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The Sperminator as a Public Nuisance: Redressing Wrongful Birth and Life Claims in New Ways (A.K.A. New Tricks for Old Torts)

Barbara Pfeffer Billauer

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THE SPERMINATOR AS A PUBLIC NUISANCE: REDRESSING WRONGFUL LIFE AND BIRTH CLAIMS IN NEW WAYS (A.K.A. NEW TRICKS FOR OLD TORTS)

Barbara Pfeffer Billauer, J.D., M.A., Ph.D.*

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^{*} About the author: Dr. Billauer holds academic appointments at the University of Porto, Portugal, where she is a Professor in the International Program on Bioethics, and the Institute of World Politics in Washington, DC, where she is a research Professor of Scientific Statecraft. She also sits on the UNESCO committee currently compiling a Casebook on Bioethics and has edited Prof. Amnon Carmi's Casebook on Bioethics for Judges. Prior to transitioning to academia, Dr. Billauer practiced medical malpractice, toxic tort and products liability law. The author gratefully acknowledges the reviews and comments of Professors David Heyd, Yaniv Heled, Pamela Laufer-Ukeles and Norman Bailey but bears full responsibility for the content of this article. The author also acknowledges with gratitude the assistance furnished at the Laniado IVF facility in Netanya, Israel, and by its Director, Dr. Amir Weintraub and Laboratory Supervisor, Diana Stein, who generously gave of their time and expertise to explain various intricacies of the procedure.

THE SPERMINATOR AS A PUBLIC NUISANCE: REDRESSING WRONGFUL LIFE AND BIRTH CLAIMS IN NEW WAYS (A.K.A. NEW TRICKS FOR OLD TORTS)

Barbara Pfeffer Billauer J.D., M.A., Ph.D.

Faced with an increase in sperm bank "accidents," the lacuna of suitable legal redress for sperm bank imposed harms begs to be filled. This article demonstrates for the first time that some sperm bank generated harms transcend violating the personal goals of the parent and the rights of the child. In addition, sperm bank errors infringe on societal rights by, for example, saddling it with health costs for children born with genetic diseases. Moreover, introducing inherited diseases into the gene pool in large numbers sets the stage for a public health crisis. To address these harms, I propose repurposing an old cause of action, the private claim of a public nuisance. This harm-driven approach expands the class of would-be plaintiffs, broadens the spectrum of allowable claims, and bypasses restrictions imposed by traditional negligence law. Insofar as punitive damages are allowed, the claim has the potential to act as a deterrent of a host of sub-par sperm bank practices. I also discuss the implications of holding the sperm bank to fiduciary standards.

"Science has once again—as it always does—outstripped the law... the direction from the higher courts and the Legislature is clear—perhaps a half-step behind today's science, but clear—and until it is changed, it controls the outcome of this case."¹

I. INTRODUCTION

Sperm banking has become a business, an international business, and a very lucrative one at that. Driven by commercialization and profit margins,² and without the moral safeguards of the Hippocratic Oath that govern the practice of medicine,³ innate moral or ethical constraints have all but dis-

^{1.} Collins v. Xytex Corp., No. 2015CV259033, 2015 WL 6387328, at *3 (Ga. Super. Ct. Oct. 20, 2015) (opinion written by Judge Robert McBurney).

^{2.} NAOMI CAHN, TEST TUBE FAMILIES: WHY THE FERTILITY MARKET NEEDS LEGAL REGULATION 149 (2009).

^{3.} See Pamela Laufer-Ukeles, Reproductive Choices and Informed Consent: Fetal Interests, Women's Identity, and Relational Autonomy, 37 AM. J. L. & MED. 567, 591 (2011); see also Caroline Forell and Ana Sortun, The Tort of Betrayal of Trust, 42 MICH. J.L. REFORM 557, 586 (2009).

solved. The results are mixed: millions of babies born who otherwise would not have been, but with serious harm to some of them.

Marketed via commercial carriers, advertised in glossy catalogs that rival fashion and beauty magazines, freeze-dried and sold over the internet, the "easy-come" practices and products of the sperm bank industry are the breeding ground for abuses. Baby-making clinics (in-vitro fertilization, or IVF, facilities) that once used standard and universally approved techniques are "always looking for a competitive advantage,"⁴ sometimes using ethically questionable technologies⁵ such as mitochondrial DNA transfers sanctioned in Britain.⁶

Abuses lead to increased chances of consanguinity, destroyed gametes, frustrated chances of reproduction and cases of babies "switched before birth" (also known as "scrambled eggs"), with interracial babies being born to single-race couples.⁷ But it gets worse: what if—horrifically enough—and unbeknownst to the mother who took great care in sperm selection, the sperm donor turns out to be—a criminal? Or, more horrifically, what if the sperm supplier has an inheritable disease? And what if that disease is a psychosis?⁸ But it gets still worse: what if the sperm supplier has fathered a score or more children carrying genes for that illness? These are not hypotheticals created to whet the appetite of the reader. These are current problems—the subject of current lawsuits and the subject of this article.

The problems with Assisted Reproductive Technology gone-rogue are roundly acknowledged—as is the lack of viable legal redress.⁹ While Artificial Insemination by Donor (AID) has been available since the late 1700s,¹⁰

^{4.} Michael Cook, *Tandem IVF: Anything to Guarantee a Baby*, BIOEDGE (Aug. 26, 2017), https://www.bioedge.org/bioethics/anything-to-guarantee-a-baby/12404.

^{5.} Ariana Eunjung Cha, *This Fertility Doctor is Pushing the Boundaries of Human Reproduction, with Little Regulation*, WASH. POST (May 14, 2018), https://www.washingtonpost.com/national/health-science/this-fertility-doctor-is-pushing-the-boundaries-of-human-reproduction-with-little-regulation/2018/05/11/ea9105dc-1831-11e8-8b08-027a6ccb38eb story.html?utm term=.434bcf2ba38b.

^{6.} Ian Sample, *First UK Baby with DNA from Three People Could Be Born Next Year*, GUARDIAN (Dec. 15, 2016), https://www.theguardian.com/science/2016/dec/15/three-parent-embryos-regulator-gives-green-light-to-uk-clinics.

^{7.} See ACB v. Thomson Medical PTE Ltd, [2017] SGCA 20, (Ct. App. Sing., Mar. 22, 2017) Civil Appeal No. 17 of 2015.

^{8.} See Collins v. Xytex Corp., No. 2015CV259033, 2015 WL 6387328, at *1 (Ga. Super. Ct. Oct. 20, 2015).

^{9.} Andrea Preisler, Assisted Reproductive Technology: The Dangers of an Unregulated Market and the Need for Reform, 15 DEPAUL J. HEALTH CARE L. 213, 213 (2013) ("[L]awmakers have been slow to address [advances in assisted reproductive technology,]... [which] has left a gaping hole for a booming, unregulated market fraught with fraud and abuse... [and] a lawless free-for-all where the most exploitive providers reign.").

^{10.} DOUGLAS J. CUSINE, NEW REPRODUCTIVE TECHNOLOGIES: A LEGAL PERSPECTIVE 12 (1988).

the number of lawsuits (as opposed to errors) is unusually small—in no small measure due to the societal pressure to keep such procedures secret, or because problems go undetected. This results in legal confusion, an alarming lack of precedent, and a dearth of effective legal remedies.

"Wrongful life,"¹¹ the relevant tort with the "teeth," might deter negligence and encourage safer practice if it weren't generally rejected as abhorrent to judicial sentiment. Added to the policy rationale for its rejection¹² is concern that wrongful life/birth claims validate pejoration of genetically challenged or interracial children.¹³ In the context of IVF, a similar concern exists that children conceived via IVF might be seen as "lesser" than the children conceived without technology. Sperm bank companies take advantage of these attitudes and the current judicial climate, hiding under cover of likely dismissal of lawsuits—only to run to settle the most egregious cases where there is even a hint the claims may survive.¹⁴ Most victims, therefore, remain uncompensated—including children suffering genetic diseases¹⁵—and society is left to pick up the tab as clear legal solutions to reproductive wrongs go wanting.¹⁶

Others have come before me to joust with problems presented by reproductive technologies.¹⁷ However, their proposed solutions have yet to gain traction.¹⁸ Some say only increased regulation will address the problem.¹⁹ In truth, some regulations do exist. But regulations are weak, uneven, and almost impossible to enforce. Indeed, increased regulation, although

19. See, e.g., CAHN, supra note 2.

^{11.} The confusion between "wrongful life" and "wrongful birth" is rampant. Traditionally, wrongful life is the child's claim for being born, and wrongful birth is the parents' claim for raising that child. However, courts routinely mangle the terms. *See infra* notes 125–129 and accompanying text. Thus, the "labels [of wrongful life and wrongful birth] are not instructive." *See* Viccaro v. Milunsky, 551 N.E. 2d 8, 9 n.3 (Mass. 1990). *See also* Barbara Pfeffer Billauer, *Re-Birthing Wrongful Birth Claims in the Age of IVF and Abortion Reforms*, (September 19, 2019) (manuscript at 3–4) (Available at https://ssrn.com/abstract=3456822), 50 STETSON LAW REV. (forthcoming).

^{12.} Barbara Pfeffer Billauer, *Wrongful Life in the Age of Crispr-Cas*, 142 PENN ST. L. REV. (forthcoming Winter 2020).

^{13.} See Sagit Mor, The Dialectics of Wrongful Life and Wrongful Birth Claims in Israel: A Disability Critique, in 63 STUDIES IN LAW, POLITICS AND SOCIETY 113–146 (Austin Sarat ed., 2014).

^{14.} Rebecca Lindstrom, *Sperm Bank Settles Negligence Lawsuits*, 11 ALIVE, (Oct. 6, 2017), https://www.11alive.com/article/news/investigations/sperm-bank-settles-negligence-lawsuits/481397639.

^{15.} See Donovan v. Idant Laboratories, 625 F. Supp. 2d 256, 276 (E.D. Pa. 2009).

^{16.} Dov Fox, Reproductive Negligence, 117 COLUM. L. REV. 149 (2017).

^{17.} See Laufer-Ukeles, supra note 3.

^{18.} See Michele Goodwin, A View from the Cradle: Tort Law and Private Regulation of Assisted Reproduction, 59 EMORY L.J. 1039, 1043 (2010) (discussing these issues in the context of harms occasioned by parental irresponsibility, as opposed to third party malfeasance, discussed here).

perhaps helpful, would be protracted in coming and unavailable to deal with the immediacy of the problems. Further, beefed up Food and Drug Administration (FDA) regulations might trigger the pre-emption doctrine which could have a net-negative effect. Enforcement could be assigned to state public health agencies and hence would be uneven. Furthermore, evidence exists indicating that even where there is comprehensive regulation, such as in the UK, errors continue to proliferate.²⁰ And finally, the international nature of the problem means domestic regulation would be of little use to an American who gets her sperm abroad.

One legal scholar has gone as far as proposing a new cause of action called "reproductive negligence" as the only solution.²¹ This schema revolves around focusing on the negligent acts and its consequences: imposing a pregnancy, denying a pregnancy, or confounding the choice of child. One problem with this innovative approach is that it may not be as comprehensive as its author would have hoped or available as quickly as the severity of the problem warrants, and some harms would still seep through the cracks of its still-wet foundation. These include non-negligent errors which nonetheless generate serious injuries.

To address sperm bank generated damage, I take a novel approach which makes several contributions. Firstly, I propose reframing the problem.²² Rather than focusing on the causal act or its consequences to conceptualize injury (the traditional negligence approach), I propose focusing on the harm and assessing it according to its gravity and magnitude. This is a public-health oriented approach²³ which concentrates on prevention and deterrence rather than punitive or restorative justice. Second, I propose a novel use for an old tort, the private right of public nuisance,²⁴ to address the most serious (what I call the "greater") harms—i.e., those that in addition to harming an individual (parent or child) also cause harm at the population level (e.g., by affecting the population gene pool or generating custody disputes taxing the court system). This harm-driven approach also coheres with

^{20.} Billauer, Rebirthing, supra note 11.

^{21.} Fox, supra note 16.

^{22.} The framing of issues in medical/legal controversies often affects the outcome. See Barbara Pfeffer Billauer, *The Causal Conundrum: Examining Medical-Legal Disconnects from a Cultural Perspective or How the Law Swallowed the Epidemiologist and Grew Long Legs and a Tail*, 51 CREIGHTON L. REV. 319, 359 (2018).

^{23. &}quot;Public health surveillance is used . . . to quantify the magnitude of health problems . . . and appropriate and allocate prevention and care funds." Lisa M. Lee et al., *Ethical Justification for Conducting Public Health Surveillance without Patient Consent*, AM. J. PUB. HEALTH, Jan. 2012, at 38; *see also* S.B. Thacker, *Historical Development*, *in* PRINCIPLES AND PRACTICE OF PUBLIC HEALTH SURVEILLANCE 1, 1–17 (Lisa M. Lee et al. eds., 3d ed. 2010).

^{24.} Gregory C. Keating, *Nuisance as a Strict Liability Wrong*, 4 J. TORT L. 1, 4 (2012) (defining nuisance in terms of the resultant harm, rather than the conduct by a defendant which causes the harm).

nuisance theory.²⁵ Significantly, this stratagem enlarges the eligible class of plaintiffs, expands the scope of recovery, and allows for punitive damages, thereby producing a deterrent effect in addition to providing compensatory relief and therapeutic justice. Third, I identify twin practices of sperm banks which contribute to population-level threats and hence are especially ripe for regulation: unlimited sperm "donations" ²⁶ per supplier²⁷ coupled with anonymity of sperm suppliers,²⁸ which foster a lack of candor on applications. Exacerbated by failure to adequately screen/identify transmitters of heritable diseases,²⁹ these practices contribute to long-range population consequences when genetic diseases are passed on to multiple offspring. Identifying this hitherto unrecognized assault on the population gene pool is critically important in motivating society to address deficiencies in sperm bank management in a holistic fashion, using all the tools at its disposal: tort law, medical policy, and governmental regulation.

Setting the stage for using a nuisance claim under the theory that one who reaps a profit from an enterprise should bear the costs,³⁰ Part II of this article provides a historical and financial overview of the sperm bank industry. Here, I also present a panoply of sperm bank errors and identify past and current attempts to rectify these problems. Part III defines and delineates the

26. Most countries do limit the number of donations, but abuses abound. *See infra* pp. 19–22; *see also* K. Berg et al., *The Diversity of Regulation and Public Financing of IVF in Europe and Its Impact on Utilization*, 28 HUM. REPROD. 666 (2013).

27. Sperm "donation" is actually a misnomer, and I am grateful for the reminder given to me at the *Health Law Professor's Conference*, Cleveland, June 2018, where I presented an early version of the paper. Payment for sperm is delineated as compensation for time, although the financial incentive to the "sperm provider" is the driving force. I will use the term "sperm provider" or "sperm supplier" to more accurately reflect the state of affairs.

28. Fertility Treatment in Japan, a Corked Tube: No Country Resorts More to IVF—or Has Less Success, ECONOMIST, May 26, 2018, at 50–51; see also Tamar Lewin, Sperm Banks Accused of Losing Samples and Lying About Donors, N.Y. TIMES (July 21, 2016), http://www.nytimes.com/2016/07/22/us/sperm-banks-accused-of-losing-samples-and-lying-about-donors.html.

29. Sperm bank sloppiness (which involves mishandling of eggs) would be less likely to transmit genetic errors in ova by virtue of a) the lower number of egg donations per woman, and b) less availability of anonymity in egg donation. *See* Barry J. Maron, *Implications of Hypertrophic Cardiomyopathy Transmitted by Sperm Donation*, 302 JAMA 1681, 1681 (2009).

30. See Louise A. Halper, Public Nuisance and Public Plaintiffs: Rediscovering the Common Law (Part I), 16 ENVTL. L. REP. 10, 292 (1986); see also infra notes 383, 390, and accompanying text.

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^{25.} Highview N. Apartments v. City of Ramsey, 323 N.W.2d 65, 67 (Minn. 1982); Frank v. Envtl. Sanitation Mgmt., Inc., 687 S.W.2d 876, 880 (Mo. 1985). In fact, the word originally meant no more than "harm." See W. PAGE PROSSER ET AL., PROSSER AND KEETON ON TORTS 999 n.34 (5th ed. 1984); see also Matthew Russo, Productive Public Nuisance: How Private Individuals Can Use Public Nuisance to Achieve Environmental Objectives, 2018 U. ILL. L. REV. 1969, 1978 (2018).

category of greater harms, illustrating the legal lacuna for redress via a case review of four cases. In Part IV, I lay the groundwork for using the nuisance claim in IVF and sperm bank generated cases via a case study of four more cases, examining the population ramifications when serious diseases are introduced into the gene pool. Part V discusses the legal background for nuisance theory and provides the basis for its novel use in the context of the sperm bank errors. Part VI raises anthropological aspects of the problem. Here I raise the novel concept of saddling sperm banks with fiduciary status as they have (for a profit) usurped the right to parent—which, I claim, includes selection of the co-parent. Thus, when the sperm bank erroneously substitutes a different genetic package than selected, it effectively replaces the parent of choice, frustrating this right to parental selection. This section also sensitizes the reader to the concern about eugenics in this context.³¹

II. THE SPERM BANKING CRISIS

A. A Historical and Financial Overview

Advances in Assisted Reproductive Technologies (ART)³² have progressed exponentially³³ in the years following the birth of Louise Brown via

^{31.} Embryo Checks 'Should be Widened,' BBC NEWS (May 8, 2006), http://news.bbc.co.uk/2/hi/health/4750341.stm ("The UK Human Fertilisation and Embryology Authority currently allows embryos to be screened for inherited diseases such as cystic fibrosis . . . and two inherited cancer conditions . . . familial adematous polyposis (FAP), a type of bowel cancer, and cancer of the retina" using pre-implantation genetic diagnosis (PGD). Following a government report recommending screening for susceptibility genes linked to cancer, stakeholders objected: "[the] director of the group Comment on Reproductive Ethics, said: 'PGD is currently nothing more than a weapon of destruction, aimed at the ruthless elimination of any embryo which does not conform to eugenic concepts of perfection.' . . . Rachel Hurst, of Disability Awareness in Action, said: 'If you say that it's OK to say that you can eliminate embryos which would lead to disabled people, you're saying that disabled people are not people. And you're saying that their quality of life is not worth living, which is discriminatory and extremely prejudicial.'").

^{32.} Per the CDC, ART consists of all clinical treatments and laboratory procedures including handling human oocytes, sperm, and embryos—conducted with the intent of conceiving (e.g., IVF, gamete intrafallopian transfer, zygote intrafallopian transfer, sperm, oocyte, or embryo donation, and gestational surrogacy). *See* Implementation of the Fertility Clinic Success Rate and Certification Act of 1992—A Model Program for the Certification of Embryo Laboratories, 64 Fed. Reg. 39,374, 39,383 (July 21, 1999).

^{33.} The first reported human artificial insemination occurred almost two hundred years earlier when Dr. John Hunter advised a man to fill a syringe with sperm and inject it in his wife's vagina immediately after intercourse. CUSINE, *supra* note 10, at 12–13. The first Artificial Insemination by a Donor (AID) occurred in 1866 when a physician used sperm from his "handsomest" medical student to inseminate a patient at the behest of her husband; she became pregnant, none the wiser. Brent J. Jensen, *Artificial Insemination and the Law*, BYU L. REV. 935, 938 (1982).

IVF in 1978.³⁴ Short-term storage of semen (in dry ice) occurred decades earlier, in 1953. But it was the wide availability of long-term and efficient "cryobanking" (freezing sperm in nitrogen vapor) in the late 1990s³⁵ coupled with IVF, and fostered by cheap internet advertising³⁶ and electronic sperm selection that allowed for international sales and consumption.³⁷ These forces have propelled the ART industry to gargantuan heights:³⁸ in the last five years, the total number of babies born via reproductive technology skyrocketed from five million³⁹ to eight million,⁴⁰ with an increase of apparently one

35. "By 1963, liquid nitrogen was introduced as a method of long-term sperm cryopreservation, which allowed sperm freezing to become widespread . . . even after 40 years of cryopreservation. However, liquid nitrogen confers a risk of viral cross-contamination with other sperm samples in the same container. Consequently, most modern sperm storage banks utilize nitrogen vapor" Hamoun Rozati et al., *Process and Pitfalls of Sperm Cryopreservation* 6 (9) J. CLIN MED. at 89 (Sept. 2017).

36. "Prospective parents can search for everything about a donor-from his profession to his hair color-using a bank's online donor catalogue." How to Buy and Sell Sperm, ("Choose your guy, call the bank and order your sperm. Have it shipped directly to your doctor's office or to your home if your partner or midwife will be doing the honors.") (on file with author); See also Rusty Dornin, Surfing for Sperm, Reproduction in Cyberspace, CNN (July 24, 1998), http://www.cnn.com/HEALTH/9807/24/cyber.sperm/; Mary Crane, The Business of Love, Sperm for Sale, FORBES (Feb. 9, 2007), https://www.cryobank.com/ resources/pdf/news/sperm-for-sale.pdf. See e.g., Donor Selection, CALIFORNIA CRYOBANK, https://www.cryobank.com/why-use-us/donor-selection/ (last visited September 29, 2019); Why Choose Cryos, CRYOS, https://usa.cryosinternational.com/about/why-choose-cryos (last and visited September 29. 2019), Quality Assurance, Fairfax CRYOBANK https://fairfaxcryobank.com/quality-assurance (last visited September 29, 2019).

