d 479 (Cal. 1990).

[102] *Id.* at 482-83.

moved Moore's spleen with his written consent in the regular course of treatment for hairy cell leukemia.[103] Upon removal of his spleen, the clinicians discovered that Moore's tissue potentially could be used to create special disease- and cancer-fighting products, which Defendants eventually developed and successfully patented.[104] Moore had not been informed of and had not consented to the use of his excised tissue for research purposes, and had not received any financial benefit from the commercially-profitable product derived from his tissue.[105]

The California Supreme Court allowed Moore's tort claims for breach of fiduciary duty and lack of informed consent but significantly denied his claim for conversion of property. In finding against Moore, the court rejected his argument that he "continued to own his cells following their removal from his body, at least for the purpose of directing their use . . . ." [106] The *Moore* court reasoned that, in order to establish conversion, a person must have title to the property and expect to retain its possession. The court found that Moore did not expect to retain possession of his spleen after it had been removed, and that this lack of expectation to reclaim possession was sufficient to negate any ownership interest in his spleen and cells.[107] The court ultimately found that the cell line derived from Moore's spleen was in fact property, but that the rights to the property belonged to the researchers.[108]

Although this case is susceptible to several interpretations,[109] Pennsylvania could use it to support an argument that because the gamete donors or individ-

---

[103] *Id.* at 481. Notably, however, Moore also was subjected to numerous extractions of his blood, bone marrow, and skin samples, which, unbeknownst to him at the time, were not medically necessary to amelioration of his leukemia. *Id.* at 481-82.

[104] *Id*.

[105] *Id.*

[106] *Id.* at 485. Interestingly, the court stated that one of the bases for declining to extend the theory of "conversion" to Moore's excised spleen and the cells derived from it was the anticipation that such a holding would hinder research. The opinion discusses the vast repositories of cell lines operated by the NIH and other institutions and opines that the transmission of cell lines, which "are routinely copied and distributed to other researchers for experimental purposes, " will "*surely be compromised if each cell sample becomes the potential subject matter of a lawsuit.*" *Id.* at 495 (emphasis added).

[107] Moore v. Regents of the Univ. of Cal., 793 P.2d 479, 487-88 (Cal. 1990). Further, the court found that Moore's cells did not carry a genetic code or other mark found only in his body, and was therefore insufficiently unique to establish a property right in favor of Moore. *Id.*

[108] *Id*. *See also* REBECCA SKLOOT, THE IMMORTAL LIFE OF HENRIETTA LACKS 65, 90 (2010) (detailing the un-consented to treatments and research on Henrietta Lacks, including removal of tissues that became the basis for the widely-used HeLa cell line); Denise Grady, *A Lasting Gift to Medicine That Wasn't Really a Gift*, N.Y. TIMES (Feb. 2, 2010), http://www.nytimes.com/2010/02/02/health/02seco.html?_r=0 (archived at http://perma.cc/EV53-BZ8B).

[109] *See* Walz, *supra* note 35, at 137.

uals with dispositional authority over embryos evinced no intention of reclaiming their biological materials, they abandoned these materials and relinquished their rights to control these materials. As previously noted, however, abandonment arguments regarding reproductive materials have not been successful in the few cases addressing the issue.[110]

VI. OTHER RELEVANT PENNSYLVANIA LAW ON EMBRYOS AND FETUSES

Other areas of state law may bear on the examination of whether an embryo at any stage of development may be considered a "person." Laws regarding abortion and wrongful death are especially relevant here.[111]

Pennsylvania's Abortion Statute[112] and its wrongful death statute[113] both use the term "unborn child," which is defined as an "individual organism of the species homo sapiens from fertilization until live birth."[114] The Abortion Statute further provides that "fertilization" is the "fusion of a human spermatozoon with a human ovum."[115] In the "Legislative Intent" section of the abortion statute, the Pennsylvania Legislature makes numerous statements in support of preserving the life of the unborn child, including that:

> In every relevant civil or criminal proceeding in which it is possible to do so without violating the Federal Constitution, the common and statutory law of Pennsylvania shall be construed so as to extend to the unborn the equal protection of the laws and to further the public policy of this Commonwealth encouraging childbirth over abortion.[116]

Somewhat inconsistently, however, the same statute requires IVF clinics to report the annual number of frozen embryos that are destroyed to the Pennsylvania Department of Health, implying that clinics may treat frozen embryos akin

---

[110] *See, e.g.*, York v. Jones, 717 F. Supp. 421, 427 (E.D. Va. 1989).

[111] Laws pertaining to abortion differ significantly between states. *See* State Policies in Brief: An Overview of Abortion Laws, GUTTMACHER INST. (Apr. 1, 2015), http://www.guttmacher.org/statecenter/spibs/spib_OAL.pdf (archived at http://perma.cc/V8BX-9EQ9) (surveying different state laws related to abortions). There is also a good deal of federal case law regarding abortion. *See, e.g.*, Stenberg v. Carhart, 530 U.S. 914 (2000); Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833 (1992); Webster v. Reproductive Health Servs., 492 U.S. 490 (1989); Roe v. Wade, 410 U.S. 113 (1973). An in-depth exploration of statutes and cases pertaining to abortion are beyond the scope of this Article.

[112] Pennsylvania Abortion Control Act of 1982, as amended in 1988 and 1989, 18 PA. CONS. STAT. ANN. §§ 3201-20 (West 2000). Notably, Pennsylvania's abortion statute, as originally passed, was upheld in part and struck down in part by the U.S. Supreme Court in *Planned Parenthood of Southeastern Pennsylvania v. Casey*, 505 U.S. 833 (1992).

[113] *Id.* §§ 2601-09.

[114] *Id.* § 3203 (abortion); §2602 (wrongful death); *see also* § 3216 (providing stringent requirements for use and procurement of fetal tissue for use in research experiments).

[115] *Id.* § 3203.

[116] *Id.* § 3202(c).

to property, or at least other excised tissue, and destroy them so long as certain conditions are met (*e.g.*, abandonment and unpaid cryopreservation fees).[117]

Pennsylvania's Crimes Against the Unborn Child Act[118] provides that an individual may be convicted of homicide or voluntary manslaughter if he or she intentionally, knowingly, recklessly, or negligently causes the death of an "unborn child."[119] The Act's definition of "unborn child" refers back to Pennsylvania's abortion statute, thereby allowing a finding of wrongful death of an "unborn child" as of the moment of fertilization.[120]

Imposing homicide and manslaughter penalties for crimes against the product of fertilization arguably implies that the Legislature considers this product to be more like a person than like property. In fact, part of the *Davis* court's rationale for finding that an embryo was closer to property was that Tennessee's wrongful death statute did not provide a cause of action for wrongful death of a fetus, a stage further developed than an embryo.[121]

In Illinois, a jurisdiction with a similarly worded wrongful death statute, a couple sued an IVF clinic for the wrongful death of nine embryos that were to be frozen and stored for later implantation in the woman's uterus but were instead destroyed. The court in *Miller v. American Infertility Group* first held that an embryo is a human being within the meaning of the Illinois Wrongful Death Act.[122] Although the Act did not define the term "human being," the court reasoned that in order to be consistent with Illinois' abortion law, which stated that life begins at conception, the definition of a "human being" in the wrongful death context should be parallel.[123] In finding for the couple, the court stated that "[p]hilosophers and theologians may debate, but there is no doubt in the mind of the Illinois Legislature when life begins. It begins at conception."[124]

While legislation allowing wrongful death claims against individuals who destroy embryos may support the argument that a legislature views embryos as more akin to persons than property, others have argued that it is not incon-

---

[117] 18 PA. CONS. STAT. ANN. §§ 3203 (West 2000). In fact, tissue banking laws in other jurisdictions rarely, if ever, make mention of whether or how clinics may thaw or otherwise destroy clinically-excess frozen embryos. *See, e.g.*, N.Y. COMP. CODES R. & REGS. tit. 10, § 52 (2013) (comprehensively regulating many aspects of tissue banking, including procuring informed consent from donors and storing of biological materials, but omitting rules regarding destruction).

[118] 18 PA. CONS. STAT. ANN. § 2601 (West 1998). *See also* Commonwealth v. Bullock, 868 A.2d 516 (Pa. Super. Ct. 2005), *aff'd*, 913 A.2d 207 (Pa. 2006) (upholding the validity of the statute and its imposition of criminal penalties).