37. Mark S. Frankel, Cryobanking of Human Sperm, 1 J. ED. ETHICS, at 36 (1975).

38. An Embryonic Idea: Carrot, a Silicon Valley startup, Takes a Novel Approach to Funding IVF, ECONOMIST (June 30, 2018), https://www.economist.com/finance-and-economics/2018/06/28/carrot-a-silicon-valley-startup-takes-a-novel-approach-to-funding-ivf (noting 71,000 babies were born by IVF in America, tripled from two decades earlier and comprising 1.8 percent of all births. In Denmark, Israel, and Spain, babies born by IVF comprise as high as 4 percent of all births, possibly due to better insurance coverage); see also Yaniv Heled, The Regulation of Genetic Aspects of Donated Reproductive Tissue—The Need for Federal Regulation, 11 COLUM. SCI. & TECH. L. REV. 243 (2010), http://stlr.org/volumes/volume-xi-2009-2010/heled/.

39. Michelle Castillo, Report: 5 Million Babies Born Thanks to Assisted Reproductive Technologies, CBS NEWS (Oct. 15, 2013, 12:08 PM), https://www.cbsnews.com/news/report-5-million-babies-born-thanks-to-assisted-reproductive-technologies/; see A. P. Ferraretti et al., Assisted Reproductive Technology in Europe, 2012: Results Generated from European Registers by ESHRE, 8 HUM. REPROD. 1638 (2016); see also Victoria Clay Wright, Assisted Reproductive Technology Surveillance—United States, 2003, 55 MMWR No. 22-4, CDC (May 26, 2006), https://www.cdc.gov/mmwr/preview/mmwrhtml/ss5504a1.htm.

40. See Press Release, European Society of Human Reproduction and Embryology, More Than 8 Million Babies Born from IVF Since the World's First in 1978 (July 3, 2018),

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^{34.} Victoria Ward, *Louise Brown, the First IVF Baby, Reveals Family was Bombarded with Hate Mail*, TELEGRAPH (July 24, 2015, 9:55 AM), https://www.telegraph.co.uk/news/ health/11760004/Louise-Brown-the-first-IVF-baby-reveals-family-was-bombarded-with-hate-mail.html.

million in the last year alone.⁴¹ In addition, some one million embryos are estimated to reside in storage in some five hundred sperm banks in the United States. Some tech companies, such as Facebook and Google, even offer IVF as an employee benefit.⁴²

Technological advances add to the baby-making calculus, catapulting the fertility industry into a ten-billion-dollar business in 2017⁴³ (some estimates put it as high as seventeen billion dollars),⁴⁴ up from three billion in 2009⁴⁵ and projected to reach thirty billion in five years.⁴⁶ Some figures have global sales projected even higher: "[b]y 2026 the global fertility industry could rake in US \$41 billion in sales, from \$25 billion today. Today one in sixty Americans is born thanks to IVF and other artificial treatments. In Denmark, Israel and Japan the figure is more than one in twenty-five—and rising²⁴⁷ Notwithstanding limited insurance coverage⁴⁸—at least in the United States⁴⁹—excessive demand by people desperate for a baby (a vulnerable market) continues. Another market lies in catering to those seeking "designer children"⁵⁰ or those merely wanting children to look like them

44. Ariana Eunjung Cha, *How Religion Is Coming to Terms with Modern Fertility Methods*, WASH. POST (Apr. 27, 2018), https://www.washingtonpost.com/graphics/2018/ national/how-religion-is-coming-to-terms-with-modern-fertility-methods/.

45. CAHN, supra note 2.

46. The Fertility Market Is Projected to Reach Over \$30 Billion by 2023, MARKETWATCH (May 29, 2018), https://www.marketwatch.com/video/sectorwatch/thefertility-market-is-projected-to-reach-over-30-billion-by-2023/CEE9BE6F-E411-4666-9E81-5472C9BA34BF.html; but see Global IVF Services Market 2017-2023, supra note 43. (claiming "The Global IVF Services Market . . . is estimated to grow to 18.55 Billion USD by 2023."); see also K. Berg et al., The Diversity of Regulation and Public Financing of IVF in Europe and Its Impact on Utilization, 28 HUM. REPROD. 666 (2013).

47. Michael Cook, *Fertility Becomes a Global Money-Spinner, The Economist Analyses the Market*, BIOEDGE (Aug 18, 2019).

48. See Judith Daar, The New Eugenics: Selective Breeding in an Era of Reproductive Technologies (2017).

49. I'm Ready for IVF: What Will My Health Insurance Pay For?, WINFERTILITY, https://www.winfertility.com/insurance-coverage-for-infertility/ (last visited June 13, 2019).

50. Ariana Eunjung Cha, Discounts, Guarantees and the Search for 'Good' Genes: The Booming Fertility Business, WASH. POST (Oct. 21, 2017), https://www.washingtonpost.com/

https://www.eshre.eu/Annual-Meeting/Barcelona-2018/ESHRE-2018-Press-releases/De-Geyter.

^{41.} Cha, *supra* note 5, (claiming seven million babies have been born via IVF and related technologies).

^{42.} Lisa M. Krieger, *Fertility Center Failures – Would Oversight Help? Technology Failures at Fertility Clinics*, MERCURY NEWS (Mar. 12, 2018), https://www.mercurynews.com/2018/03/12/fertility-center-failures-would-oversight-help/.

^{43.} The Global IVF Services Market - by Cycle Type, End User, Region - Market Size, Demand Forecasts, Company Profiles, Industry Trends and Updates (2017-2023), MARKET INSIDER, Sept. 10, 2018 [hereinafter Global IVF Services Market 2017-2023] ("The Global IVF Services Market Was Worth 10.58 Billion USD in 2017.").

(one of the oldest parental urges⁵¹). Today prospective parents can search for everything about a donor (except his identity), from his profession to his hair color, using a bank's online donor catalogue.⁵²

High profit margins and greed surely drive lobbying efforts to preserve the "hands-off" approach of government regulation in some countries, like the United States, where regulations are few and enforcement all but nonexistent.⁵³ In fact, the sperm banking profit margin (reportedly as high as 83 percent, with a 2000 percent markup)⁵⁴ would be considered usurious if well known. Moreover, the "high operating margins—around 30% in America for a \$20,000 round of IVF—plus the recession-proof nature of desire for offspring," are features which excite investors.⁵⁵

B. A Panoply of Problems

Too rapid expansion of an unregulated business always brings problems⁵⁶—in this case errors and accidents.⁵⁷ Given that the primary motivation is profit rather than healthcare, the baby-making industry is, not surprisingly, responsible for more than its fair share. In fact, problems in IVF have

54. DEBORA L. SPAR, THE BABY BUSINESS: HOW MONEY, SCIENCE, AND POLITICS DRIVE THE COMMERCE OF CONCEPTION 37 n.17, 38 n.20 (2006).

55. Cook, supra note 47.

56. SPAR, *supra* note 54, at 2–6.

national/health-science/donor-eggs-sperm-banks-and-the-quest-for-good-genes/2017/10/21/64b9bdd0-aaa6-11e7-b3aa-c0e2e1d41e38_story.html.

^{51.} Jacob supposedly favored Joseph because of the strong physical resemblance. *See* Edward L. Greenstein, *Medieval Bible Commentaries*, *in* BACK TO THE SOURCES 215, 230 (Barry W. Holtz ed., 2008) (quoting Onkelos).

^{52.} See Lisa Jean Moore & Marianna Grady, *Putting 'Daddy' in the Cart: Ordering Sperm Online, in* REFRAMING REPRODUCTION 185 (M. Nash ed., 2014).

^{53.} While a license is required by the California Department of Public Health, it requires only names of employees, a list of tissue types stored and a written copy of policies and procedures. *See* Krieger, *supra* note 42.

^{57.} See Susannah Baruch et al., Genetic Testing of Embryos: Practices and Perspectives of U.S. In Vitro Fertilization Clinics, 89 FERTILITY & STERILITY 1053, 1055 (2008) (noting "21% of IVF-PGD clinics report that they have been aware of inconsistencies between the results of genetic analysis of embryos and later genetic testing"); see also Hebert v. Ochsner Fertility Clinic, 102 So. 3d 913, 915 (La. Ct. App. 2012) (discussing "inadequate control and supervision of [fertility clinic] procedures"); SHARON T. MORTIMER & DAVID MORTIMER, QUALITY AND RISK MANAGEMENT IN THE IVF LABORATORY 40–44 (2d ed. 2015) (detailing risk factors like inadequate staffing and training, equipment and power failures, and shoddy labeling, documentation, and incident reporting that make adverse reproductive outcomes more likely); Fox, supra note 16, at 152 n.8 ("lamenting that 'only very few ART laboratories . . . have implemented a quality system' to minimize errors involving lost embryos or switched samples") (citing J.P.W. Vermeiden, Laboratory-Related Risks in Assisted Reproductive Technologies, in ASSISTED REPRODUCTIVE TECHNOLOGIES: QUALITY AND SAFETY 127, 128–29 (Jan Gerris et al. eds., 2004)).

"increased more than fourfold since 2008."⁵⁸ Among clinics reporting errors, one in five reported errors in labelling, diagnosing, handling donor samples and embryos for implantation.⁵⁹

Aggressive recruitment of sperm suppliers further compounds the problems,⁶⁰ especially as the come-on is often in-your-face financial inducements. For example, an online ad by Xytex Corporation for sperm suppliers (now removed from the internet) reads:

Image 1. A now-removed ad soliciting sperm donations.⁶¹



Problems range from lost or destroyed gametes, to depriving would-be parents from a chance to procreate,⁶² to multiple embryos destroyed or lost,⁶³

58. HUMAN FERTILISATION AND EMBRYOLOGY AUTH., STATE OF THE FERTILITY SECTOR: 2016–17, at 24–26 (2017), https://www.hfea.gov.uk/media/2437/hfea_state_of_the_sector_report_tagged.pdf.

59. Baruch et al., supra note 57.

60. *E.g.*, International Cryogenics of Michigan pays their suppliers "\$45 for each sample" . . . "the samples are then subdivided, averaging three vials of 20 million motile sperm apiece, with each vial selling for \$200 to \$250," making the total sales profit per "donation" about \$700. *See* Denise Grady, *As the Use of Donor Sperm Increases, Secrecy Can Be a Health Hazard*, N.Y. TIMES, June 6, 2006, at F8, https://www.nytimes.com/2006/06/06/ health/06opin.html. An internet comment by a sperm supplier is telling: "If you want to be a donor, you need to be tall, strong, fit for breeding and an exemplary model of traditional success. Blue-eyed, spaghetti-loving brain surgeons who are somehow six-foot-four and free at noon on a Thursday—that's the archetype. The reality is, most donors are young men with flexible hours who could use the cash. Like me." Adam Shadows, *What It's Like to Donate Sperm to a Sperm Bank*, ELITE DAILY (Apr. 19, 2017), https://www.elitedaily.com/life/i-donated-sperm-bank/1860397.

61. *Becoming a Donor*, XYTEX, https://www.xytexdonor.com/ (last visited Feb. 19, 2017) (Content of screenshot taken Feb. 2017 by author. No longer available).

62. Amy Goldstein, *Fertility Clinic Informs Hundreds of Patients Their Eggs May Have Been Damaged*, WASH. POST (Mar. 11, 2018), https://www.washingtonpost.com/national/health-science/fertility-clinic-informs-hundreds-of-patients-their-eggs-may-be-damaged/

2018/03/11/b605ea82-2536-11e8-b79d-f3d931db7f68_story.html (In March of this year, a "long-established San Francisco fertility clinic experienced a liquid nitrogen failure in a stor-

to switched embryos implanted in the wrong mothers,⁶⁴ all on a systemic basis.⁶⁵ Other harms occur when banks implant the wrong sperm into individual recipients.⁶⁶ Generally, these errors are only detected where the mother and selected sperm donor are of different racial or ethnic varieties,⁶⁷ as in the case of *Cramblett v. Midwest Sperm Bank*.⁶⁸ Hence, it is likely that hundreds or perhaps thousands of instances of "switched at the test tube" babies go undetected. Whether the birth of a biracial child can be said as a matter of public policy to constitute damage or harm may be subject to cultural interpretation, whether ongoing sperm bank sloppiness that facilitates these mix-ups should be tolerated, is not.

We also have cases of switched embryos. Here, the rights of biological and birthing parents can collide with those of the child⁶⁹ and we are presented with a Solomonic question of whose baby is it? These claims cause in-

63. Ginger Christ & Julie Washington, *UH Fertility Clinic's Incident: What We Know, What We Still Don't*, CLEVELAND (Mar. 18, 2018), https://www.cleveland.com/healthfit/2018/ 03/uh_fertility_clinics_incident.html (stating that "2,000 eggs and embryos . . . may have been damaged or destroyed" from freezer coolant leaks); *see* Michan Vaughn et al., *Liability for Mismanagement of Sperm Specimens in Fertility Practices*, FERTILITY AND STERILITY (Jan. 2015), https://www.fertstert.org/article/S0015-0282(14)02220-1/fulltext; *see also* Doe v. Nw. Mem'l Hosp., 19 N.E.3d 178, 184 (III. App. Ct. 2014); Yearworth v. N. Bristol NHS Trust, [2009] EWCA (Civ) 37. Other incidents have been anecdotally reported to the author.

64. "Dozens of women may have had eggs fertilised [sic] by sperm cells from someone other than the intended father, say Dutch authorities." Agence France-Presee, *IVF Mix-up: Wrong Sperm May Have Fertilised Eggs of 26 Women*, GUARDIAN, (Dec. 27, 2016), https://www.theguardian.com/society/2016/dec/28/ivf-mix-up-wrong-sperm-may-have-fertilised-eggs-of-26-women.

65. Georgia Everett, *Sperm Mix-up Involving 26 Women at Dutch IVF Clinic*, BIONEWS (Jan. 9, 2017), https://www.bionews.org.uk/page 95838.

66. Suzanne Lenon & Danielle Peers, 'Wrongful' Inheritance: Race, Disability and Sexuality in Cramblett v. Midwest Sperm Bank, 25 FEMINIST LEGAL STUD. 141 (2017); but see Robert Leckey, Suing on the Shoulders of Others, JOTWELL (Nov. 21, 2017), https://equality.jotwell.com/suing-on-the-shoulders-of-others/.

67. Andrews v. Keltz, 838 N.Y.S.2d 363, 365 (N.Y. Sup. Ct. 2007) (where a white couple gave birth to biracial child).

68. Cramblett v. Midwest Sperm Bank, LLC, No. 2–16–0694, 2017 WL 2800062, ¶ 5 (Ill. App. Ct. June 27, 2017).

69. Robert Verkaik, *Biological Father 'Wins' in IVF Mix-up Case*, INDEPENDENT (Feb. 27, 2003), https://www.independent.co.uk/news/uk/crime/biological-father-wins-in-ivf-mix-up-case-120574.html.

age tank hold thousands of frozen eggs and embryos."); see also Lisa Krieger, Lawsuit Filed Over Lost Eggs at San Francisco Fertility Clinic, MERCURY NEWS (Mar. 13, 2018), https://www.mercurynews.com/2018/03/13/lawsuit-filed-over-lost-eggs-at-san-francisco-fertility-clinic/; Catherine Ho, San Francisco Woman Sues Fertility Center after Frozen Eggs Destroyed, S. F. CHRON. (Mar. 14, 2018, 3:45 PM) https://www.sfchronicle.com/business/article/San-Francisco-woman-sues-fertility-center-after-12752957.php?psid=9ubTP (discussing S.M. v. Pac. Fertility Ctr., No. 3:18-cv-01586 (N.D. Cal. filed Mar. 13, 2018) wherein some four hundred individuals filed suit in the U.S. District Court, Northern District of California, San Francisco Division).

tense emotional disturbances for the parents and the child, often presented in gut-wrenching custody battles.⁷⁰ Such situations have been reported in at least fourteen locations around the world.⁷¹ In one case, the fertility specialist hid the fact that a mother was given the wrong embryo until the baby was ten months old.⁷² In a classic example of shutting the barn door after the horse escaped, the American Society of Reproductive Medicine later issued the startling advice that fertility clinics have an ethical obligation to immediately disclose mistakes that could result in babies born with a "different genetic parentage than intended."⁷³ I could find no report of legal action by the parents (although the doctor's license was suspended).⁷⁴

In *Perry-Rogers v. Fasano*,⁷⁵ the embryo belonging to Deborah Perry-Rogers and her husband, Richard, was negligently implanted in the uterus of Donna Fasano. Fasano, who had consulted the same IVF facility, ultimately gave birth to two children, her biological child, a white boy named Vincent, and the biological child of the Rogers, a black boy she named Joseph. Both couples were notified one month after the error was discovered, but the Fasanos obstructed access to Joseph by his biological parents. In July of 1999 (seven months after the child was born) the Rogers were given custody, but in January 2000 the court granted the Fasanos visitation every other weekend. Both parties appealed. Further custody proceedings ensued during

71. See Sharon Kirkey, Switched Embryos and Wrong Sperm: IVF Mix-ups Lead to Babies Born With 'Unintended Parentage', NAT'L POST (July 31, 2016, 9:42 AM), https://nationalpost.com/health/ivf-mix-ups-lead-to-babies-born-with-unintended-parentage.

72. See Maggie O'Farrell, *IVF Mother: 'I Love Him to Bits. But He's Probably Not Mine'*, GUARDIAN (Oct. 29, 2009), https://www.theguardian.com/lifeandstyle/2009/oct/30/ivf-errors-baby-mix-up); see also Creed v. United Hosp., 600 N.Y.S.2d 151, 151–52 (App. Div. 1993); Complaint at 4–5, Walterspiel v. Jain, No. BC467123 (Cal. Super. Ct. Aug. 17, 2011), 2011 WL 3808662; Mike Celizic, *Genetic Parents of Embryo Felt 'Powerless'*, TODAY (Sept. 23, 2009), https://www.today.com/health/genetic-parents-embryo-felt-powerless-1C9404873; *Woman Awarded \$1 Million in Embryo Mix-up*, NBC NEWS (Aug. 4, 2004), http://www.nbcnews.com/id/5603277/ns/health-womens_health/t/woman-awarded-million-embryo-mix-up/#.XRKTnS2ZO5E. But see *Perry-Rogers v. Obasaju*, 282 A.D.2d 231 (N.Y. App. Div. 2001), where the parents did sue the doctors in a similar situation. The suit was apparently settled.

73. Kirkey, supra note 71.

74. See Katherine Seligman, License Revoked for Embryo Mix-up, SFGATE (Mar. 31, 2005, 4:00 AM), https://www.sfgate.com/bayarea/article/SAN-FRANCISCO-License-revoked-for-embryo-mix-up-2689103.php ("Medical Board of California has revoked the license of a prominent San Francisco fertility specialist because of his role in an embryo mix-up that is still being played out in a child custody battle The board's action, [the doctor said], was 'a catastrophe for him and his family."").

75. Perry-Rogers v. Fasano, 276 A.D.2d 67 (N.Y. App. Div. 2000).

^{70.} *Id. See also* M. Spriggs, *IVF Mixup: White Couple Have Black Babies*, 29 J. MED. ETHICS 65 (2003) ("Under the Human Fertilisation and Embryology Act 1990, a woman who has a child born through IVF, even if it is not genetically hers, is the 'legal mother.' Paternity, however, is 'open to legal interpretation.'").

which time the child was shuttled back and forth between both claimants, undoubtedly leading to confusion and emotional angst. On October 26, 2000, when the child was almost two the case was finally decided, and the child's contact with the Fasanos (and his foster brother, Vincent) was severed.⁷⁶ No discussion is made about harm caused to the child other than noting the decision was not based on the "best interests of the child" but rather parental rights.⁷⁷ A malpractice action for limited emotional distress was allowed against the doctors.⁷⁸ But illustrating the void in government oversight, "a Health Department spokeswoman said that punitive action against Dr. Obasaju was unlikely because the state does not license or certify embryologists."⁷⁹

Custody battles aside, these switched *embryo* situations present a worse harm than switched *sperm* cases.⁸⁰ In the case of switched sperm, at least the offspring is guaranteed a biological affinity with its mother. In switched embryo cases, the child bears no biological connection with either parent. Indeed, these situations call into question the entire notion of parentage.⁸¹ But by far the worst problems are those where children carry a genetic anomaly as a result of the actions of the IVF facility or sperm bank.⁸²

80. See Perry-Rogers, 276 A.D. 2d at 74-75.

^{76.} In Britain, the opposite result would have transpired, as the gestational mother is considered the legal mother, regardless of genetic affinity. *See* Spriggs, *supra* note 70. This leads to the interesting conflict of laws/comity question: If a British woman has IVF with the egg of an American woman, whose baby is it? In Britain, it would be the British woman; in America, the American's. If the American woman births the child of a British embryo, in American the child is British; in Britain, it is American.

^{77.} Perry-Rogers, 276 A.D.2d at 67.

^{78.} Perry-Rogers v. Obasaju, 282 A.D.2d 231 (N.Y. App. Div. 2001) (which was apparently settled).

^{79.} Jim Yardley, *Birth Mix-Up Avoidable, Inquiry Finds*, N.Y. TIMES (Apr. 17, 1999), https://www.nytimes.com/1999/04/17/nyregion/birth-mix-up-avoidable-inquiry-finds.html.

^{81.} Raizel Liebler, Are You My Parent? Are You My Child? The Role of Genetics and Race in Defining Relationships After Reproductive Technological Mistakes, 5 DEPAUL J. HEALTH CARE L., 15, 17 (2002) ("I argue that parenting is more than a genetic connection to a child, yet should be a starting point for determining parenthood, considering the emotional consequences...").

^{82.} See e.g., Johnson v. Sup. Ct. of L.A. Cty., 95 Cal. Rptr. 2d 864, 868 (Cal. Ct. App. 2000).

C. Solutions Found Wanting

1. Regulation

More than a decade ago, Professor Yaniv Heled wrote a prescient piece documenting the dangers incident to lack of regulation of the industry.⁸³ Professor Heled illustrated his premise by noting consequences of transmittal of genetic diseases such as cystic fibrosis to individual children and proposed federal regulation as the solution. Others agree.⁸⁴ Professor Dov Fox, in an aside, asserts that "regulation would be better [than any private tort claim, as] tort law gets activated after the wrong; [but the] political climate and economics of the industry make robust regulation and enforcement a long shot."⁸⁵ Certainly, if Professor Heled's legislative suggestions were implemented when they were first raised, or at least heeded as a clarion call to provide other solutions, the situation now would not be as dire as the evidence indicates.⁸⁶

One expert blamed the American problems on a lack of a "statutory national body, such as Australia's Reproductive Technology Accreditation Committee or England's Human Fertilization and Embryology Authority."⁸⁷ If doable, federal regulations could be an adjuvant to fixing the problems, but they would not solve them all. Indeed, where regulation is in place, multiple errors still occur. For example, the United Kingdom's comprehensive regulatory system (the Human Fertilization and Embryology Act of 1990), along with a centralized oversight bureau, has existed for decades.⁸⁸ Nevertheless, in 2010, "some 564 serious errors occurred in British IVF centers

^{83.} See Heled, supra note 38.

^{84.} CAHN, supra note 2; see also Alexander N. Hecht, The Wild West: Inadequate Regulation of Assisted Reproductive Technology, 1 HOUS. J. HEALTH L. & POL'Y 227, 238 (2001); Karen N. Ginsburg, FDA Approved? A Critique of the Artificial Insemination Industry in the United States, 30 U. MICH. J.L. REF. 823, 832 (1997) (arguing federal statutes are the only way to consistently regulate aspects of sperm donorship).

^{85.} Fox, *supra* note 16, at 209.

^{86.} *IVF Errors*, IMT INT'L., http://www.imtinternational.com/errors-ivf/ (last visited Oct. 8, 2018) ("We have a tally of some of the most well-known catastrophic mistakes from the last decade. Each resulted in complex litigation, financial expense, and reputational damage, as well as the emotional and ethical consequences. But we also know that these are likely to be only the tip of the iceberg.").

^{87.} *Global IVF Services Market 2017-2023, supra* note 43 (per Dr. G. David Adamson, Director of Palo Alto Medical Foundation's Fertility Physicians of Northern California).

^{88.} Human Fertilisation and Embryology Act of 1990, c. 37 (UK) https://www.legislation.gov.uk/ukpga/1990/37/introduction?view=extent; DEPARTMENT OF HEALTH, REVIEW OF THE HUMAN FERTILIZATION AND EMBRYOLOGY ACT, 2006, (UK) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data /file/272391/6989.pdf.

[alone] . . . more than ten every week.³⁹⁹ More than 1,600 incidents were reported between 2010 and 2012 alone.⁹⁰ In 2014 the British Human Fertilisation and Embryology Authority (HFEA) reported adverse incidents at a frequency of one per every one hundred cycles of treatment,⁹¹ similar to error rates in U.S. facilities.⁹² According to the global IVF Mistake Log list by IMT Matcher, an international IVF monitoring and management firm, no less than twelve IVF incidents (sometimes affecting multiple births) were reported four American incidents.⁹⁴ Further, British case law is ample,⁹⁵ reflecting multitudinous sperm bank accidents. Of course, with regulation comes better reporting, and it is difficult to determine if the manifold errors reported in the UK are due to lax practice or better reporting.

Late-breaking reports however, suggest that the increase in problems is not an artifact of better reporting or additional inspections, but something else. According to a recent (and misleadingly titled) report in *BioNews* the number of non-compliances per inspection decreased every year since 2015–16, but the number of errors and safety incidents rose by 18 percent. Errors and incidents had increased by 6 percent in the last year, alone. Since it is hardly likely that over the past year sperm banks instituted more enhanced reporting standards, something else must be at play.⁹⁶

94. Id.

95. See ACB v. Thomson Med. PTE Ltd, [2017] SGCA 20, (Ct. App. Sing., Mar. 22, 2017) Civil Appeal No. 17 of 2015.

96. Laura Riggali, *Fertility Treatment Is Becoming Safer Says HFEA Report*, BIONEWS (Oct. 7, 2019) https://www.bionews.org.uk/page_145367.

^{89.} Sophie Borland, *IVF Clinic Blunders Treble in Three Years as Ten Mistakes Every Week Bring Heartbreak to Couples*, DAILY MAIL, (Aug. 12, 2011), https://www.dailymail.co.uk/health/article-2025501/IVF-clinic-blunders-10-mistakes-week-bring-heartbreak-couples.html; *see also* SPAR, *supra* note 54.

^{90.} Kirkey, supra note 71.

^{91.} *IVF Blunders Result in Child Born from Wrong Sperm*, TELEGRAPH (July 8, 2014), https://www.telegraph.co.uk/news/health/news/10952501/IVF-blunders-result-in-child-born-from-wrong-sperm.html; *see also* SPAR, *supra* note 54, at 3, 38, n.9.

^{92.} Cf. Fox, supra note 16, at 152.

^{93.} IMT International, IVF Management Technologies, reported that in May of 2018 alone there were three serious IVF errors. *IVF Errors, supra* note 86; *see also IVF Blunders, Mistakes or Errors – Just Not Rare,* IN-FERTILITY BLOG (Jan. 8, 2017), http://infertility.eu/2017/01/08/ivf-blunders [hereinafter *IVF Blunders*].

Some High-Profile Catastrophic Examples							
Location	Year	Description & Cause					
Broadway Fertility Clinic, Ottawa, Can.	2007	Five women received wrong sperm in four incidents between 1986–2007. Doctor unsure how the mistakes occurred.					
IVF Wales, UK	2007	Couple's last remaining frozen embryo given to another woman (terminated).					
Guy's & St. Thom- as' Hospital, UK	2009	Three couples had wrong sperm injected into eggs, discovered before transfer and de- stroyed. Due to wrong labeling, working with multiple samples in the same workstation, plus employee thawing embryos wrote on a Post-It note and put it on the wrong paper records.					
Ohio, US	2009	Woman had wrong baby due to being wrong thawed embryo. Employee had wrongly writ- ten a date of birth as 1967 not 1969 on label.					
Ramsgate IVF, UK	2009	Two frozen embryos belonging to one woman were lost that had been there in 2007. Note on file read "thawed", no evidence if transferred or destroyed.					
Thomson Medical Centre, Singapore	2010	Woman had wrong baby due to use of wrong sperm after lapses in procedure and human error. No double checks, plus pipettes reused for the "same" labelled patient.					
Chiang Mai Ram Hospital/Kullapat Medical Poly Clin- ic, Thailand	2010	New Zealand couple went to Thailand to have IVF using a surrogate and egg donor, but DNA test showed it had no genetic connection to either the husband or egg donor. Wherea- bouts of the intended genetic material remain unknown					
IVF Wales, UK	2010	Couple told that clinic had lost their frozen embryos just before due to implant it.					
Victory ART Lab., Hong Kong	2011	Woman given two embryos belonging to an- other couple. Embryologist did not correctly read label before transfer and no double-check performed.					

Chart 1: High-Profile Examples of Sperm Bank Errors.97

⁹⁷ IVF Mistakes Log, IMT INT'L. (Jan. 30, 2017) (on file with author and editor).

In actuality, sperm banks are regulated in the United States, at least to a certain extent,⁹⁸ under the authority of the Centers for Disease Control (CDC) and the FDA.⁹⁹ The CDC's prime focus is determining success rates,¹⁰⁰ while the FDA is charged with regulating procedural aspects. In practice, the FDA confines its oversight to monitoring screening for ten infectious diseases.¹⁰¹ One possible approach to protecting sperm bank consumers is expanding policy directives at the FDA. However, enacting and implementing regulations would be a protracted process, even assuming the legislature could reach an agreement. Another issue is the risk of tort preemption.¹⁰² We need to ask ourselves: do we trust the federal government to have the expertise and personnel to adequately carry the job through?

Blanket focus on *the need to regulate* also blinds us as to *what to regulate:* which specific regulations actually prevent harm? One commentator suggested better labelling requirements, including bar-code technology.¹⁰³ This might help. On the other hand, a visit to an IVF clinic or a careful review of IVF mistake reports indicates it won't be enough. Errors occur because of sloppy housekeeping, reckless performance, and failure to adhere to internal quality control and assurance checks. Specifically, at least two incidents occurred from improperly cleaning the pipettes used to deposit sperm into culture media.¹⁰⁴ Better labelling technology would do nothing to rectify these problems.¹⁰⁵

100. The U.S. Fertility Clinic Success Rate and Certification Act of 1992 requires fertility clinics and ART practitioners to report to the CDC its yearly success rate. Pub. L. No. 102-493, 106 Stat. 3146.

101. 21 C.F.R. § 1271.75 (2004); 21 C.F.R. § 1271.80 (2004). HIV types 1 & 2, Hepatitis B & C, Treponema pallidum; Human T-lymphotropic virus: type 1 & 2; Chlamydia trachomatis and Neisseria gonorrhea and Cytomegalovirus; 21 C.F.R. § 1271.85 (a)–(c) (2009). *But* see Stiver v. Parker, 975 F.2d 261 (6th Cir. 1992); see also Michael J. Joyce & Donna Toohey, *FDA's Tissue Action Plan: Safeguarding the Public*, AM. ACAD. ORTHOPEDIC SURGEONS (Oct. 2004), http://www2.aaos.org/bulletin/oct04/fline6.htm.

102. See Wyeth v. Levine, 555 U.S. 555 (2009).

103. See Fox, supra note 16, at 213 ("One straightforward idea is labeling sperm, eggs, and embryos with barcodes to prevent mix-ups.") (citing Sergi Novo et al., Barcode Tagging of Human Oocytes and Embryos to Prevent Mix-ups in Assisted Reproduction Technologies, 29 HUM. REPROD. 18 (2014)).

104. See Kirkey, supra note 71.

105. Judith Daar, Regulating Reproductive Technologies: Panacea or Paper Tiger?, 34 Hous. L.R. 609 (1997) (noting that "industry self-regulation coupled with market forces

^{98.} Public Health Services Act, 42 U.S.C.S. § 201 (2001); see also 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, 23–24 (2010).

^{99.} Alexandra Elizabeth Kilduff, *The Birth of a Tort Liability Theory? Legal Remedies for Families of Children Who Inherit Diseases from Gamete Donors*, SETON HALL UNIV. (May 1, 2014), https://scholarship.shu.edu/student_scholarship/504/?utm_source=scholarship .shu.edu%2Fstudent_scholarship%2F504&utm_medium=PDF&utm_campaign=PDFCoverP ages.

Even with adequate regulations, regulation is useless without enforcement. Since many labs are generally accredited per state regulations,¹⁰⁶ state *enforcement* would be crucial to any viable regulatory scheme. But legislation and enforcement by states would be uneven. For example, only two states currently have specific genetic screening regulations, New York¹⁰⁷ and Ohio.¹⁰⁸ And although four states (Massachusetts, Florida, Connecticut and Michigan) trace birth defects and cancer registries of resultant offspring,¹⁰⁹ the rest have no regulations relating to genetic diseases. Further, notwithstanding New York's regulations, two of the four cases resulting in greater harms (discussed below) arose in New York.¹¹⁰

Another option is private regulation, a practice recently undertaken by various religious groups¹¹¹ and commercial entities. Under the concept that another pair of eyes and oversight presence can only help to mitigate errors, such oversight bodies can be a boon. And, although many commentators agree regulation is warranted, as pointedly articulated by Professor Naomi Cahn,¹¹² regulations are often predicated on local ethical, moral,¹¹³ or cultur-ally-driven sensitivities—such as who is eligible to provide and receive

107. New York requires a detailed medical history for "major genetic disorders" and requires donors whose history indicates family or personal history of Tay-Sachs disease, thalassemia, cystic fibrosis and/or sickle cell anemia to be tested for those diseases. N.Y. COMP. CODES R. & REGS, tit. 10 § 52-8.5(b)(2); 52-8.6(h) (LexisNexis 2000).

108. Ohio law requires medical personnel to take a complete medical history of the donor, including, but not limited to, "any available genetic history of the donor." OHIO REV. CODE ANN. § 3111.91(B)(1)(a) (West 2013).

109. States Monitoring Assisted Reproductive Technology Collaborative, CTRS. FOR DISEASE CONTROL AND PREVENTION, https://www.cdc.gov/art/smart/index.html (last reviewed May 7, 2019); see also Baruch et al., supra note 57; CAHN, supra note 2.

110. See infra notes 161–168 and accompanying text.

111. See Cha, supra note 44.

112. "Few laws in the United States are directly concerned with assisted reproductive technology. As an increasing number of people use fertility services, the industry has outpaced regulation. There is clearly a need for additional governmental oversight," according to Naomi Cahn, Professor of Law at The George Washington University Law School, quoted in U.S. Fertility Center Regulation Crisis, PFEIFFER, WOLF, CARR & KANE (Oct. 20, 2019), https://prwlegal.com/practice-areas/regulatory-crisis/. See also CAHN, supra note 2, at 140.

113. Israeli regulations focus on preventing incest, are silent on regulating sperm bank practices, assure anonymity of the sperm donor, and allow the sperm bank doctor the final say on sperm selection, a feature that would shield the facility from liability if the wrong sperm were implanted. *See* Toi Staff, *Hospital Accidentally Implants Woman with Wrong Fertilized Egg*, TIMES OF ISR. (Jan. 27, 2017, 3:24 AM), https://www.timesofisrael.com /hospital-accidentally-implants-woman-with-wrong-fertilized-egg/.

driven by more informed and empowered consumers will do more good than any additional government regulation.").

^{106.} See Naomi Cahn, When Fertility Clinics get it Wrong, FORBES, Aug. 8, 2019; but see 42 U.S.C. § 263(a)(2) (regarding "supervision or control over the practice of medicine in assisted reproductive technology programs" which may apply only to certification programs developed through the CDC and not the FDA).

sperm—and may not lend themselves to universal acceptance. Thus, while regulation is likely to be an adjuvant to treating the problem, it is unlikely to cure it completely.

In the decade following Professor Heled's article, the potential horrors of sperm bank practices have entered the realm of reality—not just in the United States, but globally. With the advent of international cross-pollination of sperm sales, American domestic regulation would have little impact on the sale of American sperm abroad or insemination of American women in reproductive-tourism havens such as Turkey¹¹⁴ or Israel, where the Ministry of Health has proposed a sperm bank bill that gives prospective parents no protection from negligence on the part of sperm banks and, in fact, shields the physician from liability.¹¹⁵ Nor would regulating American facilities address global legal discord, such as whether the child has the right to know his or her genetic identity, or reconcile different screening and testing practices and policies around the world.¹¹⁶

International variation in allowable donations is a case in point. Hong Kong limits suppliers to fathering three children;¹¹⁷ Israel has proposed legislation that similarly will limit donations to three offspring;¹¹⁸ and the Netherlands supposedly limits donors to twenty-five children.¹¹⁹ In 1990, The Human Fertilisation and Embryology Act in Great Britain limited the number of families created by a sperm (or egg) donor to ten families,¹²⁰ although

^{114.} See M. Said Yildiz & M. Mahmud Khan, *Opportunities for Reproductive Tourism:* Cost and Quality Advantages of Turkey in the Provision of In-Vitro Fertilization (IVF) Services, BMC HEALTH SERV. RES., Aug. 2016, at 1, 4.

^{115.} See proposed Israeli Sperm Bank bill [hereinafter Proposed Israeli Sperm Bill]; Sperm Donations, MINISTRY OF HEALTH ISR., https://www.health.gov.il/English/Topics/fertility/Pages/sperm-bank.aspx (last visited July 5, 2019).

^{116.} See Marcus Lütticke, No Anonymity for Sperm Donors, Court Rules, DW, July 2, 2013, http://dw.de/no-anonymity-for-sperm-donors-court -rules/a-16582786.

^{117.} What is "Sperm Donor Treatment" Programme?, IVFHK CHINESE UNIV. OF HONG KONG, https://www.ivfhk.com/treatments/special-services/gamete/sperm-donor (last visited July 5, 2019).

^{118.} Proposed Israeli Sperm Bill, supra note 115.

^{119.} A "limit of 25 offspring has been in effect since 1992 and is designed to keep levels of consanguinity among donor-conceived people similar to that in the overall population. When a donor's genetic material is present in a large number of offspring, the (very small) risk that two half-siblings might form an intimate relationship is increased." Jennifer Willows, *Dutch Sperm Donor May Have Fathered 102 Children*, UK BIONEWS, (Aug. 29, 2017), https://www.bionews.org.uk/page_96146. Recent reports indicate that the regulation may be honored in its breach. *See* Grady, *supra* note 60; Cook, *infra* note 213.

^{120.} Rebecca Smith, British Man 'Fathered 600 Children' at Own Fertility Clinic, TELEGRAPH (Apr. 8, 2012, 9:38 PM), https://www.telegraph.co.uk/news/9193014/British-man-fathered-600-children-at-own-fertility-clinic.html.

enforcement is clearly lax.¹²¹ China's policy allows for the fewest number of pregnancies per supplier, limiting use of a supplier's sperm to impregnating no more than five women.¹²² By comparison in the United States there are no regulations. However, an advisory by the American Society of Reproductive Medicine recommends individual suppliers be limited to providing sperm for twenty-five donations per a population of 800,000.¹²³ But even this is merely a non-enforceable recommendation, and, as we will see below, abuses abound.

2. Wrongful Life and Wrongful Birth Claims

a. An overview of cases involving physician negligence

It is becoming clear that regulations do not work even where they do exist. Another potential method of legal redress is tort law.¹²⁴ Once upon a time, tort law acted as a private attorney general¹²⁵ and punitive damages were effective deterrents.¹²⁶

Most lawsuits seeking recovery for reproductive harm¹²⁷ sound in negligence¹²⁸ under the claims of "wrongful life" and "wrongful birth,"¹²⁹ terms which are mangled and commingled by the courts.¹³⁰ Strictly speaking,

124. See Goodwin, supra note 18 (exploring "the viability of tort law to address the private and costly harms resulting from negligent application of ART"); see also HENRY T. GREELY, THE END OF SEX AND THE FUTURE OF HUMAN REPRODUCTION 226–27 (2016) (noting that if reproductive services "did not produce the promised results for relatively straightforward genetic traits, a malpractice suit would be a plausible response (although it is unclear when the parents would be entitled to any damages)").

125. Miotke v. City of Spokane, 678 P.2d 803, 821 (Wash. 1984).

126. See Paul D. Rheingold, The MER/29 Story—An Instance of Successful Mass Disaster Litigation, 56 CAL. L. REV. 116, 143 (1968).

127. Gregory G. Sarno, *Tort Liability for Wrongfully Causing One to Be Born*, 83 A.L.R. 3d 15, 2 (2011).

128. See Kilduff, supra note 99, at 23-26.

129. See Gleitman v. Cosgrove, 227 A.2d 689, 692 (N.J. 1967); James v. Caserta, 332 S.E.2d 872, 879 (W. Va. 1985).

130. See e.g., Collins v. Xytex Corp., 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015). The saga begins with Judge McBurney framing the *Collins* case in wrongful life terms but

^{121.} See Hannah Crocker, Super Dad Sperm Donor Has 800 Children and Becomes a Father Once a Week, MIRROR, (Jan. 13, 2016), https://www.mirror.co.uk/news/uk-news/ super-dad-sperm-donor-800-7170289.

^{122.} Dan Gong et al., *An Overview on Ethical Issues About Sperm Donation*, 11 ASIAN J. ANDROLOGY 645, 646 (2009).

^{123.} The "American Society for Reproductive Medicine (ASRM) recommends a limit of 25 children per population of 800 000 for a single donor." *Id.* (This would allow an individual donor to sire about one hundred children in the United States (!)). *See also Repetitive Oocyte Donation: A Committee Opinion*, AM. SOC'Y FOR REPROD. MED. 1, 1 (2014), https://www.asrm.org/globalassets/asrm/asrm-content/news-and-publications/practice-guidelines/for-non-members/repetitive oocyte donation-noprint.pdf.