[119] 18 PA. CONS. STAT. ANN. §§ 2603-05 (West 1998).

[120] *Id.* §§ 2602, 3203.

[121] Davis v. Davis, 842 S.W.2d 588, 594 (Tenn. 1992).

[122] Miller v. Am. Infertility Grp., No. 02L7394, 2005 WL 6298935, at *6 (Ill. Cir. Feb. 4, 2005).

[123] *Id.* at *4-6.

[124] *Id*. at *6. *See also* Walz, *supra* note 35, at 130-31 (discussing the *Miller* case).

sistent for a legislature to impose murder-like penalties for crimes against embryos or fetuses while nevertheless taking the overall viewpoint that fetuses are not "persons."[125] Such commentators have asserted that these increased penalties can be attributed to the intent of a legislature for additional deterrent effect rather than an attempt to evince a belief that the fetus is entitled to all rights accorded to fully-born persons.[126]

In Pennsylvania, however, the Legislature has arguably evinced an intent (however inconsistent) to provide protections to embryos that it would not apply if it considered embryos akin to property.[127]

VII. ANALYSIS

As case law in the context of custody of frozen embryos upon divorce and abandoned non-reproductive biological material shows, Pennsylvania has some legal basis for asserting that unclaimed frozen embryos may be treated as property and thus subject to Pennsylvania's Abandoned Property Statute. We believe, however, that despite the good intentions of the Pennsylvania Comptroller, it is ethically tenuous to officially characterize frozen pre-embryos as "property" within the meaning of the Abandoned Property Statute. Moreover, even if Pennsylvania construed the Statute to include unclaimed frozen embryos, the proposition that such embryos may be donated to stem cell research, absent any evidence of consent from the original donors, raises distinct ethical questions.

Without legislation or some other binding authority, the current legal structure allows – and, practically forces – courts to make decisions regarding embryo characterization and disposition on a case-by-case basis, according embryos rights that courts deem proper and providing parties who "own" the embryos certain liberties. While some commentators argue that allowing courts to reconcile arguably-conflicting bodies of law on a case-by-case basis is the ideal way to proceed in light of conflicting values and circumstances,[128] this approach leads to an inconsistent patchwork of applicable rules and dispositions, and provides little guidance for IVF patients, their families, fertility clinics, and governmental entities on how best to proceed.

Nevertheless, as the law generally allows the destruction of vast numbers of clinically-excess embryos at the clinic level, we are mindful of the many arguments asserting that it would be more ethically justifiable to provide these embryos for the benefit of society and those suffering from grave conditions that may be ameliorated by advances in stem cell science.

Given the magnitude, uncertainty, and importance of the issue of disposition

---

[125] Juliana Vines Crist, *The Myth of Fetal Personhood: Reconciling* Roe *and Fetal Homicide Laws*, 60 CASE W. RES. L. REV. 851, 862-64 (2010).

[126] *Id.*

[127] *See supra* notes 112-17 and accompanying text (describing Pennsylvania's abortion statute and wrongful death statute).

[128] Zizzi, *supra* note 6, at 395-96.

of unclaimed frozen embryos, we strongly advocate that state legislatures across the United States address this issue directly, and that fertility clinics employ clear and understandable language in their consent forms and conduct conversations that allow progenitors to make informed decisions about research donations and alternative uses, including donation to others wishing to conceive or embryo adoption.

A. Should Pennsylvania's Comptroller Treat Unclaimed Frozen Embryos as "Abandoned Property"?

Deciding to classify an embryo as property does not necessarily equate it to other forms of tangible property or physical possessions.[129] Rather, a property designation may simply be a means to indicate that specified others may have the right to make decisions about its disposition or to allow for a curtailing of the dispositions deemed acceptable.[130] Ethicists, philosophers, and judges alike have considered the numerous and divergent views on when life begins and at what point it is appropriate to bestow certain rights upon an embryo – or, dictate actions that may or may not be taken towards an embryo.[131] It does not foreclose the possibility that embryos also deserve special respect, although it may mean their disposition may be governed by contract.

For purposes of public policy, explicitly defining a frozen embryo simply as personal property of the gamete donors may be offensive, as such a characterization arguably undermines the standing of the embryo[132] and human dignity.[133] This consideration may be particularly relevant in Pennsylvania, where the Legislature has demonstrated in other legal contexts its desire to treat all post-fertilization entities with a different regard than property.