"wrongful life" is the child's claim for being born.¹³¹ Parents seeking damages (e.g., for cost of child-rearing, extra care, etc.) bring "wrongful birth" cases.¹³² "Wrongful conception" refines that claim and refers to the parents' "lost chance" to avoid birthing a *healthy* but undesired child,¹³³ such as when the physician fails to perform a sterilization procedure correctly. By comparison, the narrow wrongful birth definition traditionally referred to instances where the physician failed to detect or advise of a genetic defect, depriving parents of the right to abortion.¹³⁴

The tort with the "teeth" (i.e., having deterrence value) is the wrongful life claim because it would include the child's claim for pain and suffering which supports claims for punitive damages. This claim, however, has been uniformly rejected, except in three states: California,¹³⁵ New Jersey,¹³⁶ and

132. Wrongful Birth, BLACK'S LAW DICTIONARY 1612 (6th ed. 1990); see also Becker v. Schwartz, 386 N.E.2d 807, 811 (N.Y. 1978).

133. E.g., Sofia Yakren, Wrongful Birth Claims and the Paradox of Parenting a Child with a Disability, 87 FORDHAM L. REV. 583, 588 (2018).

134. Thomas D. Rogers, III, *Wrongful Life and Wrongful Birth: Medical Malpractice in Genetic Counseling and Prenatal Testing*, 33 S.C. L. REV. 27, 54 (1982). *See also* Order on Defendant's Motion to Dismiss at n. 6, Norman v. Xytex, No. 2017CV298536 (Sup. Ct. Fulton Cty. Ga. 2018) (noting that wrongful conception cases involve "only those claims in which the alleged negligence resulted in *un*desired conception," which generally results in a healthy child).

135. Harbeson v. Parke-Davis, Inc., 656 P.2d 483, 495 (Wash. 1983); Stewart-Graves v. Vaughn, 170 P.3d 1151, 1160 (Wash. 2007) ("In recognizing a wrongful life claim, this court reasoned that it would be anomalous to permit recovery by parents alone.").

136. Geler v. Akawie, 818 A.2d 402, 413 (N.J. Super. Ct. App. Div. 2003) (citing Berman v. Allan, 404 A.2d 8, 14 (N.J. 1979)); Procanik v. Cillo, 478 A.2d 755, 762 (N.J. 1984) (holding that "a child or his parents may recover special damages for extraordinary medical expenses incurred during infancy, and that the infant may recover those expenses during his majority"). *But see* Gleitman v. Cosgrove, 227 A.2d 689, 692 (N.J. 1967) (where the court rejected such a claim).

commingling the concept with wrongful birth, "the claim most closely (though by no means perfectly) fits a claim for wrongful birth—and so is not allowed. The reason for this is both simple and profound: courts are 'unwilling to say that life, even life with severe impairments, may ever amount to a legal injury." *Id.* at *2 (citing Atlanta Obstetrics & Gynecology Grp. v. Abelson, 398 S.E.2d 557, 561 (Ga. 1990)). Subsequently, the same set of facts was brought before the Georgia courts in *Norman v. Xytex*, and the claim was recalibrated as being brought under wrongful birth parameters without including wrongful life language, as Judge McBurney, who also decided the Collins case, now recognizes that "careful use of terminology is essential." Order on Defendant's Motion to Dismiss at 2, Norman v. Xytex, No. 2017CV298536 (Sup. Ct. Fulton Cty. Ga. 2017). *See generally* Billauer, *Re-Birthing, supra* note 11.

^{131.} See Turpin v. Sortini, 643 P.2d 954, 955 (Cal. 1982); see also Alan J. Belsky, *Injury* As a Matter of Law: Is This the Answer to the Wrongful Life Dilemma?, 22 U. BALT. L. REV. 185, 187 (1993).

Washington.¹³⁷ Citing moralistic/public policy concerns,¹³⁸ courts deem the wrongful life claim societally abhorrent.¹³⁹ Some courts say there is no separate tort for wrongful life;¹⁴⁰ rather, wrongful life is a descriptor of damages traditionally sought in the context of negligence claims.¹⁴¹ Thus, notwith-standing contortive efforts to make it work, e.g., calling the claim "products liability,"¹⁴² it is generally not countenanced,¹⁴³ being inconsistent with judicial views¹⁴⁴ of normative conduct (i.e., that any life, even one with disabil-ity,¹⁴⁵ is better than no life¹⁴⁶).

Recovery in wrongful birth claims, while generally allowed, for the most part is limited.¹⁴⁷ Recoverable damages usually adhere to economic damages occasioned to the parents by the pregnancy and birth itself¹⁴⁸ (assuming the harm is timely discovered)¹⁴⁹ for peri-pregnancy-related physical harm, sometimes including emotional distress,¹⁵⁰ for child-rearing—but generally only for an unhealthy child.¹⁵¹ Related claims sound in bailment for a prospective parent's property damage claim for lost/damaged genetic mate-

138. "Because wrongful life claims force courts to weigh the value of being versus nonbeing, courts have been reluctant to recognize this cause of action." Hester v. Dwivedi, 733 N.E. 2d 1161, 1164 (Ohio 2000).

139. In *Cockrum v. Baumgartner*, 447 N.E.2d 385, 388 (Ill. 1983), the court expressed an "unwillingness to hold that the birth of a normal healthy child can be judged to be an injury to the parents," because such a notion "offends fundamental values attached to human life."

140. D.D. v. Idant Labs., 374 Fed. App'x, 319 (3d Cir. 2010), *aff'g* Donovan v. Idant Labs., 625 F. Supp. 2d 256 (E.D. Pa. 2009).

141. As did the court in D.D. v. Idant Labs (the Donovan appeal). Id. at 324.

142. Lubowitz v. Albert Einstein Med. Ctr., N. Div., 623 A.2d 3, 4–5 (Pa. Super. Ct. 1993) (dismissing a suit over alleged contamination of embryos with AIDS through positive-tested placental blood used in IVF).

143. Slawek v. Stroh, 215 N.W.2d 9 (Wis. 1974) (where the court refused to recognize a cause of action for wrongful birth or wrongful life). In *Slawek*, the infant-plaintiff was born a normal child, although illegitimate. She sued her putative father for embarrassment, humiliation, and lack of social standing she would endure—and lost.

144. Zelt v. Xytex, No. 1:17-CV-4851-TWT, 2018 WL 1014627 at *7 (N.D. Ga. Feb. 22, 2018); Norman v. Xytex, No. 2017CV298536 (Sup. Ct. Fulton Cty. Ga. 2018).

145. Donovan, 625 F. Supp. 2d at 272.

146. Becker v. Schwartz, 386 N.E.2d 807, 811 (N.Y. 1978).

147. Emerson v. Magandanz, 689 A.2d 409 (R.I. 1997) (but see *Becker*, 386 N.E.2d at 809, for distinction regarding recovery for wrongful conception and wrongful birth cases). See also Kathleen Mahoney, Note, *Malpractice Claims Resulting from Negligent Preconception Genetic Testing: Do These Claims Present a Strain of Wrongful Birth or Wrongful Conception, and Does the Categorization Even Matter?*, 39 SUFFOLK U. L. REV. 773 (2016); See also Billauer, *Re-Birthing, supra* note 11.

148. See, e.g., Greco v. United States, 893 P.2d 345 (Nev. 1995).

149. See Donovan, 625 F. Supp. 2d at 266–268.

150. Emerson v. Magandanz, 689 A.2d 409 (R.I. 1997).

151. Id.

^{137.} See Wuth v. Lab. Corp. of Am., 359 P.3d 841, 852–55 (Wash. Ct. App. 2015) (discussing damages resulting from a doctor's failure to diagnose chromosomal translocation in IVF embryos).

rial.¹⁵² None of these awards are sufficiently onerous to perform a deterrence function¹⁵³ which requires repeated levies of damages that would be deemed "punitive."¹⁵⁴ And none, according to at least one commentator,¹⁵⁵ are sufficient to compensate sperm bank victims for far-reaching emotional harms¹⁵⁶ which generally are not covered under negligence¹⁵⁷ unless accompanied by a physical harm¹⁵⁸ or if the claimants fall under a prescribed zone of danger.¹⁵⁹ That means the mother (or parent(s)) cannot sue for the emotional angst of raising a child with a disability or for raising an unwanted child, and the child, who cannot sue for his or her own pain and suffering,¹⁶⁰can neither sue for emotional disturbances related thereto.

The underlying fabric of the current state of the law, as discussed above, derived from cases sounding in medical malpractice where the wrong was occasioned by a physician or other medical personnel. The holdings, however, continued to be applied, almost robotically perhaps, when harm was occasioned by a profit-generating sperm bank. While superficially the resultant injuries might seem similar, they can differ both qualitatively and quantitatively (i.e., regarding the number of persons affected), as we shall see. The consequent inequitable results (discussed below) call into question the propriety of utilizing malpractice-generated holdings in cases involving newer reproductive technologies such as sperm banks and IVF facilities.

- 153. See Rheingold, supra note 126, at 143.
- 154. *Greco*, 893 P.2d at 345.
- 155. See Fox, supra note 16.

156. See, e.g., Rice v. Veleanu, 227 A.D.2d 607 (N.Y. App. Div. 1996) (citing Howard v. Lecher, 366 N.E.2d 64 (N.Y. 1977)) (denying recovery to parents for the emotional disturbance they suffered watching their infant die from Tay-Sachs disease which could have been detected with appropriate tests); see also O'Toole v. Greenberg, 477 N.E.2d 445 (N.Y. 1985).

157. O'Toole, 477 N.E.2d at 448; Fox, *supra* note 16, at 154; *see also* Deirdre A. McDonnell, *Increased Risk of Disease Damages: Proportional Recovery as an Alternative to the All or Nothing System Exemplified by Asbestos Cases*, 24 ENVTL. AFF. 623, 624 (1997).

158. See generally Aaron Twerski & Jim Henderson, Asbestos Litigation Gone Mad: Exposure-Based Recovery for Increased Risk, Mental Distress, and Medical Monitoring, 53 S.C. L. REV. 814, 828 (2002); see also McDonnell, supra note 157, at 624.

159. Twerski & Henderson, supra note 158, at 824-25.

160. Duffey v. Fear, 121 A.D.2d 928, 928–930 (N.Y. App. Div. 1986); see also Alquijay v. St. Luke's-Roosevelt Hosp. Ctr., 473 N.E.2d 244, 244 (N.Y. 1984); Zepeda v. Zepeda, 190 N.E.2d 849 (III. App. Ct. 1963), cert. denied, 379 U.S. 945 (1964) (the first recorded wrong-ful life case); see generally Tatiana E. Posada, Whose Sperm Is It Anyways In the Wild, Wild West of The Fertility Industry?, 34 GA. ST. U. L. REV. 847 (2018); see especially Barbara Pfeffer Billauer, Wrongful Life in the Age of Crispr-Cas, 142 PENN ST. L. REV. forthcoming (Winter 2020).

^{152.} See Yearworth v. N. Bristol NHS Trust, [2009] EWCA (Civ) 37.

An illustrative review of cases involving sperm bank malfeab. sance

The first case against a sperm bank seeking recovery for the child's pain and suffering was Johnson v. Superior Ct.¹⁶¹ where Brittany Johnson claimed damages for her inheritance of Autosomal Dominant Polycystic Kidney Disease from an anonymous sperm donor under theories of negligence and breach of contract. Notwithstanding consensual contractual protection of the sperm donor's identity, the court required its disclosure. But, when it came to awarding damages, the court ruled that the claims constituted "wrongful life" and were not recognized.

The second case, Paretta v. Medical Offices for Human Reproduction,¹⁶² was brought a year later in New York. Here, claims were brought for malpractice, fraud, and negligence. Punitive damages were also claimed. The anonymous supplier carried the gene for cystic fibrosis, which was apparently known to the reproduction center but not disclosed to the parents.¹⁶³ Neither was the father tested for the disease, a critical factor, since both parents must be carriers for the disease to manifest in the offspring. Indeed, the double donation of genetic material carrying the cystic fibrosis gene resulted in a child being born with the disease. But the court determined the child did not have the right to sue for wrongful life-even in the presence of demonstrable acts of medical negligence-because such a case would grant the IVF child rights not possessed by naturally born children. The court did, however, leave some claims open and allowed the case to proceed. Because of that ruling, coupled with fear of punitive damages, the case settled for a whopping 1.3 million dollars.¹⁶⁴

The third case, Donovan v. Idant Laboratories,¹⁶⁵ was also occasioned by an anonymous sperm supplier and resulted in a child born with the genetically transmitted Fragile X syndrome. Here, the court shut the door on disclosure of the sperm supplier's identity (on bioethics and privacy grounds), challenging the parents to prove the causal relationship between the supplier's sperm and the child's Fragile X syndrome. Efforts by the sperm bank to assuage the parents' suspicion by supplying expert reports falsely claiming no causal connection-actions countenanced by the court-resulted in the statute of limitations being breached, ultimately causing the mother to lose

^{161.} Johnson v. Super. Ct. L.A. Cty., 95 Cal. Rptr. 2d 864, 867 (Cal. Dist. Ct. 2000).

^{162.} Paretta v. Med. Offices for Human Reprod., 760 N.Y.S.2d 639, 641-642 (N.Y. Sup. Ct. 2003).

^{163.} At least one similar case, which did not result in suit, occurred in 2012, suggesting there may be many more such cases of which the legal community is unaware. See Jacqueline Mroz, Sheer Number of Inheritor Kids Up Genetic Risk, DENVER POST, May 15, 2002, at 1A. 164. Heled, supra, note 38, at 266.

^{165.} Donovan v. Idant Labs, 625 F. Supp. 2d 256, 274 (E.D. Pa. 2009).

her cause of action for wrongful birth as time-barred. The child's Fragile X syndrome was eventually traced to the genetic input from the sperm supplier, but her claim was similarly dismissed. In fact, nine causes of action were raised, and they were all rejected. While the court ruled that sperm is a product and hence initial elements of a products liability claim were pleaded, it nonetheless ruled the damages sounded in wrongful life, which is not recognized by New York.¹⁶⁶

The fourth case, *Collins v. Xytex*,¹⁶⁷ sought damages which were described by the court in language reminiscent of wrongful life claims, but called wrongful birth, for, *inter alia*, the child's increased risk of developing schizophrenia. It, too, was occasioned by an anonymous sperm supplier and was the harbinger of more than a dozen lawsuits (hereinafter referred to as the *Xytex* Saga). With one exception, these children have not yet manifested a diagnosable disease¹⁶⁸ but are at risk and the mothers are apprehensive. All but one case was dismissed as being claims for wrongful birth. I return to the *Xytex* Saga as a case study of sperm-banks-done-wrong in Part IV.

III. GREATER AND LESSER HARMS: FRAMING A HARM-DRIVEN APPROACH

In this section, rather than focusing on the causal act or its consequences to conceptualize injury, the traditional negligence approach, I propose focusing on the harm caused and assessing it according to its gravity and magnitude. This perspective derives from a public-health-oriented approach which concentrates on prevention.¹⁶⁹ Incorporating the tort-based objective of deterrence with this rubric, rather than the traditional focus of punitive or restorative justice, also provides a remedy that has heretofore been lacking.

A. Novel Frames and New Claims

Numerous (and futile) attempts have been made to address the legal lacuna resulting from rejection of the wrongful life claim, including invoking

^{166.} Id. at 275; D.D. v. Idant Labs., 374 Fed. App'x. 319, 324 (3d Cir. 2010); see infra notes 162-64.

^{167.} Collins v. Xytex Corp., No. 2015CV259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015). *See also supra* note 130 and accompanying text.

^{168.} Apparently, some children do manifest emotional difficulties—although, at present, have not been diagnosed with an actual medical or psychological condition.

^{169.} The "gravity" of harm rubric is first noted in the case of *Carroll v. United States*, 267 U.S. 132 (1925) as it affects an individual; magnitude of harm is a public health concept referring to the number of people in a population affected. *See* Chris Degeling, *Culling and the Common Good: Re-evaluating Harms and Benefits Under the One Health Paradigm*, 9 PUB. HEALTH ETHICS 244 (2016). *See also* Marcel Verweij, *Infectious Disease Control, in* PUBLIC HEALTH ETHICS: KEY CONCEPTS AND ISSUES IN POLICY AND PRACTICE (Angus Dawson ed., 2011).

the doctrine of strict liability in tort.¹⁷⁰ These claims fail for the very reason the negligence claims fail.¹⁷¹ While bypassing proof of breach of a standard of care, products liability claims¹⁷² still require proof of damages¹⁷³—and these damages are the very same ones rejected under the negligence theories of wrongful life or wrongful birth.¹⁷⁴

Other efforts have been made to address the void, and various intrepid courts, commentators, and stakeholders have tried to construct alternative remedies. These include the legal claims of loss of genetic identity (which is limited to switched sperm or oocytes in the context of a marital unit)¹⁷⁵ and criminal legislation, called "fertility fraud."¹⁷⁶ Additionally, the legal lacuna prompted Professor Dov Fox to craft an entirely new cause of action: reproductive negligence.¹⁷⁷ His system describes reproductive harm by conse-

173. Doherty v. Merck & Co., Inc., 154 A.3d 1202, 1206 (Me. 2017) (barring wrongful life applies not only to medical malpractice actions but to product liability suits as well); *see also* Norman v. Xytex, No. 2017CV298536 (Ga. 2018); Alex Stein, *Reproductive Negligence Under Maine Law*, BILL OF HEALTH (March 19, 2018), http://blog.petrieflom.law.harvard.edu /2018/03/19/reproductive-negligence-under-maine-law/.

175. Suresh Viswanath, An Analysis of Genetic Affinity as an Actionable Head of Damages—ACB v. Thomson Medical PTE LTD, 8 SING. L. REV. (2016/17).

^{170.} Francis Sohn, Products Liability and the Fertility Industry: Overcoming Some Problems in "Wrongful Life", 44 CORNELL INT'L L.J., 145, 171 (2009).

^{171. &}quot;As plaintiff has not alleged a legally cognizable injury, she has failed to state a claim for strict liability . . ." Donovan v. Idant Labs. 625 F. Supp. 2d. 256. 276 (E.D. Pa. 2009).

^{172.} Megan D. McIntyre, Comment: The Potential for Products Liability Actions When Artificial Insemination by an Anonymous Donor Produces Children with Genetic Defects, 98 DICK. L. REV. 519, 540–41 (1993); Dawn R. Swink & J. Brad Reich, Caveat Vendor: Potential Progeny, Paternity and Product Liability Online, 857 BYU L. REV. (2007); Anne-Marie Abarado, Donovan v. Idant Laboratories: Circumventing the Prohibition Against Wrongful Life Claims Through Strict Products Liability Claims, Health Law Perspectives, UNIV. OF HOUS. L. CTR., (Nov.13, 2009), http://www.law.uh.edu/healthlaw/perspectives/2009/(AA) %20Donovan.pdf; Jennifer Vagle, Putting the "Product" in Reproduction: The Viability of a Products Liability Action for Genetically Defective Sperm, 38 PEPP. L. REV. 1175 (2011).

^{174.} Collins v. Xytex Corp., No. 2015CV259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015).

^{176.} Ariana Eunjung Cha, Fertility Fraud: People Conceived Through Errors, Misdeeds in the Industry Are Pressing for Justice, WASH. POST (Nov. 22, 2018), https://www.washingtonpost.com/national/health-science/fertility-fraud-people-conceivedthrough-errors-misdeeds-in-the-industry-are-pressing-for-justice/2018/11/22/02550ab0-c81d-11e8-9b1c-a90f1daae309 story.html?utm term=.7f094333ce1a.

^{177. &}quot;Reproductive negligence inflicts a distinct and substantial injury . . . that goes beyond any bodily intrusion or emotional distress. The harm is being robbed of the ability to determine the conditions under which to procreate . . . [and] the wrongful frustration of reproductive plans disrupts personal and professional lives in predictable and dramatic ways. This puzzle—that the thwarting of reproductive plans, however egregious or devastating, invades no 'legally protected interest,' violates no right [and]—has gone all but unnoticed in the case law and the literature." *See* Fox, *supra* note 16, at 155–157; *see also* Dov Fox, *Mak*-

quence (although not severity):¹⁷⁸ *pregnancy imposed* (e.g., failed sterilization efforts or the failure of a medical professional to diagnose a condition in utero and inform/advise the parents, depriving them of the right of abortion); *pregnancy denied* (e.g., wrongful destruction of gametes); and *pregnancy confounded* (e.g., frustrating the desire to select for or against a child with particular genetic features).¹⁷⁹ Professor Fox's proposal has been amply dissected by no less than three legal academics,¹⁸⁰ and will not be addressed here. It is important, however, to echo Professor Fox's lament that emotional injury—often the signature harm of reproductive failures—goes uncompensated in the traditional systems of redress. This lacuna in legal redress that Professor Fox so clearly identifies must not be ignored.

New causes of action, however, are slow to gain traction (even if they are ultimately embraced), and a more immediate solution is required. Further, regarding Professor Fox's "pregnancy confounded" category, the state of genetic knowledge makes it impossible to screen for all genetically involved diseases, rendering a negligence claim too limited to fully address the panoply of greater harms (more fully discussed in Part IV). Framing the problem solely as the need to allow broader recovery (i.e., focusing only on restorative or compensatory justice) also overlooks possibilities for prevention or deterrence. Instead, I suggest that focusing on severity and magnitude of harm—a public health and public nuisance approach—allows for broader relief, including injunctions, but also enlarges the class of plaintiffs as well as providing for deterrence.

Most sperm bank errors¹⁸¹ (as opposed to physician-induced reproductive harms) occur as a result of a failure to comply with standard protocol and internal procedures.¹⁸² These manifest in three forms: 1) destruction (or loss) of gametes (eggs, sperm or embryos); 2) "contamination with cellular

ing Things Right When Reproductive Medicine Goes Wrong: Reply to Robert Rabin, Carol Sanger, and Gregory Keating, 118 COLUM. L. REV. ONLINE, 94, 94–117 (2018).

^{178.} Professor Fox apparently comes to realize that his initial consolidation of claims into one overriding conglomerate is unworkable. *Id.* at 100–101; *see also* Robert L. Rabin, *Dov Fox on Reproductive Negligence: A Commentary*, 117 COLUM. L. REV. ONLINE 228 (2017).

^{179.} When procreation is confounded in ways that frustrate plans for a child of a particular type, courts typically deny redress fearing validating parents' disparagement of their child's life. *See e.g.*, Doe v. Irvine Sci. Sales Co., 7 F. Supp. 2d 737, 743 (E.D. Va. 1998) (finding plaintiffs who had their in vitro procedures contaminated could not establish a physical injury and the economic-loss rule barred their claims for recovery).

^{180.} See Carol Sanger, The Lopsided Harms of Reproductive Negligence, 118 COLUM. L. REV. ONLINE 29 (2017); Gregory C. Keating, Response to Fox: Impaired Conditions, Frustrated Expectations and the Law of Torts, 117 COLUM. L. REV. ONLINE 212 (2017); Rabin, supra note 178.

^{181.} See supra notes 62-65 and accompanying text.

^{182.} IVF Blunders, supra note 93.

debris," meaning the wrong sperm was used;¹⁸³ and 3) switched embryos.¹⁸⁴ These harms generally affect individuals, with the third possibly contributing a small societal impact. Here, I focus on a fourth type of harm, one which significantly affects society as well as the individuals and which I call a "greater" harm.¹⁸⁵ This fourth category of greater harms introduces inherited diseases into the population at rates above the background level by creating genetically impaired children.

I begin the inquiry in Section B by setting out the criteria to delineate greater and lesser harms. In Section C, I identify three practices that lead to this greater harm and, hence, are ripe for targeted regulation: anonymous sperm supply, the failure to properly screen (or test) sperm suppliers, and multiple (unlimited) inseminations. The dire situation that occurs when all three practices are utilized in concert is examined in Part IV.

B. Criteria for Delineation as Greater or Lesser Harms

To delineate harms as "lesser" or "greater," the following framework is suggested: in a nutshell, "lesser" harms affect the parent and also the child, while "greater" harms affect the parent, the child, and society at large. Lesser harms can be addressed under existing theories of law. Claims where improper diagnoses or tests prevent parents from aborting a child¹⁸⁶ or physician actions which frustrate the desire to avoid having children (what I call "Category I" harm) can be addressed under the traditional rubric of medical malpractice (or wrongful conception).¹⁸⁷ Next are cases where genetic mate-

^{183.} *See*, *e.g.*, Cramblett v. Midwest Sperm Bank, LLC, 230 F. Supp. 3d 865 (N.D. Ill. 2017); ACB v. Thomson Medical PTE Ltd, [2017] SGCA 20, (Ct. App. Sing., Mar. 22, 2017) Civil Appeal No. 17 of 2015.

^{184.} See supra notes 69–74 and accompanying text; see also Jonathan Turley, English Couple Sues After Their Last Embryo is Implanted in the Wrong Woman, JONATHAN TURLEY (June 15, 2009), https://jonathanturley.org/2009/06/15/english-couple-sues-after-their-last-embryo-is-implanted-in-wrong-woman/; Embryo Mix-up Parents to Speak Out, BBC NEWS (June 15, 2009), http://news.bbc.co.uk/2/hi/uk news/wales/8098553.stm.

^{185.} See infra Part IV.

^{186.} Where a child born with a disease would have been aborted had the parents known of the disease pre-birth, that child might have a wrongful life claim although it would be inappropriate to say the child was causally injured, as can be said about the child born of via sperm bank involvement or IVF. This scenario suggests that abrogating wrongful life in the entirety is unfair, and that it should be resurrected with broader tentacles or a looser definition in the IVF or sperm bank context.

^{187.} Thus, in Georgia, "wrongful conception" mimics some types of wrongful birth cases and is allowed, but wrongful birth is not. Zelt v. Xytex Corp., No. 1:17-CV-4851-TWT, 2018 WL 1014627, at *2 (N.D. Ga. Feb. 22, 2018), *aff'd*, 766 F. App'x 735 (11th Cir. 2019). The claims raised in *Collins v. Xytex*, which more closely resembled wrongful life, somehow morphed into a strict wrongful life claim in its various iterations. *See also* Norman v. Xytex, No. 2017CV298536 (Sup. Ct. Fulton Cty. Ga. 2017).

rial (considered property) goes astray, is lost, or destroyed—a "Category II" type harm, which can be considered violation of property rights or bailment. Another stratum ("Category III" harm) occurs where the wrong sperm is implanted. This can infringe on a patient's autonomy, violates informed consent, and theoretically could be addressed under consumer fraud or misrepresentation. These injuries (what Professor Fox might call pregnancy imposed or pregnancy denied) would all be considered to be lesser harms, although they may be of varying degree. A more severe Category III harm occurs when the wrong *embryo* is implanted, leading to custody battles which tax the court system.¹⁸⁸ A "Category IV" harm, which I refer to as a "greater" harm, occurs where the acts of the sperm bank create genetic anomalies in the resultant child. Here, the child, parent, and society all suffer. The remainder of this article focuses on Category IV or greater harms, illustrated by the *Xytex* Saga and discussed in greater detail in Part IV.

C. Sperm Bank Practices Fostering the Greater Harms

1. Anonymity

Historically, all donor insemination was anonymous, as physicians encouraged married couples using donor insemination to pretend their children were biologically related to their husbands.¹⁸⁹ Discussing the full array of consequences of anonymity¹⁹⁰ goes beyond the scope of this article;¹⁹¹ the key point here is that not knowing the father's identity increases the likelihood of unwitting incest.¹⁹² Perhaps since the notion is so gut-wrenchingly troubling, policy enactments attempt to prevent it. But besides what bioethicist Arthur Caplan calls the "yuck factor,"¹⁹³ solid biological reasons exist to prevent consanguinity,¹⁹⁴ including increased risk of disease¹⁹⁵ and increases

192. See Proposed Israeli Sperm Bank Bill, supra note 115.

^{188.} See Karla Holloway, Private Bodies, Public Texts 54-58, 181-219 (2011).

^{189.} KIM TOEVES & STEPHANIE BRILL, THE ESSENTIAL GUIDE TO LESBIAN CONCEPTION, PREGNANCY AND BIRTH 129–45 (2002); see also SPAR, supra note 54, at 22.

^{190.} For example, anonymity deprives offspring of their right to a genetic (biological) identity. *See* CASEBOOK ON BIOETHICS FOR JUDGES 129 (Amnon Carmi & Barbara P. Billauer eds., 2016).

^{191.} A large body of literature exists on the topic of the consequences of anonymity. See, e.g., Pamela Laufer-Ukeles, *The Lost Children: When the Right to Children Conflicts with the Rights of Children*, 8 L. & ETHICS HUM. RTS. 1 (2014); see also Grady, supra note 60.

^{193.} See generally Charles W. Schmidt, *The Yuck Factor: When Disgust Meets Discovery*, ENVTL. HEALTH PERSP. 12, A524–A527 (2008).

^{194.} Raja M. Afzal et al., *The Impact of Consanguinity on the Frequency of Inborn Errors of Metabolism*, 15 MOLECULAR GENETICS METABOLISM REP. 1, 8–10 (2018).

^{195.} See Lutfi Jaber et al., *The Impact of Consanguinity Worldwide* 1 COMMUNITY GENETICS 13, 14 (1998) ("Several studies have shown that the rate of congenital malformations . . . is approximately 2.5 times higher than that among the offspring of unrelated

in sterility, stillbirths, perinatal losses, and neonatal deaths.¹⁹⁶ The increased associated health costs¹⁹⁷ prompt society to minimize such liaisons to lower population health costs.

Proponents of anonymity champion its use because it protects fathers from child support claims (which is probably a specious notion since statutes should protect donors from such claims).¹⁹⁸ Others claim that when young, an unmarried sperm supplier needing money may volunteer his sperm without thought of the future. Years later, the sperm supplier, now perhaps a successful politician, might fear embarrassing contact with his genetic children and assert that the ennobling "donation" of his youth should not be used as fodder against him.¹⁹⁹ Anonymity is also championed by those who fear that disclosure would limit semen supply, a "right" loudly defended by sperm bank operators who roundly protest attempts to revoke it,²⁰⁰ even in the face of stakeholders (children of anonymous suppliers) desperately seeking a genetic identity²⁰¹—if only to learn of disease risk.

In actuality, the practice of anonymity may increase sperm availability—illustrated by the abrupt falloff in sperm supply in Canada when anonymity was abolished.²⁰² But the trade-offs are disastrous: all reported wrongful life/birth cases against sperm banks in the United States arose in the context of anonymous sperm donors.²⁰³

Perhaps the most dangerous aspect of anonymous suppliers is that it encourages faulty responses on donor questionnaires. As the putative donor becomes effectively *sui generis* if his identity cannot be disclosed, he can get away with fraudulent responses—most significantly to questions about medical history and educational background. Since, as we have seen (and will see), financial remuneration for the supplier is often contingent on the quality of the questionnaire responses, although not necessarily the quality of his sperm, there is motivation to be less than candid.

parents"); but see Alan H. Bittles, Assessing the Influence of Consanguinity on Congenital Heart Disease, 4 ANNALS PEDIATRIC CARDIOLOGY 2, 11 (2011) (suggesting that the assumption that consanguinity increases risk of certain types of heart disease may be flawed).

^{196.} Jaber et al., *supra* note 195, at 14.

^{197.} *Id.* at 15.

^{198.} Although instances have occurred where the sperm supplier was charged with child support, notwithstanding both private agreements and statutory authority which should have prevented it. *See* DAAR, *supra* note 48.

^{199.} CAHN, supra note 2, at 220-226.

^{200.} Held at the Netanya Academic College in Netanya, Israel, in conjunction with AYALA (the Israeli Reproduction Society) on Feb. 20, 2018.

^{201.} Margaret K. Nelson et al., Gamete Donor Anonymity and Limits on Numbers of Offspring: The Views of Three Stakeholders, J. L. & BIOSCIENCES (Apr. 2016).

^{202.} CAHN, *supra* note 2, at 228. In fact, there are only three registered sperm providers in Canada, and Canadian women are forced to go to the United States or seek sperm elsewhere. *See* CAHN, *supra* 2, at 228 (opining that the Canadian situation is an anomaly).

^{203.} At least as far as I can determine.

While enlightened countries in the EU now prevent anonymous donations (Britain allows disclosure after a child is eighteen),²⁰⁴ the practice continues in countries such as the United States and Denmark (coincidentally the world's largest sperm exporters), although for an additional fee, consumers can now procure "open" disclosure sperm from some U.S. suppliers.²⁰⁵

2. Unlimited Sperm "Donations"

As noted, recommendations and advisories exist in many places to limit sperm donations and legislation exists in others, but enforcement is poor and abuses are horrific. For starters, there is the American mathematics professor who is banned from fathering children in Israel because he was too prolific (at thirty-three children with ten more on the way),²⁰⁶ two American physicians fathering fifty²⁰⁷ and seventy-five²⁰⁸ children respectively (the latter convicted of fifty-two counts of fraud), and a California "gentleman" fathering 150 children.²⁰⁹ The American experiences are far from unique.

206. Caron Creighton, US Serial Sperm Donor Banned from Donating in Israel, ASSOCIATED PRESS (June 19, 2018), https://www.usnews.com/news/world/articles/2018-06-18/us-serial-sperm-donor-banned-from-donating-in-israel; see also Why Won't Israel Allow Women to Use Sperm from Serial Donor Ari Nagel? Its Supreme Court Wants to Know, JEWISH TELEGRAPH AGENCY (Oct 18, 2018), https://www.jta.org/2018/10/08/israel/wontisrael-allow-women-use-sperm-serial-donor-ari-nagel-supreme-court-wants-know ("Israel's Supreme Court has ordered the country's Health Ministry to explain why it will not allow an Israeli woman to undergo in vitro fertilization using the sperm of a Jewish Brooklyn mathematics professor.").

207. Susan Scutti, Indiana Fertility Doctor Used His Own Sperm 'Around 50 Times,' Papers Say, CNN (Sept. 27, 2016), https://www.cnn.com/2016/09/13/health/fertility-doctor-impregnate-patients/index.html; Mihir Zaveri, A Fertility Doctor Used His Sperm on Unwitting Women. Their Children Want Answers, N.Y. TIMES (Aug. 30, 2018), https://www.nytimes.com/2018/08/30/us/fertility-doctor-pregnant-women.html.

208. Marlene Cimons, *Too Many Daves: Fertility Doctor's Case Raises Ethical Concerns*, L.A. TIMES (Feb 13, 1992), https://www.latimes.com/archives/la-xpm-1992-02-13-mn-3023-story.html; *Doctor Is Found Guilty in Fertility Case*, N.Y. TIMES (Mar. 5, 1992) https://www.nytimes.com/1992/03/05/us/doctor-is-found-guilty-in-fertility-case.html; *see also* Marlene Cimons, *Fertility Doctor's Case Raises Ethical Concerns: Health: Physician's Secret Use of His Own Sperm Violates His Patients' Privacy, Experts Say*, L.A. TIMES (Feb. 13, 1992), https://www.latimes.com/archives/la-xpm-1992-02-13-mn-3023-story.html.

209. Jacqueline Mroz, One Sperm Donor, 150 Offspring, N.Y. TIMES (Sept. 5, 2011), https://www.nytimes.com/2011/09/06/health/06donor.html; cf. Elizabeth Payne, Lawsuit

^{204.} HUMAN FERTILISATION AND EMBRYOLOGY AUTH., RULES AROUND RELEASING DONOR INFORMATION, https://www.hfea.gov.uk/donation/donors/rules-around-releasing-donor-information/ (last visited September 17, 2019).

^{205.} See Donor Options, XYTEX, https://www.xytex.com/patient-information/donoroptions/ (last visited September 29, 2019). The website provides that as of August 2018, the company no longer will accept donors who wish to remain fully anonymous. Perhaps in response to the recent spate cases against it.

One report indicated that a British supplier fathered more than sixty-five children.²¹⁰ Additionally, two British men are said to have fathered six hundred children each²¹¹ and a third reportedly sired eight hundred children (!).²¹² Most recently, *BioEdge* reported that a Dutch man may have fathered one thousand children, donating regularly at three sperm clinics for some twenty years with some of his sperm exported to other European countries.²¹³

When the practice of unlimited sperm donations is coupled with anonymity, the likelihood of incest increases. Ten years ago, Lord David Alton cited a case of incest between fraternal twins separated at birth, remarking that "this isn't a regular occurrence, but it could become one with large numbers of people now being born by IVF and not knowing their true identities."²¹⁴

3. Inadequate Screening/Testing/Vetting for Genetic Diseases

Perhaps more worrisome than the risk of incest²¹⁵ are actual instances of genetically transmitted disease which occur when sperm banks do not properly vet the suppliers, fail to verify their application responses, or fail to take an appropriate medical history. But even more serious than the single

Against Fertility Doctor Accused of Using Own Sperm Expands to 150 People 'Adversely Affected', OTTAWA CITIZEN (Apr. 6, 2018), https://ottawacitizen.com/news/local-news/lawsuit-against-fertility-doctor-accused-of-using-own-sperm-expands-to-150-people-

adversely-affected (reporting on Dr. Norman Barwin, a fertility doctor accused of using own sperm to father 150 children).

^{210.} Alex Green, Fatheroo! Married Man Who Travels UK Offering Door-to-Door Sperm Delivery Service from a White Van . . . Has 65 Children and Hopes to Reach 100, DAILY MAIL (May 22, 2018), https://www.dailymail.co.uk/news/article-5755681/Married-man-offers-door-door-sperm-delivery-service-65-children-hopes-reach-100.htm.

^{211.} Crocker, *supra* note 121 ("Simon Watson, 41, has been dishing out his semen for 16 years and sells bottles of 'magic potion' for £50 online. He now sells his sperm on Facebook and has raked in at least £40,000 for his efforts."); *see also* Smith, *supra* note 120 ("A British fertility doctor may have fathered 600 children by repeatedly using his own sperm in a fertility clinic he ran.").

^{212.} Linda Wiilaars, Unlicensed Sperm Donor Claims to Have Fathered 800 Children, BIONEWS (Jan. 18, 2016), https://www.bionews.org.uk/page_95350; see also Natalie Morton & Sarah Bell, I Fathered 800 Children, Claims Sperm Donor, BBC NEWS (Jan. 13, 2016), https://www.bbc.com/news/health-35262535; see also Crocker, supra note 121 ("A man thought to be Britain's most prolific sperm donor has fathered a unbelievable 800 children after selling his semen for £50 a go.").

^{213.} Michael Cook, *Dutch Man May Have Fathered 1000 Children*, BIOEDGE (Oct. 6, 2018), https://www.bioedge.org/bioethics/dutch-man-may-have-fathered-1000-children/12844.

^{214.} See Unwitting Incest a 'Tragedy', SYDNEY MORNING HERALD (Jan. 12, 2008), https://www.smh.com.au/world/unwitting-incest-a-tragedy-20080112-gdrwkn.html.

^{215.} See Bittles, supra note 195.

transfer of genetic disease are instances where the supplier, a carrier of genetic disease, fathers more than one child. Such multiple instances of genetic disease transfer can happen even if the sperm supplier or bank has no reason to know of the likelihood of a compromised genetic medical history. Several such instances have not resulted in lawsuits and hence remain under the legal (and to a certain extent public health) radar.²¹⁶ Thus, in 2006, the *Journal of Pediatrics* reported a case of five of the eleven children sired by an anonymous supplier from a Michigan sperm bank inheriting a serious blood disease that leaves them at risk for leukemia.²¹⁷ In 2009, the *Journal of the American Medical Association* reported an apparently healthy twenty-three-year-old donor with no known genetic or infectious diseases who passed on a genetic heart condition to at least eight of his twenty-two offspring; one died from heart failure as a toddler.²¹⁸ One donor in the Netherlands who fathered eighteen children was later found to have a serious neurological disease that his offspring have a 50/50 chance of inheriting.²¹⁹

The sad results of the joint practice of anonymity and inadequate screening were the subject of the *Xytex* cases referenced earlier and described below.²²⁰ In Part IV we will explore in greater depth these dire consequences which occur when the failure to properly screen the applicant is combined with anonymity and multiple impregnations.

IV. SETTING THE STAGE FOR NUISANCE CLAIMS AGAINST SPERM BANKS

In Section A, I set the stage for use of public nuisance for greater harms generated by sperm banks. I begin with a case study of four cases. In Section B, I discuss the medical issues (diseases) which are personal harms. In Section C, I discuss the population level ramifications of genetic aspects of the diseases, and in Section D, I detail population costs.

^{216.} Jennifer Wolff Perrine, *The Truth About Donor 1084*, SELF (Oct. 23, 2006), https://www.self.com/story/sperm-banks-hide-evidence (describing a supplier from Fairfax Cryobank who transmitted asthma and severe eczema to four offspring, such that their skin "peeled off like an onion.").

^{217.} See Laurence A. Boxer et al., Strong Evidence for Autosomal Dominant Inheritance of Severe Congenital Neutropenia Associated With ELA2 Mutations, 148 J. PEDIATRICS, 633–36 (2006); Grady, supra note 60.

^{218.} Maron, supra note 29 at 1681.

^{219.} Grady, *supra* note 60. And as we go to press, a report of at least a dozen autistic children born of sperm from donor H898 was reported. *See* Ariana Eunjung Cha, *The Children or Donor H898*, WASH. POST (Sept. 14, 2019), https://www.washingtonpost.com/health/the-children-of-donor-h898/2019/09/14/dcc191d8-86da-11e9-a491-25df61c78dc4 story.html.

^{220.} See supra note 167 and accompanying text.

A. The Xytex Quartet: A Case Study

A dozen or more cases have been brought against the Xytex Corporation, not only in Georgia where Xytex is headquartered, but also in Canada, California, and Florida. I focus on four seminal cases, which I call the "*Xytex* Quartet." All but one case was dismissed; the last is on appeal.²²¹ The single case which was not dismissed²²² generated multiple settlements, as apparently Xytex feared the punitive wrath of a jury.

The decisions sequentially release more and more sordid details of Xytex's practices, unravelling the soap-opera-like story²²³ of "Donor" 9623.²²⁴ Peeling off the layers of Xytex's conduct should put us all on alert, as there is no reason to think that Xytex alone, among the five hundred or so existing sperm banks,²²⁵ employs the practices that occasioned the harms to the children of Donor 9623.²²⁶ Further, other than removing certain advertisements from the web and establishing a new category of (more expensive) donorsuppliers, where the supplier relinquishes absolute anonymity,²²⁷ we have no assurance Xytex has revamped its screening and marketing practices.