---

[129] John A. Robertson, *Reproductive Technology and Reproductive Rights: In the Beginning: The Legal Status of Early Embryos*. 76 VA. L. REV. 437, 455 & n.48 (1990).

[130] *Id*.

[131] Roe v. Wade, 410 U.S. 113, 160-61 (1973). *See generally* Courtney S. Campbell, *Research on Human Tissue: Religious Perspectives*, *in* 2 RESEARCH INVOLVING HUMAN BIOLOGICAL MATERIALS: ETHICAL ISSUES AND POLICY GUIDANCE C-1 (2000). *See also* CONGREGATION FOR THE DOCTRINE OF THE FAITH, *Instruction* Dignitas Personae *on Certain Bioethical Questions,* HOLY SEE 11, http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_20081208_dignitas-personae_en.html (archived at http://perma.cc/SP7M-CGZM). In this statement, the Vatican asserts that "it needs to be recognized that the thousands of abandoned embryos represent a *situation of injustice which in fact cannot be resolved.* Therefore John Paul II made an 'appeal to the conscience of the world's scientific authorities and in particular to doctors, that the production of human embryos be halted, taking into account that there seems to be no morally licit solution regarding the human destiny of the thousands and thousands of "frozen" embryos which are and remain the subjects of essential rights and should therefore be protected by law as human persons.'" *Id.*

[132] *See* Zizzi, *supra* note 6, at 398 .

[133] *See generally* Jonathan Herring & P.L. Chau, *Interconnected, Inhabited and Insecure: Why Bodies Should Not be Property*, 10 J. L. MED. & ETHICS 1136 (2013).

Finally, even if it is ethically appropriate to treat embryos as akin to property in certain contexts (for example, in custody disputes during divorces), it is nevertheless potentially problematic to subject them to the structure of the Abandoned Property statute.[134] As noted, this statute vests full discretionary authority in the Treasurer to do as he or she wishes with property subject to the Commonwealth's control.[135] While donating the embryos that would otherwise be subject to destruction to stem cell research may be a laudable goal, allowing the Treasurer the authority to make unfettered decisions about disposition of biological materials may be ill-advised as a matter of public policy.

Setting policy in a pluralistic society regarding whether an embryo is characterized as person, property, or another category arguably should not turn solely on ethical, legal, or even scientific criteria. "[S]cience alone cannot resolve the question of moral status. . . . The position one takes on the nature of personhood determines the account of individuation that . . . determines how one interprets the facts of embryology."[136]

Without further statutory or case law, however, fertility clinics and other entities are still left in the untenable and unfortunate position of deciding the disposition (including destruction) of embryos en masse when progenitors no longer pay their storage fees, or when clinics are unable to locate progenitors to assess their dispositional wishes. However, while the Abandoned Property mechanism would provide some guidance and insulation from liability to clinics,[137] it is arguably not the ideal solution.[138] Direction is needed from state legislatures, or in the least, rules or standards from a court of competent jurisdiction.

B. Ethical Challenges to Construing Clinically-Excess Embryos as Abandoned Property and Donating them to Stem Cell Research

1. Lack of Proof of Initial Informed Consent to Research

Even if a frozen pre-implantation embryo could be considered abandoned property and the Comptroller utilized its discretion to donate the embryo to stem cell research rather than to discard it or pursue another disposition, several issues arise as to whether frozen pre-implantation embryos could ethically be donated to and used in stem cell research. First, there is the issue of in-

---

[134] *But see* Thomas, *supra* note 7, at 308-13 (arguing that Texas law of abandoned personal property should be applied to frozen embryos).

[135] 72 PA. CONS. STAT. ANN. § 1301.17 (West 1995 & Supp. 2013).

[136] George Khushf, *Embryo Research:The Ethical Geography of the Debate*, 22 J. MED. & PHIL. 495, 509 (1997). *See also Roe*, 410 U.S. at 161 ("Substantial problems for precise definition of this view are posed, however, by new embryological data that purport to indicate that conception is a 'process' over time, rather than an event, and by new medical techniques . . . .").

[137] 72 PA. CONS. STAT. ANN. § 1301.14.