1. Collins v. Xytex

The saga begins with *Collins v. Xytex Corp.*²²⁸ After enactment of the 2004 Canadian Assisted Human Reproduction Act which criminalized payment for sperm suppliers, a sperm shortage ensued²²⁹ and "Canadians seeking sperm [were] . . . largely at the mercy of foreign markets, primarily the

^{221.} Norman v. Xytex Corp., 830 S.E.2d 267, 268 (Ga. App. 2019) (pet. for writ of certiorari filed in Ga. Sup. Ct., July 11, 2019).

^{222.} See infra note 250 and accompanying text.

^{223.} TV and film portray sperm bank errors as either juicy morsels of comedy (Delivery Man) or tragedy. *See also* Aaron Foley, *The Unsung Legacy of Black Characters on Soap Operas*, ATLANTIC (Mar. 31, 2015), https://www.theatlantic.com/entertainment/archive/2015/03/soap-operas-the-forgotten-birthplace-of-complex-black-characters-on-tv/388907/.

^{224.} I put "donor" in quotes because after all, he isn't really donating.

^{225.} See John K. Critser, *Current Status of Semen Banking in the USA*, 13 HUM. REPROD. 55, 57 (1998) (indicating that if all IVF facilities were included in the count, the number might reach more than 800).

^{226.} Indeed, in an analog of the *Xytex* Saga, an autistic supplier of California Cryobank, Donor 3099, produced seven children, of which four have either autism or autism-related disorders. *See* Kim Nguyen, *Mothers Who Used Same Sperm Donor Meet*, LAWRENCE JOURNAL-WORLD (Aug. 11, 2006), https://www2.ljworld.com/news/2006/aug/12/mothers_who_used_same_sperm_donor_meet/.

^{227.} *Pricing*, XYTEX CRYO INT'L, https://www.xytex.com/patient-information/pricing/ (last visited July 25, 2019) (charging more expensive rates for patients to obtain premium access to the company's enhanced donor profiles to select their sperm donor).

^{228.} Final Order Granting Defendants' Motion to Dismiss, Collins et al. v. Xytex Corp. et al., No. 2015-cv-259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015).

^{229.} But see CAHN, supra note 2.

U.S.²³⁰ Unable to procure sperm in their native Canada, Angela Collins and her partner²³¹ sought sperm from an American company, the Xytex Corporation of Georgia.²³² Collins selected Xytex "because of its large, reportedly high-quality donor selection²³³ and claims of rigorous screening."²³⁴ In fact, Xytex's website boasted: "You can rest easy knowing right up front [that] every Xytex donor ranks in the top 1% of the population in health and wellness."²³⁵ Relying on these assertions,²³⁶ Ms. Collins selected the characteristics of the male genetic component of her hoped-for child. Like many women, Ms. Collins had several specifications in mind. Among them was high intelligence.

Based on his profile, Ms. Collins chose the sperm of Donor 9623. His profile, according to an archived copy located by an investigative journalist,²³⁷ stated he had an IQ of 160²³⁸ (ostensibly the same as Albert Einstein and Stephen Hawking), bachelor's and master's degrees in neuroscience, and was pursuing a Ph.D. He was advertised as an internationally acclaimed drummer²³⁹ who spoke five languages and was an avid reader whose research interests included artificial intelligence. The profile also included a six-page health questionnaire in which Donor 9623 specifically denied schizophrenia or significant medical history. After selection, his sperm was shipped from Xytex's Atlanta office to Ontario where Collins was inseminated. She gave birth in July 2007.²⁴⁰

235. Id.

239. Id.

240. Boyle, *supra* note 230; *see also* Collins et al. v. Xytex Corp. et al., No. 2015-cv-259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015); *see also* Posada, *supra* note 160.

^{230.} See Theresa Boyle, Sperm-Donor Shock Spurs Port Hope Couple's Lawsuit, STAR (Apr. 6, 2015), https://www.thestar.com/life/health_wellness/2015/04/06/sperm-donor-shock-spurs-port-hope-couples-lawsuit.html.

^{231.} Collins et al. v. Xytex Corp. et al., No. 2015-cv-259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015).

^{232.} Xytex Lawsuit: 3 Families Sue Sperm Bank Because Donor Allegedly Has Schizophrenia, HUFFINGTON POST (Apr. 15, 2016), https://www.huffingtonpost.ca/2016/04/15/xytex -lawsuit_n_9702238.html.

^{233.} Xytex claims that it selects only the top 5 percent of donor applicants. *See* Boyle, *supra* note 230.

^{234.} Id.

^{236.} In fact, Xytex does test for *infectious* diseases. The company says it requires a physical exam, psychological exam, completion of an extensive questionnaire that delves into personal and family medical history, and genetic testing for a number of conditions, including cystic fibrosis. However, it relies in large measure on questionnaires (like most sperm banks) and does little if any independent verification donor. *Id.*

^{237.} Id.

^{238.} This is the highest possible score on a common form of the test, the WAIS-IV. *What is the WAIS-IV?*, STRATEGIC PSYCHOLOGY, https://strategicpsychology.com.au/wais/ (last visited on October 27, 2019).

An accidental release of an email in 2014 revealed the identity of Donor 9623 as James Christian "Chris" Aggeles. An internet search revealed that Mr. Aggeles was no genius. In fact, he was at the time a college dropout, and his claims of being a burgeoning neuroscientist pursuing a Ph.D. were entirely bogus. Nor was he an internationally acclaimed drummer. And while his profile indicated he was "eloquent when he spoke,"²⁴¹ the only language he spoke was English. Nor was he a model citizen. Rather, he was a convicted felon charged with burglary who served eight months in jail; the remainder of the ten-year sentence was commuted.²⁴² While Xytex bragged that Mr. Aggeles "was their best donor"243 and especially good-looking, it turned out they photo-shopped a mole off of his face.²⁴⁴ More serious was his diagnosis of schizophrenia,²⁴⁵ a disease with a genetic component,²⁴⁶ and that he suffered "significant grandiose delusions"²⁴⁷ along with bipolar and narcissistic personality disorders.²⁴⁸ Most serious, though, was that Ms. Collins' son was not the only child fathered by Mr. Aggeles. In violation of established norms at least somewhat limiting dissemination, Xytex furnished Donor 9623's sperm to thirty-five other women²⁴⁹—that we know of.²⁵⁰

242. Id.

243. Id.

244. Id.

245. Collins, 2015 WL 6387328, at *1.

246. See SIDDHARTHA MUKHERJEE, THE GENE 442 (2016). The disease manifesting in some cases in "young men who experienced a gradual but irreversible breakdown in their cognitive abilities," or "a terrifying form of cognitive disintegration—the collapse of think-ing." *Id.* at 441. "We know that there are at least 108 genes (or rather genetic regions) associated with schizophrenia—although we know the identity of only a handful of these culprits." *Id.* at 445.

247. See Christine Van Dusen, A Georgia Sperm Bank, a Troubled Donor, and the Secretive Business of Babymaking, ATLANTA (Feb. 13, 2018) https://www.atlantamagazine.com/ great-reads/georgia-sperm-bank-troubled-donor-secretive-business-babymaking/ ("A 2012 post on YouTube, reportedly by [Aggeles] . . . provided a vivid description of his symptoms. "The "hearing voices" is kind of hard to explain, but here goes: so I will be thinking something like, what I am going to make for dinner, and it's like my thought gets interrupted by a voice that tells me something that usually has nothing to do with what I was just thinking. Its [sic] usually mean and will say things that are derogatory and demeaning to me. That, for me, is the toughest part about being schizophrenic."").

248. Collins, 2015 WL 6387328, at *1.

249. Boyle, supra note 230.

250. See Yanan Wang, Couple Says Everything They Were Told About Their Sperm Donor Was a Lie, CHI. TRIB. (Apr. 15, 2016), https://www.chicagotribune.com/nation-world/ctsperm-donor-xytex-20160415-story.html ("Xytex told the Star that the donor's sperm has been used to conceive 36 children in Canada, the U.S., and the U.K."). This does not take into account that Mr. Aggeles may have supplied sperm to other sperm banks. Furthermore, Xytex destroyed its own records at some point before Mr. Aggeles began supplying sperm.

^{241.} Boyle, supra note 230.

Angela Collins brought suit against Xytex alleging ten causes of action,²⁵¹ only to see her complaint, and then her appeal, dismissed.²⁵² Although she alleged, *inter alia*, fraud, products liability, and negligent misrepresentation, the court held that all claims boiled down to a "wrongful birth" action which is not recognized in Georgia.²⁵³

The claim, however, is recognized in California, and that is where the second claim against Xytex was filed. From this complaint, more facts emerge.

2. Doe v. Xytex Corp.

About a year after Judge McBurney dismissed *Collins*, the Jane Does instituted their case against Xytex.²⁵⁴ Their complaint included more than thirteen claims, including products liability, negligence, warranty, battery, false advertising, wrongful birth, specific performance, and violation of the California Unfair Competition law. In June of 2016, the action was removed to Federal Court on diversity grounds.²⁵⁵ After several procedural tussles,²⁵⁶ discovery was continued at a court-ministered evidentiary hearing where additional facts emerged, including the concerted effort by Xytex (via its representative Mary Hartley) to induce Mr. Aggeles to puff up his back-ground and (perhaps fraudulently²⁵⁷) seduce the plaintiffs into buying his semen.²⁵⁸

The Does had contacted Xytex for reasons similar to Collins. Impressed by Xytex's advertised status and screening procedures ("Xytex's

255. Notice of Removal at 1:11-12, Doe 1 v. Xytex Corp., No. C 16-02935 WHA, 2016 WL 3902577 (N.D. Cal. July 19, 2016).

^{251.} Posada, *supra* note 160, at 850.

^{252.} The appeal was dismissed on procedural grounds. Order to Dismiss, Collins et al. v. Xytex Corp. et al., No. 2015-cv-259033, 2015 WL 6387328 (Ga. Super. Ct. Oct. 20, 2015).

^{253.} Kate Brumback, *Judge Tosses Lawsuit Which Alleged Sperm Bank Misrepresented Donor*, AP NEWS (Oct. 21, 2015), https://apnews.com/1c40077649aa42c28cc0bcbc 6178d2d9.

^{254.} Doe 1 v. Xytex Corp., No. C 16-02935 WHA, 2017 WL 1112996, (N.D. Cal. Mar. 24, 2017).

^{256.} Doe 1 v. Xytex Corp., No. C 16-02935 WHA, 2016 WL 7009226, at *5 (N.D. Cal. Dec. 1, 2016).

^{257.} Joe Johnson, *UGA Employee at Center of Sperm Bank Fraud Lawsuit*, ATHENS BANNER-HERALD (Sept. 3, 2016), https://www.onlineathens.com/mobile/2016-09-03/uga-employee-center-sperm-bank-fraud-lawsuit (Mr. Aggeles actually turned himself in to the Athens-Clarke County Police Department, "saying he committed fraud with Xytex and wanted to surrender.").

^{258.} See Doe 1 v. Xytex Corp., No. C 16-02935, 2017 WL 1112996, at *2 (N.D. Cal. Mar. 24, 2017); see also Rebecca Tushnet, False Advertising of Sperm Donor Leads to Wrongful Birth Claim, TUSHNET BLOG (Mar. 29, 2017), https://tushnet.com/2017/03/29/false-advertising-of-sperm-donor-leads-to-wrongful-birth-claim/.

website declared that it is 'an industry leader in reproductive services with a commitment to unsurpassed quality controls'²⁵⁹), they asked Xytex representative Hartley if she had a sperm donor with a particularly impressive health and education history. In the prototypical "hard sell" Hartley

immediately singled out . . . Donor 9623, and stated that although Xytex has not yet published his profile on their website, his sperm had already been used to successfully inseminate women and it would be sold out as soon as his profile was published 'Moments after' the phone conversation, Jane Doe One and Jane Doe Two purchased sperm from Donor 9623.²⁶⁰

The sperm was shipped from Georgia to San Francisco where Jane Doe One was inseminated, giving birth in 2004.

We now learn that Donor 9623 first applied to Xytex sometime in late 2000 when he was a janitor/waiter after dropping out of school.²⁶¹ During Xytex's "rigorous qualification procedure" (which consisted of no more than filling out a questionnaire and undergoing a ten minute physical in which medical and health histories were not taken), Mr. Aggeles "told Hartley that he thought his IQ was about 130, but Hartley "suggested that he was a genius with an IQ of about 160."²⁶² Hartley further told him "that the more educated donors did well selling their sperm, and that Xytex usually dealt with donors with a higher education."²⁶³ Since, at the time, Xytex was recruiting suppliers using unusually aggressive financial come-ons, and since Hartley's suggestion was accepted, we can postulate the pecuniary benefits of increased sales influenced Mr. Aggeles' revised application and inflation of his intellectual prowess. It was this aggrandizement of intellectual capacities that induced the mothers in the reported lawsuits to purchase Donor 9623's sperm.²⁶⁴

We also learn more details of Mr. Aggeles' mental history: Prior to selling his sperm to Xytex, not only had Mr. Aggeles been diagnosed with psychotic schizophrenia, but he had been hospitalized for that condition on

263. Id.

264. See Cha, supra note 50 (highlighting "a preference among many would-be parents for tall, thin, highly-educated donors.").

^{259.} Doe 1 v. Xytex Corp., No. C 16-02935 WHA, 2017 WL 1112996, at *1 (N. D. Cal. July 19, 2017).

^{260.} Id.

^{261.} Id.

^{262.} Theresa Boyle, *Sperm Bank Encouraged Mentally Ill Donor to Lie About IQ, Law-suit Claims*, SPEC (Apr. 20, 2016), https://www.thespec.com/news-story/6505131-sperm-bank-encouraged-mentally-ill-donor-to-lie-about-iq-lawsuit-claims/; Van Dusen, *supra* note 247 ("Hartley says in a recording, which was made available . . . to curious customers, 'I could tell the genuineness from the very beginning . . . This guy—he's the type that you really strive to get.").

at least two occasions—in one case for more than two weeks²⁶⁵—and that, not surprisingly,²⁶⁶ he had been on complete social security disability for a time.²⁶⁷

In March of 2017, the court declined to dismiss the lawsuit in its entirety and set the case for trial in November.²⁶⁸ Xytex took to the media and denied wrongdoing. Its lawyer pointed to the *Collins* case, stating: "Xytex looks forward to successfully defending itself from the new lawsuits with the same results as the original case."²⁶⁹ A month before the trial the case settled,²⁷⁰ as did several similar cases²⁷¹ around the country.²⁷² This turn of events, however, did not motivate Georgia courts to uncork its bar to suit. In two recent cases, *Zelt v. Xytex*²⁷³ and *Norman v. Xytex*,²⁷⁴ the courts again refused to countenance any deviation to the bar to wrongful birth/life cases.

3. Zelt v. Xytex

In February 2018, Judge Thrash of the United States District Court for the Northern District of Georgia dismissed Renee Zelt's claims along the same lines as did Judge McBurney in *Collins*. Noting Mr. Aggeles' (unusually) remarkable rapid clearance to become a sperm supplier, the court also remarked that Mr. Aggeles continued to supply sperm until 2016,²⁷⁵ before denying recovery on the same grounds as *Collins*. Since previous reports

^{265.} Tushnet, supra note 258.

^{266.} Bipolar disorder and unemployment are common co-morbidities of schizophrenia. *See infra* notes 309–32 and accompanying text.

^{267.} Van Dusen, *supra* note 246 ("For years, Xytex had focused its advertising . . . eager to tap into the willing cohort found on college campuses.").

^{268.} Id.

^{269.} Ashifa Kassam, Sperm Bank Sued as Case of Mentally Ill Donor's History Unfolds, GUARDIAN (Apr. 14, 2016), https://www.theguardian.com/world/2016/apr/14/sperm-donor-canada-families-file-lawsuit.

^{270.} *Xytex Settles Sperm Donor Case Before Trial Begins*, SURROGACY L. CTR., https://www.surrogacy-lawyer.com/assisted-reproduction/xytex-settles-sperm-donor-case-before-trial-begins/ (last visited Oct. 21, 2019).

^{271.} John Kennedy, *Xytex Settles Claims Over Poorly Screened Sperm Donor*, LAW360 (Oct. 26, 2017), https://www.law360.com/articles/978521/xytex-settles-claims-over-poorly-screened-sperm-donor; *see also* Lindstrom, *supra* note 14.

^{272.} Initially, some twenty-six lawsuits were filed against Xytex. As to the number settling, that appears unavailable; the settlements were sealed. *See One of the Parents Explains the Lawsuit. - Donor Sibling Registry*, https://www.donorsiblingregistry.com/sites/default/ files/Angie%27s%20Letter.docx. In addition to the *Doe* case, the *Collins* case was also settled. *Id*.

^{273.} See Zelt v. Xytex Corp., No. 1:17-CV-4851-TWT, 2018 WL 1014627 (N.D. Ga. Feb. 22, 2018).

^{274.} Norman v. Xytex Corp., 830 S.E.2d 267, 268 (Ga. App. 2019) (pet. for writ of certiorari filed in Ga. Sup. Ct., July 11, 2019).

^{275.} Zelt, 2018 WL 1014627, at *1.

indicated Mr. Aggeles stopped supplying in 2014,²⁷⁶ the significance of the continued sperm supply until 2016 meant that data indicating he fathered thirty-six children may be incomplete.

4. Norman v. Xytex

The most recent matter in the *Xytex* Saga is *Wendy Norman and Janet Norman v. Xytex*,²⁷⁷ decided by Judge McBurney, the same judge who decided *Collins*. While the injuries claimed in earlier cases can be said to be either speculative or future-oriented, *Norman v. Xytex* takes us to the next level: present and actual harm diagnosed in A.A., the offspring sired with sperm of "our"²⁷⁸ Donor 9623.²⁷⁹ "A.A. has been diagnosed with Thalassemia Minor"²⁸⁰ A.A. also currently suffers from mental health issues including "both suicidal and homicidal ideation, searching the internet for ways to kill himself and his brother. A.A. has been hospitalized multiple times for these issues. He is presently medicated with Lexapro, Kapvay and Abilify."²⁸¹ Thus, "unlike previous Xytex litigation, . . . Plaintiffs can point to actual, present harm that they and A.A. are enduring rather than the fear of potential future physical and/or psychiatric issues."²⁸²

While keeping certain windows open for reinstatement should the appellate court reverse his decision, Judge McBurney ruled the plaintiff's claims "except . . . specific performance" are all claims "for wrongful birth camouflaged as some other tort" and dismissed the case.²⁸³ As of this writing, the case is on appeal.²⁸⁴

283. Id.

284. Norman v. Xytex Corp., 830 S.E.2d 267, 268 (Ga. App. 2019) (pet. for writ of certiorari filed in Ga. Sup. Ct., July 11, 2019).

^{276.} Boyle, supra note 230.

^{277.} Norman v. Xytex Corp., 830 S.E.2d 267, 268 (Ga. App. 2019) (pet. for writ of certiorari filed in Ga. Sup. Ct., July 11, 2019).

^{278.} Judge Alsup's sympathy to the plaintiffs in *Doe v. Xytex* was patently obvious in his reference to the plaintiff as "our plaintiff." No. C 16-02935 WHA, 2016 WL 7009226, at *3 (N.D. Cal. Dec. 1, 2016).

^{279.} Hasmik Djoulakian, *The "Outing" of Sperm Donor 9623*, CTR. GENETICS & SOC'Y (Aug. 30, 2016), https://www.geneticsandsociety.org/biopolitical-times/outing-sperm-donor-9623. Djoulakian laments the coupling of Mr. Aggeles' schizophrenia diagnosis with his poor educational attainment and criminal history. He claims that by including both in the same indictment against Xytex, the insinuation that schizophrenia is causally related is being conveyed. However, a well-documented linkage of criminality with schizophrenia does exist, and while the disease itself might not "cause" criminality, inability to hold down a job and other lifestyle effects of the disease may be influential. *See infra* notes 297–98 and accompanying text.

^{280.} Norman v. Xytex Corp., No. 2017 CV 298536, 1, 5 n.10 (Sup. Ct. Ga. June 13, 2018).

^{281.} Id.

^{282.} Norman v. Xytex Corp., No. 2017 CV 298536, 1, 5 (Sup. Ct. Ga. June 13, 2018).

Among damages sought by the Normans are medical monitoring and damages for emotional distress and fear. To understand whether such claims are reasonable and to set the stage for repurposing the public nuisance claim in the context of sperm bank malfeasance, an examination of both schizophrenia and thalassemia minor is warranted.

B. Medical Implications of the Greater Harms: Personal Injury

1. Thalassemia Minor

Thalassemia minor is an inherited (autosomal recessive) disease resulting in defective production of hemoglobin, which closely resembles mild iron-deficiency anemia.²⁸⁵ It is caused by mutation of a single gene,²⁸⁶ meaning all cases are inherited and there is no environmental component.²⁸⁷ It is simple to screen for.²⁸⁸

Since Wendy Norman does not carry the thalassemia gene, we know that Mr. Aggeles was the contributor. Because the disease is mild, it is unlikely children would be tested or come to know they were carriers. However, should a child marry someone similarly afflicted, the odds are higher *their* child will suffer more severe variants.²⁸⁹ From a population (public health) standpoint, testing of Mr. Aggeles' children is surely warranted.²⁹⁰

2. Schizophrenia

While thalassemia minor is an actual condition affecting the Normans' child, it is minor. Schizophrenia, however, is a more immediate, severe, and pressing concern that normally manifests in the teens or young adulthood.²⁹¹ The thirty-six families who used Mr. Aggeles' sperm will worry for a decade or two before learning if their child is affected, not a generation.