[138] *Id*. § 1301.16.

formed consent. Derivation of stem cells from frozen embryos may arguably be human subjects research under federal law, particularly where identifiers or other coding has not been used to protect the identity of the gamete donors.[139] If so, the donors would have to provide fully informed, voluntary consent to participation under federal regulation if the research was controlled by federal law.[140] In addition to federal law regarding human subjects research, some states require a specific type of informed consent from parents.

Moreover, commentators debate the ethical propriety of institutions or researchers using embryos for research without any indication that the progenitors consented to research usage – or that the possibility of research was even contemplated.[141] In the situation confronting Pennsylvania, there are no original consent forms or any indication of the progenitors' dispositional wishes, and the progenitors might have moral or ethical objections to stem cell re-

---

[139] *See* 45 C.F.R. 46 (2014). Harvesting of gametes directly from subjects for the purposes of stem cell research undoubtedly falls within the ambit of 45 C.F.R. 46. In addition, clinically-excess biological materials, such as cells derived from human embryos, may also be subject to federal regulation to the extent that they are individually identifiable, *i.e.,* when they can be linked to specific living individuals by the investigators either directly or indirectly through coding systems. *See* OFFICE FOR HUMAN RESEARCH PROTECTIONS, GUIDANCE FOR INVESTIGATORS AND INSTITUTIONAL REVIEW BOARDS REGARDING RESEARCH INVOLVING HUMAN EMBRYONIC STEM CELLS, GERM CELLS AND STEM CELL-DERIVED TEST ARTICLES (2002), *available at* http://www.hhs.gov/ohrp/policy/stemcell.pdf (archived at http://www.hhs.gov/ohrp/policy/stemcell.pdf). *See also* HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., FINAL REPORT OF THE NATIONAL ACADEMIES' HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMMITTEE AND 2010 AMENDMENTS TO THE NATIONAL ACADEMIES' GUIDELINES FOR HUMAN EMBRYONIC STEM CELL RESEARCH, 3.1 (2010) ("An IRB, as described in federal regulations at 45 CFR 46.107, should review all new procurement of all gametes, morulae, blastocysts, or somatic cells for the purpose of generating new hES or hPS cell lines. This includes the procurement of blastocysts and/or morulae in excess of clinical need from infertility clinics . . . .").

[140] 45 C.F.R. §§ 46.111(a) (4), 46.116(a-b) (2014). To the extent that this could be considered human subjects research, another collateral issue arises if the gamete donors wish to terminate their cell's participation in stem cell research. Generally, in research involving human subjects, the research protocol *must* allow for a subject-participant to withdraw from the project at any time. *See id.* § 46. However, in comparing the situation to *Moore v. Board of Regents*, *supra* Part V, courts might not allow such a withdrawal on the theory of "abandonment" of such cells. Assuming that one intended to abandon a spleen once it was removed from their body (as was the situation in *Moore*) has different and fewer ethical implications than abandoning an embryo. Here, the law of property abandonment may conflict with the laws regarding human subjects research.

[141] N.Y. STATE DEP'T OF HEALTH, EXECUTIVE SUMMARY OF ASSISTED REPRODUCTIVE TECHNOLOGIES: ANALYSIS AND RECOMMENDATIONS FOR PUBLIC POLICY, *available at* http://www.health.ny.gov/regulations/task_force/reports_publications/execsum.htm (archived at http://perma.cc/CSJ9-MGQ3) ("No embryo may be . . . used for research without the consent of the individuals with decision-making authority over the embryo . . . When two people have joint decision-making authority over a frozen embryo, one person's objection to . . . using it for research should take precedence over the other person's consent.").

search.

Some may argue that donors' and progenitors' potential moral objections should not be given any weight since the progenitors abandoned their embryos, potentially with the knowledge that the embryos would eventually be destroyed. Yet offending the morals of the donors and progenitors is not the only issue with unilaterally providing the biological materials to research. Stem cell research that does not adhere to commonly-accepted standards for de-identifying materials and information could implicate privacy and other rights that progenitors may not have anticipated. Recent science has demonstrated that, even when identifiers are stripped from a biological sample, it may nevertheless be possible to trace samples back to the original donors based on the DNA itself and other information.[142] If generally-accepted standards were not followed, this could lead to violations of privacy as well as potential discrimination, genetic or otherwise.[143]

According to two highly-regarded consensus guidelines for the ethical conduct of stem cell research, one promulgated by the National Academy of Sciences ("NAS")[144] and the other by the International Society for Stem Cell Research ("ISSCR"),[145] all gamete donors should provide informed consent to research.[146] Neither set of Guidelines allows materials to be procured by would-be-researchers unless consent for research usage was explicitly provided at some previous juncture.

The potential donation to research contemplated by Pennsylvania may also

---

[142] *See generally* John Bohannon, *Genealogy Databases Enable Naming of Anonymous DNA Donors*, 339 SCIENCE 262 (2013); Melissa Gymrek et al., *Identifying Personal Genomes by Surname Inference*, 339 SCIENCE 321-24 (2013).

[143] Despite the myriad of laws, regulations and guidelines in place to protect people from involuntary participation in research, the issue still remains a highly visible and controversial. SKLOOT, *supra* note 108. *See* Grady, *supra* note 108.

[144] HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139.

[145] INT'L SOC'Y FOR STEM CELL RESEARCH, GUIDELINES FOR THE CONDUCT OF HUMAN EMBRYONIC STEM CELL RESEARCH (2006), *available at* http://www.isscr.org/docs/default-source/hesc-guidelines/isscrhescguidelines2006.pdf (archived at http://perma.cc/C863-G93A).

[146] NAS mandates that consent to research be garnered at the time of transfer to the research institution, regardless of whether initial consent for research purposes was provided. HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139, at 3.2 ("Consent for donation should be obtained from each donor at the time of donation. Even people who have given prior indication of their intent to donate to research any blastocysts and/or morulae that remain after clinical care should nonetheless give informed consent at the time of donation."). ISSCR's Guidelines soften that requirement slightly where obtaining re-consent is "prohibitively difficult." INT'L SOC'Y FOR STEM CELL RESEARCH, *supra* note 145, at 11.2 ("Consent for donation of materials for research should be obtained at the time of proposed transfer of materials to the research team. Only after a rigorous review by a SCRO mechanism or body can permission be granted to use materials for which prior consent exists but for which re-consent is prohibitively difficult.").

be barred if the research was federally funded, as the NIH Guidelines also contain stringent requirements for the content of donors' informed consent with respect to human embryonic stem cells ("hESCs"). The NIH Guidelines require, *inter alia*, that the donors were informed (1) about "what would happen to the embryos in the derivation of hESCs for research," (2) "that the donation was made without any restriction or direction regarding the individual(s) who may receive medical benefit from the use of the hESCs, such as who may be the recipients of cell transplants, and (3) "whether information that could identify the donor(s) would be available to researchers."[147]

2. Ethical Appropriateness of Garnering Re-Consent Where Initial Consent May Be Insufficient

Even if the individuals undergoing IVF provided initial consent to research at the start of their reproductive treatments, the timing and nature of an initial consent could raise ethical issues when it is relied on as the sole consent to donate to stem cell research. A general consent to research at the beginning of a reproductive process would not likely include specific information regarding the nature and type of research that would eventually occur if the excess biological materials were donated to research. Individuals also may not be fully aware of the consequences of their decision to participate in the specific research project or of the implications of allowing derivation of embryonic stem cell lines from excess materials, including possible access to genetic information. The individuals also likely would not be apprised of information generated after their initial consent, including possible advances in research techniques or additional alternatives to donation. It may be ideal to obtain re-consent, particularly, consent that is more specific to the research study and the potential risks and benefits of participating in the research, closer to the time of transfer to the research facility.

Guidelines from both NAS and ISSCR advise procuring re-consent at the time that the materials are transferred to research, even where informed consent to research was provided at the time the biological materials were first harvested.[148] Failure to obtain consent at the time of transfer of the biological materials could also violate the NIH Guidelines, which require that:

---

[147] NAT'L INSTS. OF HEALTH, GUIDELINES ON HUMAN STEM CELL RESEARCH, § II.A.3.e (2009) *available at* http://stemcells.nih.gov/policy/Pages/2009guidelines.aspx (archived at http://perma.cc/XQ46-U4A8).