^{285.} *Beta Thalassemia*, MED. NET, https://www.medicinenet.com/beta_thalassemia/ article.htm#what_is_the_difference_between_thalassemia_minor_and_major (last visited July 13, 2019).

^{286.} NAT'L ACADS. PRESS, IMPROVING BIRTH OUTCOMES: MEETING THE CHALLENGES OF THE DEVELOPING WORLD 241 (Judith R. Bale et al. eds., 2003), https://www.ncbi.nlm. nih.gov/books/NBK222097/pdf/Bookshelf_NBK222097.pdf.

^{287.} DENNIS ALEXANDER, GENES, DETERMINISM AND GOD (2018).

^{288.} See MUKHERJEE, supra note 246.

^{289.} Id.

^{290.} Elham Ahmadnezhad et al., Evaluation and Cost Analysis of National Health Policy of Thalassemia Screening in West-Azerbaijan Province of Iran, 3 J. PREVENTATIVE MED. 687–92 (2012).

^{291.} Schizophrenia, NAT'L INST. MENTAL HEALTH, https://www.nimh.nih.gov/health/ topics/schizophrenia/index.shtml (last visited July 13, 2019).

Schizophrenia is a chronic and severe mental disorder that affects how a person thinks, feels, and behaves. People with schizophrenia may seem like they have lost touch with reality²⁹² The disease presents with positive symptoms (delusions, hallucinations, incoherent speech, and disorganized thinking) and/or negative (restricted affect, empty speech content, decreased motivation, and social withdrawal) symptoms.²⁹³ [S]ymptoms also include movement disorders (agitated body movements), difficulty beginning and sustaining activities, poor "executive functioning" (the ability to understand information and use it to make decisions), trouble focusing or paying attention, and problems with "working memory" (the ability to use information immediately after learning it). ²⁹⁴ People with schizophrenia are prone to additional mental health problems such as depression (which occurs in half the patients), substance-use disorders and anxiety and obsessive-compulsive disorders.²⁹⁵ An increased prevalence of panic disorder has been found in first-degree relatives of patients with schizophrenia.²⁹⁶ Patients with schizophrenia also may be at increased risk for exposure to trauma.²⁹⁷

Schizophrenics die at a younger age than the general population by around twenty-five years²⁹⁸ due to other co-occurring medical conditions, such as heart disease, liver disease, and diabetes,²⁹⁹ and an excess suicide rate over baseline,³⁰⁰ accounting for about twenty thousand deaths world-wide.³⁰¹ Attempted suicide is also more common: 20–40% of schizophrenics

294. NAT'L INST. MENTAL HEALTH, supra note 291.

295. Isabela M. Lucka et al., Prodromal Symptoms of Schizophrenics Syndrome in Children and Adolescent, 36 PSYCHIATRY POL'Y 283, 283 (2002).

296. Peter F. Buckley et al., *Psychiatric Comorbidities and Schizophrenia*, 35 SCHIZOPHRENIA BULL. 383, 385 (2008).

297. Craig Morgan & Helen Fisher, *Environment and Schizophrenia: Environmental Factors in Schizophrenia: Childhood Trauma*—A Critical Review, 33 SCHIZOPHRENIA BULL. 3, 7 (2007).

298. Mark Wolfson et al., Premature Mortality Among Adults with Schizophrenia in the United States, 72 JAMA PSYCHIATRY 1172, 1172 (2015); Thomas. M. Laursen et al., Life Expectancy and Cardiovascular Mortality in Persons with Schizophrenia, 25 CURRENT OPINION PSYCHIATRY 83, 83 (2012).

299. Id.

300. Brian A. Palmer et al., *The Lifetime Risk of Suicide in Schizophrenia: A Reexamination*, 62 ARCHIVES GEN. PSYCHIATRY 247, 247 (2005); *see also* Jim van Os & Shitij Kapur, *Schizophrenia*, 374 LANCET 635, 635 (2009).

301. Haidong Wang et al., Global, Regional, and National Life Expectancy, All-Cause Mortality, and Cause-Specific Mortality for 249 Causes of Death, 1980–2015: A Systematic Analysis for the Global Burden of Disease Study 2015, 388 LANCET 1459, 1488 (2016). In 2013, an estimated 24 million cases were reported globally. See Theo Vos et al., Global, Regional, and National Incidence, Prevalence, and Years Lived With Disability for 301 Acute

^{292.} Id.

^{293.} But see I-Jun Chou et al., Familial Aggregation and Heritability of Schizophrenia and Co-aggregation of Psychiatric Illnesses in Affected Families, 43 SCHIZOPHRENIA BULL. 1070, 1071 (2017).

attempt suicide at least once.³⁰² Some 10% of convicted murderers have schizophrenia,³⁰³ and at least one study found that 8–10% of schizophrenics had committed a violent act in the past year—four times higher than the general population.³⁰⁴ In addition, people with schizophrenia are stigmatized as being more violent (whether they are or not), a perception which has more than doubled since the 1950s.³⁰⁵

C. Genetic Implications of the Greater Harms: A Population Harm

"Schizophrenia definitely has a very significant genetic component."³⁰⁶ While certainly not all cases are genetically caused, the best research concludes the disease is 80 percent heritable.³⁰⁷ (Although some say heredity and environment are each 50 percent contributory).³⁰⁸

It is generally accepted that children of a parent with schizophrenia have an elevated risk above population baseline. Some say it is more than ten-fold, others say even higher.³⁰⁹ One conservative estimate put the risk at

303. 1000 Homicides by Mentally Ill, MENTAL ILLNESS POLICY ORG., https://mentalillnesspolicy.org/consequences/1000-homicides.html (noting that "[a] 2011 study suggests that state homicide rates are correlated to the state's civil commitment laws, i.e., states that make it easier to treat people with mental illness have lower homicide rates"); see also Alexandre Martins Valença & Talvane Marins de Moraes, Relationship Between Homicide and Mental Disorders, 28 REV. BRAZ. PSIQUIATRIA S62, S63–S64 (2006).

304. Valença & de Moraes, supra note 303.

305. Jo C. Phelan et al., Public Conceptions of Mental Illness in 1950 and 1996: What Is Mental Illness and Is It to Be Feared?, 41 J. HEALTH & SOC. BEHAV. 188, 188, 197 (2000).

306. Heredity and the Genetics of Schizophrenia, SCHIZOPHRENIA.COM, http://www.schizophrenia.com/research/hereditygen.htm (last visited on September 17, 2019); see also ROBERT PLOMIN, BLUEPRINT: HOW DNA MAKES US WHO WE ARE, vii, x, 5 (2018) (where one researcher claims that every psychological disease has a genetic component).

307. Twin Study Pins Nearly 80% of Schizophrenia on Heritability, NEUROSCIENCE NEWS (Oct. 5, 2017), https://neurosciencenews.com/schizophrenia-heritability-7672/; see also Rikke Hilker et al., Heritability of Schizophrenia and Schizophrenia Spectrum Based on the Nationwide Danish Twin Register, 83 BIOLOGICAL PSYCHIATRY 492, 495 (2017); Dennis R. Combs et al., Chapter 8: Schizophrenia: Etiological Considerations, in M HERSEN AND D.C. BEIDEL, ADULT PSYCHOPATHOLOGY AND DIAGNOSIS 234, 257 (6th ed. 2011).

308. See Chou et al., supra note 293.

309. See Heredity and the Genetics of Schizophrenia, SCHIZOPHRENIA.COM, http://www.schizophrenia.com/research/hereditygen.htm (last visited July 14, 2019).

and Chronic Diseases and Injuries in 188 countries, 1990-2013: A Systematic Analysis for the Global Burden of Disease Study 2013, 386 LANCET 743 (2015); Schizophrenia, WORLD HEALTH ORG., https://www.who.int/mental_health/management/schizophrenia/en/ (last visited June 22, 2019).

^{302.} AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS, 101–05 (5th ed. 2013); *see also* Andreas Carlborg et al., *Suicide in Schizophrenia*, 10 EXPERT REV. NEUROTHERAPEUTICS, 1156 (2010).

six-fold increase over baseline;³¹⁰ others say the "risk goes up to 12 percent."³¹¹ To evaluate the actual consequences, identifying the baseline level is paramount; in other words, ten times more than what? Is this a rare disease, in which case 10 percent over baseline may be undetectable, or a relatively common one?

In fact, schizophrenia is not uncommon. The incidence in the general population is said to be 1 percent,³¹² or one per hundred live births. Thus, in a population of a hundred people where children have one schizophrenic parent, we should expect twelve cases—and if a father has thirty-six children, we expect four cases instead of none to one.³¹³ If one of Mr. Aggeles' children carries schizophrenia-inducing gene(s) and marries someone else with similar gene(s), the risk trebles. Thus we have the "shocking" statistic "that if both of your parents have schizophrenia, the risk increases to 39 percent."³¹⁴ Additionally, a 1.62-fold risk of other mood disorders (including bipolar disorder)³¹⁵ has been reported in offspring of schizophrenic parents. One-third of these children "may develop severe mental illness by early adulthood."³¹⁶

Approximately ten gene variations are linked to schizophrenia³¹⁷ and defects in certain genes may be especially determinative of disease onset.

312. Heinz Häfner, *Review Article: The Concept of Schizophrenia: From Unity to Diversity*, 2014 ADVANCES IN PSYCHIATRY 1 (2014) ("Multiple formal genetic studies have demonstrated the contribution of genetic factors to schizophrenia risk. The lifetime schizophrenia risk of first-degree relatives shows a 5–10-fold increase compared to that observed in the general population (lifetime prevalence 1%).").

313. Johnson, *supra* note 257. Of Mr. Aggeles' thirty-six children (in twenty-six families), seventeen were girls, nineteen were boys, following the normal statistical pattern. There is no reason to believe the heredity pattern of schizophrenia would be different.

314. Pablo V. Ghejman et al., *The Role of Genetics in the Etiology of Schizophrenia*, 33 PSYCHIATRY CLINICAL N. AM. 35, 35–66 (2010).

315. Nick Craddock & Michael J. Owen, *The Kraepelinian Dichotomy—Going, Going . . . But Still Not Gone*, 196 BRIT. J. PSYCHIATRY 92, 92–95 (2010).

316. See Chou et al., supra note 293, at 1071; Daniel Rasic et al., Risk of mental illness in offspring of parents with schizophrenia, bipolar disorder, and major depressive disorder: a meta-analysis of family high-risk studies, 40 SCHIZOPHRENIA BULL. 28 (2014); Fritz Mattejat & Helmut Remschmidt, The Children of Mentally Ill Parents, 105 DUETSCHES ÄRZTEBLATT INT. 413 (2008). A risk of 1.62 means there is a 62% chance the child will develop the disease—a figure higher than the 51% chance commonly associated with the more probable than not rubric.

317. *But see* MUKHERJEE, *supra* note at 246 (noting 108 genes or genetic regions are associated with schizophrenia).

^{310.} Id.; see also Chou et al., supra note 293.

^{311.} See Tim B. Bigdeli et al., Genome-Wide Association Study Reveals Greater Polygenic Loading for Schizophrenia in Cases with a Family History of Illness, 171 NEUROPSYCHIATRIC GENETICS 276, 278–79 (2016); Elliot Rees et al., Genetics of Schizophrenia, 2 CURRENT OPINION BEHAV. SCI. 8, 9 (2015); see cf. ALEXANDER, supra note 287, at 170 (asserting the risk is nine times over background).

Chromosome 22, for example, has been linked to a near-doubled risk of disease.³¹⁸ Around 5 percent of cases are due to other genetic variations³¹⁹ which may increase the risk of developing the disorder by as much as twen-ty-fold.³²⁰

As with thalassemia, the severity of schizophrenia exacerbates over successive generations. Thus, from a societal standpoint more important than the impact on Mr. Aggeles' children is the impact of a schizophrenia-genetic component on *their* children. This phenomenon, known as anticipation, appears as an "increasing severity or earlier age on onset . . . across successive generations. Diseases such as . . . fragile X syndrome have . . . been shown to exhibit anticipation . . . [and it] has been demonstrated in families with . . . schizophrenia."³²¹ Simply stated, then, both diseases worsen over generations.

D. Economic Implication of Greater Harms: Public Health Costs

The impact of genetics and genomics on public health is wellrecognized.³²² This includes considerations of behavioral and environmental interventions to reduce risk, and examination of cost-effectiveness of a broad range of clinical and environmental interventions.³²³ In the case of schizophrenia, for example, the public health burdens also include considerations of lost productivity, criminal justice involvement, social service needs, and other factors beyond actual health care for those with the disease.³²⁴

Financial costs associated with schizophrenia are disproportionately high³²⁵ and the societal economic burden of the disease is heavy.³²⁶ Schizo-

^{318.} Schizophrenia Is Hereditary, but Only to a Certain Degree, MERCOLA TAKE CONTROL OF YOUR HEALTH, https://articles.mercola.com/schizophrenia/hereditary.aspx (last visited October 28, 2019).

^{319.} Chelsea Lowther et al., *Genomic Disorders in Psychiatry—What Does the Clinician Need to Know*?, 19 CURRENT PSYCHIATRY REP. 82 (2017).

^{320.} Heredity and the Genetics of Schizophrenia, SCHIZOPHRENIA.COM,

http://www.schizophrenia.com/research/hereditygen.htm (last visited June 24, 2019) ("[F]irst degree relatives have an incidence of schizophrenia an order of magnitude higher than the general populace [(20 % v. 10 %)].").

^{321.} *Id.*; see also What Do Geneticists Mean by Anticipation?, U.S. NAT'L LIBR. MED. (June 11, 2019), https://ghr.nlm.nih.gov/primer/inheritance/anticipation.

^{322.} See Ridgely F. Green et al., Evaluating the Role of Public Health in Implementation of Genomics-Related Recommendations: A Case Study of Hereditary Cancers Using the CDC Science Impact Framework, 21 GENETICS MED. 28 (2018).

^{323.} INST. MED. (US) COMM. GENOMICS & PUB.'S HEALTH 21ST CENTURY, IMPLICATIONS OF GENOMICS FOR PUBLIC HEALTH: WORKSHOP SUMMARY (Lyla M. Hernandez, ed., 2005).

^{324.} Schizophrenia, NAT'L INST. MENTAL HEALTH, https://www.nimh.nih.gov/health/ topics/schizophrenia/index.shtml (last visited July 13, 2019).

^{325.} Id.

phrenia is one of the top fifteen causes for disability worldwide³²⁷ and active schizophrenic psychosis ranked the third-most-disabling condition after quadriplegia and dementia (worse than paraplegia and blindness).³²⁸ Some 50 percent of schizophrenics have chronic lifelong impairment³²⁹ often accompanied by long-term unemployment, poverty, and homelessness.³³⁰ About 85 percent are unemployed³³¹ and approximately three-fourths of schizophrenics have ongoing disability with relapses.³³² In the United States, the financial cost of schizophrenia—including direct costs (outpatient, inpatient, drugs, and long-term care) and non-health care costs (law enforcement, reduced workplace productivity, and unemployment)—was estimated as \$62.7 billion in 2002,³³³ ballooning to \$155 billion in 2013, more than doubling in a decade.³³⁴ Per individual, this translates into a cost of almost \$100,000 per patient.³³⁵

328. T. Bedirhan Ustün et al., Multiple-Informant Ranking of the Disabling Effects of Different Health Conditions in 14 Countries, 354 LANCET 111, 111 (1999).

329. Ryan E. Lawrence et al., "Schizophrenia and Other Psychoses," in PSYCHIATRY, 798, 816, 819 (Allan Tasman ed., 4th ed. 2015).

330. AM. PSYCHIATRIC ASS'N, supra note 302, at 101–105.

331. Michael J. Owen et al., Schizophrenia, 388 LANCET 86, 86 (2016).

332. Thomas Smith et al., *Schizophrenia (Maintenance Treatment)*, 82 AM. FAM. PHYSICIAN 338, 338 (2010).

333. See Eric Q. Wu et al., *The Economic Burden of Schizophrenia in the United States in 2002*, 66 J. CLINICAL PSYCHIATRY 1122, 1125 (2005).

334. Economic Burden of Schizophrenia in the U.S. Exceeded \$155 Billion in 2013, New Study Funds, HEALTH CARE BULLETIN, https://www.analysisgroup.com/Insights/ag-feature/health-care-bulletin/fall-2016/economic-burden (last visited June 24, 2019) (citing Eric We et al., J. CLINICAL PSYCHIATRY (2016)).

335. "About 100,000 people in the United States will be diagnosed with schizophrenia in 2015 [about 1.1% of adults the United States]. The 12-month prevalence . . . in the USA in 2002 was estimated at 5.1 per 1000 lives." *See* E.Q. Wu et al., *Annual Prevalence of Diagnosed Schizophrenia in the USA: A Claims Data Analysis Approach*, 36 PSYCHOL. MED. 1535, 1535 (2006). Given that 1.5 million cases divided by 62 billion dollars = \$41,000 each in 2002, or at 1.5 million cases per \$1.55 billion, about \$100,000 per patient in 2013.

^{326.} van Os, supra note 300, at 635.

^{327.} Global, Regional, and National Incidence, Prevalence, and Years Lived with Disability for 328 Diseases and Injuries for 195 Countries, 1990–2016: A Systematic Analysis for the Global Burden of Disease Study, 390 LANCET 1211, 1231 (2017); see also Marco M. Picchioni & Robin M. Murray, Schizophrenia, 335 BRIT. MED. J. 91 (2007).



Chart 2: Economic Burden of Schizophrenia.³³⁶

The negative impacts of sperm bank errors, then, can far transcend those to the individual. The consequent impact on society includes both genetic effects on the population gene pool and economic impacts on public health, including costs of intervention. These harms affect all of us.

V. PRIVATE USE OF PUBLIC NUISANCE: THE LEGAL IMPERATIVE

In this part, I discuss the legal background for nuisance theory and provide the basis for its novel use in the context of sperm bank errors. I also provide a harm-driven predicate for this approach. This harm-driven approach enlarges the eligible class of plaintiffs, expands the scope of recovery, and allows for punitive damages—thereby producing a deterrent effect in addition to providing compensatory relief and therapeutic justice.

^{336.} Economic Burden of Schizophrenia in the US Exceeded \$155 Billion in 2013, New Study Finds, ANALYSIS GROUP, http://www.analysisgroup.com/economic-burden-schizophrenia-in-us/ (last visited June 15, 2019).

A. The Public Nuisance Claim for Damaging the Genetic Ecology

Individual children fathered by Mr. Aggeles have an increased risk of schizophrenia at levels somewhere between ten and twenty-fold over background. As far as the population is concerned, we will bear the costs of caring for between four and eight schizophrenics who would not otherwise have been born, but for Xytex's actions. That is what happens when someone with this genetic profile fathers thirty-six children—but when men who bear a gene for a similar heritable condition father one hundred or six hundred³³⁷ or eight hundred³³⁸ or perhaps one thousand³³⁹ children—what becomes the population burden then?

In the *Xytex* cases, investigating public (criminal) records and verifying entries on Mr. Aggeles' application (e.g., employment) might have disclosed facts rendering him ineligible to supply sperm, obviating the resultant thirty-six (or more) pregnancies.³⁴⁰ The failure to perform routine background checks and verifications or require psychological evaluation (e.g., screening techniques used by matchmaking agencies or educational institutions) should be sufficient to establish claims for negligence. However, under current law, such claims would be rejected as falling under the wrongful life or wrongful birth rubric. Even assuming such a claim could survive, it cannot be applied when malfeasance is not the cause of the harm.

Thus, what if the sperm supplier doesn't have a criminal record or is not aware of genetic anomalies he carries? How else would you prevent someone from providing unhealthy sperm? The knee-jerk response is to require genetic testing. Simply stated, this just isn't feasible for many genetic diseases—at least for now. As of 2003, approximately nine hundred available genetic tests were on the market,³⁴¹ today there are some two thousand,³⁴² some requiring expensive karyotyping.³⁴³ In the future, costs are

342. *Genetic Testing: How It Is Used for Healthcare*, U.S. DEP'T HEALTH & HUMAN SERVS., https://report.nih.gov/NIHfactsheets/ViewFactSheet.aspx?csid=43 (last visited June 15, 2019).

^{337.} Smith, supra note 120.

^{338.} Crocker, *supra* note 121.

^{339.} Cook, *supra* note 213.

^{340.} In *Doe 1 v. Xytex*, Judge William Alsup wrote, "If Xytex had screened Donor 9623 as carefully as claimed . . . he likely would have been rejected." No. C 16-02935 WHA, 2017 WL 1112996, (N.D. Cal. Mar. 24, 2017); *see also* Lindstrom, *supra* note 14.