[148] *See supra* notes 144-45. Interestingly, in the case of third party gamete donations to IVF, NAS also loosens its restrictions for re-consent at the time of transfer of the biological materials to research. HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139, at 3.3 ("When donor gametes have been used in the IVF process, resulting blastocysts and/or morulae may not be used for research without consent of all gamete donors. Written agreement at the time of gamete donation that one potential use of the blastocysts and/or morulae is embryo research will constitute sufficient consent.").

> At the time of donation, consent for that donation should have been obtained from the individual(s) who had sought reproductive treatment. That is, even if potential donor(s) had given prior indication of their intent to donate to research any embryos that remained after reproductive treatment, consent for the donation for research purposes should have been given at the time of the donation."[149]

3. Consent from Third-Party Gamete Donors

When considering the specific situation of donating clinically-excess embryos to research, determining which parties should provide consent is a contentious issue. In other research contexts, only individuals who may become research participants or may be identifiable because of the research need provide informed consent. In contrast, procuring an embryonic stem cell line may implicate multiple parties' autonomy rights, including third-party donors of gametes who may have intended those gametes be used only for reproductive purposes. Ideally, consent to research usage should be procured not only from the parties who have dispositional authority over the embryos, but also from the individuals whose biological materials comprise the embryos.[150]

In Pennsylvania's situation, no information is available surrounding any part of the consent process, including any consents by third-party gamete donors. Thus, ensuring adherence to many of key ethical guidelines may not be possible without conscious effort by the involved parties without additional action on the Legislature or Comptroller's part.[151]

---

[149] NAT'L INSTS. OF HEALTH, *supra* note 147, at § II.A.3.d.ii. There is also a clear requirement that the consent documentation itself be available – a requirement that could not be met in this instance. *Id.* § II.A. ("Applicant institutions proposing research . . . may establish eligibility for NIH funding by submitting an assurance of compliance . . . along with supporting information demonstrating compliance for administrative review by the NIH . . . [including] documentation provided, such as consent forms, written policies, or other documentation . . . .).

[150] Both NAS and ISSCR require that informed consent to research usage be provided not only by those who currently have custody of the embryo, but also from all potential gamete donors. INT'L SOC'Y FOR STEM CELL RESEARCH, *supra* note 145, § 11.2 ("Consent must be obtained from all gamete donors for use of embryos in research."); HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139, § 3.3 ("When donor gametes have been used in the IVF process, resulting blastocysts and/or morulae may not be used for research without consent of all gamete donors."). *See also* NAT'L INSTS. OF HEALTH, *supra* note 147.

[151] *See, e.g.*, INT'L SOC'Y FOR STEM CELL RESEARCH, *supra* note 145, § 11.1 ("Review at all levels must ensure that vulnerable populations are not exploited due to their dependent status or their compromised ability to offer fully voluntary consent, and that consent is voluntary and informed, and that there are no undue inducements or other undue influences for the provision of human materials."); *id*. § 11.3 (setting forth particular information that must be disclosed requiring consent..

4. Issues For Institutions Accepting Clinically-Excess Embryos

In addition to the ethical issues previously identified, Pennsylvania could face a practical hurdle of finding an institution willing to accept the excess embryos as proposed. It is unlikely that a reputable institution would accept the embryos, to the extent that adherence to the laws and guidelines cited above, as well as other stringent procurement rules,[152] could not be assured.[153] Were the Treasurer to find and donate to an institution willing to accept these embryos that does not fulfill the necessary pre-requisites,[154] the Treasurer arguably would be setting a poor public policy precedent.

5. Summary of Analysis

Although there may be legal arguments to support a claim that unclaimed frozen embryos may be treated as abandoned property, there is no evidence that the Pennsylvania legislature intended the Abandoned Property statute to include these materials.[155] In fact, other Pennsylvania law suggests the legislature might reach the opposite conclusion if confronted directly with the issue.[156] The majority of courts that have addressed similar issues would likely find it inappropriate to characterize embryos as mere chattel. This conclusion may lead to vast numbers of unclaimed frozen pre-embryos simply being thawed and destroyed when they could be beneficially donated to the promising field of stem cell research.[157] Absent any additional laws or ethical guide-

---

[152] *See* 45 C.F.R. § 46.107 (2014); HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139, § 3.0; INT'L SOC'Y FOR STEM CELL RESEARCH, *supra* note 145, § 11.

[153] *See* HUMAN EMBRYONIC STEM CELL RESEARCH ADVISORY COMM., *supra* note 139, § 1.4 ("All scientific investigators and their institutions, regardless of their field, bear the ultimate responsibility for ensuring that they conduct themselves in accordance with professional standards and with integrity. In particular, people whose research involves [human embryonic stem] cells should work closely with oversight bodies, demonstrate respect for the autonomy and privacy of those who donate gametes, morulae, blastocysts, or somatic cells and be sensitive to public concerns about research that involves human embryos.").

[154] Nevertheless, it is unclear whether and to what extent a researcher or institution without knowledge of the circumstances surrounding the donation of the embryo would face liability. For example, the *Moore* court decided against extending liability to downstream researchers for several policy reasons, one of which included its desire to "not threaten with disabling civil liability innocent parties who are *engaged in socially useful activities*, such as researchers who have *no reason to believe that use of a particular cell sample*" is against the law. *See* Moore v. Regents of the Univ. of Cal., 793 P.2d 479 (Cal. 1990) (emphasis added).

[155] *See* Reber v. Reiss, 42 A.3d 1131 (Pa. Super. 2012).

[156] Arguably, the *Reiss* case also demonstrates that Pennsylvania courts are willing to place a special emphasis on frozen pre-embryos, even when it leads to outcomes that contradict those reached in other jurisdictions. Notably, however, this case did not turn on a finding that an embryo was akin to a person. *See id.* at 1131.

[157] The Ethics Comm. of the Am. Soc'y for Reproductive Medicine, *Disposition of Abandoned Embryos*, 82 FERTILITY & STERILITY S253 (2004) (concluding that, after five

lines sanctioning the research donation, however, we are left in an ethical quagmire.

VIII..PROPOSALS FOR MOVING FORWARD IN A LEGALLY-CONSISTENT AND ETHICALLY-APPROPRIATE MANNER

Pennsylvania, like many other states, is confronting the question of how to proceed in a legally consistent and ethically appropriate manner with the vast number of unclaimed, clinically-excess frozen embryos. The absence of legislation or common law speaking directly to the issue leaves the Commonwealth in an uncomfortable predicament if it desires to go forward with donating the embryos to research, regardless of the potential impediments and ethical issues previously addressed. As such, the Comptroller may choose to seek a declaratory judgment from the appropriate court of law as to, (1) whether embryos are subject to its abandoned property statute, and, if so (2) whether the Treasurer should be permitted under other laws and guidelines to donate the embryos to stem cell research rather than take another course of action, such as thawing. Despite this solution's comparative ease, seeking a decision by a court instead of a vote on a proposed legislative rule or a public referendum may not be the ideal way to set public policy on this sensitive matter.

More broadly, states across the United States should address the issue directly, by the legislative process, public referendum or otherwise, so that policy reflects the viewpoints of the populous.[158] In so doing, states could refine their views on the concept of life, to the extent that it is not otherwise constrained by constitutional and other law, and (1) be consistent across laws that concern this issue (*e.g.,* abortion; homicide; research) or (2) provide explicit rationales as to why laws may appear to be inconsistent (*e.g.*, the legislature believes that there are sufficient deterrent effects of allowing a prosecution for wrongful death of a fetus in order to protect the life and safety of pregnant women, but does not believe that a pre-implantation embryo should be accorded all of the rights of a person).[159] Setting a uniform and transparent public policy is arguably preferable to courts making *ad hoc* decisions without the benefit of laws or even legislative intent on the matter. A legislative process or public referendum would have the added benefit of triggering the long overdue debate on the status of abandoned reproductive materials.

---

years without contact by progenitors and unsuccessful attempts at reaching progenitors, a fertility program may "reasonably determine . . . that embryos have been abandoned . . . [and] may dispose of the embryos by removal from storage and thawing without transfer. In no case without prior consent, should embryos deemed abandoned . . . be used in research").

[158] Many have argued that this issue, which implicates both family law and the practice of medicine, should be decided on a state level rather than by the federal government because of federalism concerns. *See generally* Daar, *supra* note 43 (arguing that federalism concerns mediate in favor of state regulation over embryo transfers and other practice-of-medicine issues in the IVF context).

[159] Crist, *supra* note 125, at 862-64 (2010).