^{341.} See Francis S. Collins, A Brief Primer on Genetic Testing, NAT'L HUMAN GENOME RES. INST. (Jan. 24, 2003), https://www.genome.gov/10506784/a-brief-primer-on-genetic-testing; see also Genetic Testing FAQ, NAT'L HUMAN GENOME RES. INST., https://www.genome.gov/FAQ/Genetic-Testing (last visited June 15, 2019).

^{343.} Ellen E. Write, Father and Mother Know Best: Defining the Liability of Physicians for Inadequate Genetic Counseling, 87 YALE L.J. 1488, 1493 n.21 (1978); see also William G. Johnson et al., Artificial Insemination by Donors: The Need for Genetic Screening, 304 NEW ENG. J. MED. 755, 776 (1981).

predicted to decline, and eventually sequencing an individual's entire genome will cost less than \$1,000.³⁴⁴ At that point, the standard of care may change, but it may be decades before genetic interactions can be fully assessed. For now, in most cases, blanket testing is plainly not feasible.

Feasibility is a cornerstone of negligence.³⁴⁵ As stated above, rigorous criminal checks and a detailed history of a non-anonymous donor (who would be less tempted to lie) might prevent some of the calamities. But far from all. The mere possibility that one genetically impaired individual would sire hundreds of children and introduce heritable diseases into the gene pool at perhaps ten times over background, which increase in severity over generations, demands redress. That technological advances (e.g., IVF/ART technologies) caused these problems highlights the importance of the legal community considering the implications of scientific advances from the get-go. This means that addressing the resultant problems generated by these advances requires a multi-pronged approach, including redress to compensate victims, removing or reducing the onus on the public social welfare system, creating tax structures for caring for such children, and ultimately forcing the sperm bank industry to cut profits and siphon some of it into better screening/monitoring mechanisms. And if the current legal system has no means of redress, "in the absence of statutory law . . . we must innovate."346

Innovation in tort law is not new, although the *Xytex* judges seem oblivious. As Justice Cardozo noted: "[i]nnovate, however, to some extent [the judge] must, for with new conditions there must be new rules."³⁴⁷ At least one court noted that "[t]he law of negligence was created by common law judges and therefore unavoidably the Court's responsibility [is] to continue to develop or limit the development of that body of law absent legislative direction."³⁴⁸ Lack of precedent cannot absolve a common law court for not developing the law.³⁴⁹ However, rather than create an entirely new claim, I suggest that a new use for an old tort—one which excludes the requirement of foreseeability—might be more workable, or at the very least more acceptable and easily implementable.

In this regard, I propose the claim of public nuisance as an appropriate remedy to redress the greater harms created by sperm banks, e.g., those

^{344.} *NIH Genetic Testing: How It Is Used for Healthcare*, U.S. DEP'T HEALTH & HUMAN SERS. (2010), https://report.nih.gov/NIHfactsheets/ViewFactSheet.aspx?csid=43.

^{345. 57}A AM. JUR. 2D *Negligence* § 132, Westlaw (database updated August 2019) ("[A]n act or omission is generally not negligent which can only be done or prevented by ...

the expenditure of extraordinary sums of money").

^{346.} BENJAMIN N. CARDOZO, THE NATURE OF THE JUDICIAL PROCESS 137 (Yale, 1921).

^{347.} Id.

^{348.} Moning v. Alfono, 254 N.W.2d 759, 764 (1977).

^{349.} See Berger v. Weber, 303 N.W.2d 424, 425 (1981).

which introduce a genetic anomaly into the population gene pool over background levels. Such acts infringe on the public health by tampering with evolutionary biology and interfering with the gene pool. In other words, sperm bank activity that creates genetically impaired children impairs the public health by invading a right to protection of the genetic ecology. Additionally, these problems tax the economics of public health by increasing societal costs needed to deal with medically induced problems.

Public nuisance also may be appropriate to address instances of switched embryos which generate harms that tax society's resources, such as custody battles³⁵⁰ requiring court intervention.³⁵¹ Under public nuisance theory, the resultant child would also be able to sue³⁵²—as the child is not suing over her or his life or its quality, but merely rights to be enjoyed by all.³⁵³ the freedom to parent (and select a co-parent), the freedom to be free from genetic tampering, and the right to protection of the genetic ecology. This claim will broaden the class of plaintiffs eligible to sue and enlarge recovery available and will be discussed in Section D. In the next section, I first explore the rudiments of the claim before delving into the relevant history.³⁵⁴

B. The Basis: Definitions, History, and Requirements

There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word "nuisance." It has meant all things to all people and has been applied indiscriminately to everything from an alarming advertisement to a cockroach baked in a pie. There is general agreement that it is incapable of any exact or comprehensive definition.³⁵⁵

The historical underpinnings of the cause of action, however, are welldocumented³⁵⁶ and establish its relevance to the matter at hand. In the begin-

^{350.} Perry-Rogers v. Fasano, 276 A.D.2d 67 (N.Y. 2000).

^{351.} The issue of "whose child am I?", especially where two sets of parents claim custody, may constitute a serious violation on the right to family—or at least the sanctity of family life, a basic tenet of many religions and cultures. *See* Raziel Liebler, *Are You My Parent? Are You My Child? The Role of Genetics and Race in Defining Relationships After Reproductive Technological Mistakes*, 5 DEPAUL J. HEALTH CARE L. 15 (2002).

^{352.} Akau v. Olohana Corp., 652 P.2d 1130, 1134 (Haw. 1982) ("[W]e believe it is unjust to deny members of the public the ability to enforce the public's rights when they are injured.").

^{353.} See infra note 358 and accompanying text; see also Russo, supra note 25.

^{354.} See David R. Hodas, Private Actions for Public Nuisance: Common Law Citizen Suits for Relief from Environmental Harm, 16 ECOLOGY L. Q. 883 (1989).

^{355.} W. PAGE PROSSER ET AL., PROSSER AND KEETON ON TORTS (5th ed. 1984), n. 34, 1004; see id. § 86, 616; see also 58 AM. JUR. 2D Nuisances §§ 20–21 (1984); see also State v. Davis, 333 P.2d 613, 616 (N.M. 1958).

^{356.} See generally William L. Prosser, Private Action for Public Nuisance, 52 VA. L. REV. 997 (1966).

ning, private nuisances that hindered public goods were considered a public nuisance, indictable as a misdemeanor.³⁵⁷ Initially, the public goods in question were waterways; in our case, it is the gene pool.

Simply put, the *Restatement (Second) of Torts* defines public nuisance as "an unreasonable interference with a right common to the general public."³⁵⁸ An "unreasonable interference" includes conduct involving "a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience;" or conduct "of a continuing nature" or which had "produced a permanent or long-lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right."³⁵⁹ The *Restatement (Second) of Torts* modernizes public nuisance doctrine by classifying a greater variety of unreasonable acts as public nuisances and establishing that a violation of property rights is no longer necessary.³⁶⁰ Hence, tampering with the gene pool should be actionable under this theory.³⁶¹

The legal focus of recent developments has shifted to examining whether the plaintiff was in fact injured,³⁶² and the "particular damage" rule has been broadened beyond physical injury³⁶³ or pecuniary loss.³⁶⁴ Today, the claimant must only "show that he personally has suffered some actual *or threatened injury* as a result of the putatively illegal conduct of the defendant' and that the injury . . . 'fairly can be traced to the challenged action"³⁶⁵ and that the damage is severe.³⁶⁶

361. Armory Park v. Episcopal Comm. Servs., 712 P.2d 914, 917 (Ariz. 1985).

^{357.} See TAL GOLAN, LAWS OF MEN AND LAWS OF NATURE, THE HISTORY OF SCIENTIFIC EXPERT TESTIMONY IN ENGLAND AND AMERICA 11–14, 41, 70, 73–79 (2004).

^{358.} RESTATEMENT (SECOND) OF TORTS § 821B (1) (AM. LAW INST. 1977).

^{359.} Id.

^{360.} E.g., City of Boston v. Smith & Wesson Corp., 12 Mass. L. Rep. 225, 234 (2000) (an action against firearms manufacturers, distributors, sellers and promoters); see Note, *Recovering the Costs of Public Nuisance Abatement: The Public and Private City Sue the Gun Industry*, 113 HARV. L. REV. 1521, 1529 (2000); see also LAWRENCE O. GOSTIN & LINDSAY F. WILEY, PUBLIC HEALTH LAW: POWER, DUTY, RESTRAINT 243 (2016); *In re* Starlink Corn Prods. Liab. Litig., 212 F. Supp. 2d 828, 833 (N.D. III. 2002).

^{362.} See Denise E. Antolini, Modernizing Public Nuisance: Solving the Paradox of the Special Injury Rule, 28 ECOLOGY L.Q. 755 (2001).

^{363.} Anderson v. W.R. Grace & Co., 628 F. Supp. 1219 (D. Mass. 1986) ("The court defined an injury-in-fact as a personal injury to a recognized interest . . . caused by . . . inconvenience, annoyance, or discomfort."); *see* Keating, *supra* note 24; *see also* RESTATEMENT (SECOND) OF TORTS § 821C cmt. d (AM. LAW INST. 1977).

^{364.} Stop & Shop v. Fisher, 444 N.E.2d 368, 373 (1983).

^{365.} Mandy Garrells, *Raising Environmental Justice Claims Through the Law of Public Nuisance*, 20 VILL. ENVTL. L.J. 163, 178 (2009) (emphasis added) (quoting Gladstone Real-tors v. Vill. of Bellwood, 441 U.S. 91, 99 (1979)).

^{366.} Louisiana ex rel. Guste v. M/V Testbank, 752 F.2d 1019 (5th Cir. 1985), cert. denied, 477 U.S. 903 (1986) (emphasis added).

The amorphous definition associated with the term allows the tort to be refashioned into one that addresses current problems—and indeed its use has been expanded, first to environmental harms,³⁶⁷ then to tobacco, and finally (and perhaps most closely aligned) to the opioid epidemic.³⁶⁸ In fact, the broad tentacles of the claim have been espoused by Professor Keating, who asserts that negligence is not a prerequisite for recovery,³⁶⁹ thereby cutting off at the knees the argument of infeasibility of genetic testing.

A brief foray into the origins of the doctrine provides even greater support for its use to redress sperm bank errors.³⁷⁰ If we consider the famous example of *Hale's Case*³⁷¹ we start to paint a vivid picture of the wide scope of the tort at its nascence: a tort that put health as a cornerstone of actionability.³⁷²

The theory arose in 1536 where a court used language strangely reminiscent of harms created by the profitable sperm bank industry: "[W]here one man has greater hurt or inconvenience than any other man had . . . then he who had more displeasure or hurt, etc., can have an action to recover his damages that he had by reason of this special hurt."³⁷³ While initially nuisance theory derived from protection of property interests, the real driver was the intent to provide security under the law.³⁷⁴ Concerns for physical well-being, entrenched as necessities of habitation, were hence actionable.³⁷⁵

Public health developments during the sixteenth, seventeenth, and eighteenth centuries broadened the notion. As Blackstone succinctly put it, a nuisance is "anything that worketh hurt, inconvenience or damage."³⁷⁶ Blackstone's definition tracks with its American counterpart defining nuisance as "the doing or failure to do something that affects the safety, health or morals of the public or works some substantial annoyance, inconvenience

372. Palmer, *supra* note 371, at 124.

373. Hodas, *supra* note 354, at 884 (quoting anonymous case 3 Y.B. Mich. 27 Hen. 8, f. 26, pl. 10 (1536)).

374. Palmer, supra note 371, at 251.

375. Aldred's Case (1610) 77 Eng. Rep. 816, 816; 9 Co. Rep. 57, 57; BAKER & MILSOM, *supra* note 371, at 599.

^{367.} Is the Public Nuisance Universe Expanding?, BLOOMBERG NEWS (Jan. 31, 2017), https://perma.cc/W2WF-CTJX.

^{368.} See infra notes 374–75 and accompanying text.

^{369.} Keating, supra note 24, at 5.

^{370.} Russo, supra note 25, at 1976.

^{371.} JOHN H. BAKER & S.F.C. MILSOM, SOURCES OF ENGLISH LEGAL HISTORY: PRIVATE LAW TO 1750, at 592–93 (1986); *see also* Wiseman v. Denham, 81 Eng. Rep. 1114 (involving moldy cheese); *see* Robert Charles Palmer, Modern Nuisance Law from a Historical Perspective 124 n.446 (Feb. 2015) (unpublished Ph.D. dissertation, University of the West of England), http://eprints.uwe.ac.uk/26153/1/Thesis%20-%20repository%20version.pdf.

^{376. 3} WILLIAM BLACKSTONE, COMMENTARIES *214; *see also* Palmer, *supra* note 371, at 137.

or injury to the public."³⁷⁷ In the nineteenth century, judges spoke of guarding the "comfort of physical existence" on property as essential to the theory of nuisance law that traditionally regarded bodily security as a protected interest.³⁷⁸ In essence, "'home' is the place where the conditions for the biology and chemistry which enables our physical being to function properly are present."³⁷⁹

The early twentieth century took the doctrine further. Roscoe Pound (1870-1964, who had a PhD in science as well as being a lawyer and legal academic),³⁸⁰ considered the five natural interests of the physical person as worthy of protection. Among those was protection of the body from direct or indirect injury, maintenance of bodily health, and protection from direct or indirect injury of one's mental health. Thus, Pound identifies human beings' natural desire to strive for freedom from annoyance which interferes with not just physical comfort but also mental poise, as furnishing a basis for the tort.³⁸¹ At common law, this rule applied to traumatic injuries. It now has been expanded to toxic torts.³⁸²

Lessons from environmental nuisance claims support its use in the IVF or sperm bank context.³⁸³ "[S]o long as there is an unreasonable interference with the public health, there is nothing that requires a public nuisance claim to arise from pollution or other land-based interferences."³⁸⁴ Pollution, then, is a generic term, not necessarily originating in land. It can be defined as the presence or introduction into the environment of a substance or thing that has harmful or poisonous effects. "[P]ollution . . . is always unlawful and, in itself constitutes a nuisance."³⁸⁵ Threats posed by pollution,³⁸⁶ especially

^{377.} Commonwealth v. S. Covington & Cincinnati St. Ry. Co., 205 S.W. 581, 583 (Ky. 1918).

^{378.} EMILY COCKAYNE, HUBBUB: FILTH, NOISE & STENCH IN ENGLAND 1600–1770 (Yale University Press 2007); *see also* Palmer, *supra* note 371, at 113.

^{379.} Palmer, supra note 371, at 115.

^{380.} Barbara Pfeffer Billauer, *Case Studies in Scientific Statecraft: The Science of Aaron Aaronson and Its Influence on Justice Louis Brandeis*, PROC. POLICY STUDIES ORG. (2015).

^{381.} Roscoe Pound, Interests of Personality, 28 HARV. L. REV. 343, 355-56 (1915).

^{382.} See Hodas, supra note 354.

^{383.} See Victor E. Schwartz & Phil Goldberg, *The Law of Public Nuisance: Maintaining Rational Boundaries on a Rational Tort*, 45 WASHBURN L.J. 541, 550–51 (2006).

^{384.} Richard A. Fogel, *Recent Uptick in Public Nuisance Claim Filings Could Indicate Broader Trend*, (April 20, 2017) https://www.rfogellaw.com/recent-uptick-in-public-nuisance-claim-filings-could-indicate-broader-trend/.

^{385.} See Palmer, supra 371, at 157.

^{386.} See Richard A. Epstein, Property Rights, State of Nature Theory, and Environmental Protection, 4 N.Y.U. J.L. & LIBERTY 1, 15 (2009) (discussing the modern uses of nuisance in environmental law and the connections with property law); see also Joseph H. Guth, Law for the Ecological Age, 9 VT. J. ENVTL. L. 431, 435 (2008).

those impacting public health,³⁸⁷ were held actionable on the basis that a polluter should not escape liability.³⁸⁸ The "*Pruitt* Rule" further extended the concept, noting that the doctrine "compensates innocent plaintiffs and imposes the costs of harm on those who caused it."³⁸⁹ With this in mind, surely it can be said that implanting sperm with genetic defects which "infects"³⁹⁰ the embryo is a form of pollution. And shouldn't a sperm bank that "pollutes" the gene pool be held to the same standard as those who pollute natural resources? In fact, the driving forces behind developments of nuisance law followed the Black Death and were imposed to "coerce people to accept responsibility and thus preserve society."³⁹¹

The nuisance claim also assists us in dealing with the lack of foreseeability incident to some genetic errors, as nuisance can be said to be a "strict liability" claim. The concept of "strict liability in nuisance"³⁹² differs from strict liability in tort³⁹³ as the "defendant can be liable for causing a nuisance if the defendant intentionally causes it, negligently causes it, or (in limited circumstances) causes it in abnormally dangerous or ultra-hazardous activities."³⁹⁴ Further, lack of foreseeability "is not the least fatal to a finding of the existence of a common law public nuisance."³⁹⁵ Hence, "[a] nuisance exists because it is a violation of an absolute duty [not to endanger]³⁹⁶ so that it does not rest on the degree of care used but rather on the degree of danger

391. See Palmer, supra note 371, at 177, 228 nn. 658, 660.

^{387.} Complaint, Port of Portland v. Monsanto Co., No. 3:17-cv-00015-MO, 2017 WL 57777 (D. Or. 2017).

^{388.} Burgess v. M/V Tamano, 370 F. Supp. 247 (D. Me. 1973), *aff'd*, 559 F.2d 1200 (1st Cir. 1977) ("The concept of responsibility for 'pollution' transcends chemical discharges, such as when a hog sty was determined to have 'corrupted' and 'infected the air.""); *see* Aldred's Case (1611) 77 Eng. Rep. 816, 817; 9 Co. Rep. 57, 57.

^{389.} Louisiana ex. rel. Guste v. M/V Testbank, 752 F.2d 1019 (5th Cir. 1985) (Wisdom, J., dissenting) (following the reasoning set out in *Pruitt v. Allied Chem. Corp.*, 523 F. Supp. 975 (E.D. Va. 1981)).

^{390.} See Aldred's Case, 77 Eng. Rep. at 817; 9 Co. Rep. at 58; Russo, supra note 25, at 1983.

^{392.} Miles v. Forest Rock Granite Co. (Leicestershire) Ltd. (1918) 34 TLR 500, 533; see also J. R. Spencer, *Public Nuisance—A Critical Examination*, 48 CAMBRIDGE L.J. 55, 59 (1989).

^{393.} Aaron D. Twerski & James A. Henderson, Jr., *Manufacturers' Liability for Defective Product Designs: The Triumph of Risk-Utility*, 74 BROOK. L. REV. 1061 (2009).

^{394.} Martins v. Interstate Power Co., No. 00-0791, 2002 WL 534890, at *2 (Iowa Ct. App. Apr. 10, 2002).

^{395.} Louise A. Halper, *Public Nuisance and Public Plaintiffs: Rediscovering the Common Law (Part I)*, 16 ENVTL. L. REP. 10292 (1986); Commonwealth v. Barnes & Tucker Co., 319 A.2d 871, 873 (Pa. 1974).

^{396.} Benson v. Loehler, 178 A.2d 909, 909 (Md. 1962); cf. Jill M. Fraley, Liability for Unintentional Nuisances: How the Restatement of Torts Almost Negligently Killed the Right to Exclude in Property Law, 121 W. VA. L. REV. 419 (2018).

existing with the best of care."³⁹⁷ Thus, if a wrongful condition exists, the person responsible for its existence is liable for resulting damages to others.³⁹⁸ Nuisance, then, is predicated on harm—not an act or failure to act.³⁹⁹ Since negligence is not vital⁴⁰⁰ to establishing the claim, it becomes a suitable means of redress for sperm bank injuries, mooting the objection raised in *Donovan*⁴⁰¹ that the defendant's negligence did not directly cause the injury.⁴⁰²

In recent years, nuisance claims for creating public health hazards have proliferated (see chart below) on the basis that "the public enjoys a right to be free from all sorts of non-physical harms."⁴⁰³ Thus, in 1994, the attorney general of Mississippi, knowing he couldn't prove a traditional case against the tobacco manufacturers, filed a public nuisance claim.⁴⁰⁴ Dozens of states followed,⁴⁰⁵ resulting in a \$365.5 billion settlement.⁴⁰⁶ The theory was also used successfully in a recent California lead paint case,⁴⁰⁷ when a California court ordered three paint manufacturers to pay \$1.1 billion for selling a hazardous product that created a public nuisance.⁴⁰⁸ It has also been used in

401. Donovan v. Ident Labs., 625 F. Supp. 2d 259, 271 (E.D. Pa. 2009).

402. Camden Cty. Bd. of Chosen Freeholders v. Berretta U.S.A. Corp., 123 F. Supp. 2d 245, 264 (D.N.J. 2000) ("[P]ublic nuisance does not require a showing of proximate cause.").

403. See Aldred's Case (1610) 77 Eng. Rep. 816; 9 Co. Rep. 57; Palmer, *supra* note 371 ("The complaint against odours from a piggery (in *Aldred*) and noxious fumes from sea-coal combustion (in *Jones*) were, I suggest, at core concerned with threats to health - reminiscent of public health issues - rather than injuries caused by negligent behaviour."); *see also* John E. Bryson & Angus Macbeth, *Public Nuisance, the Restatement (Second) of Torts, and Environmental Law*, 2 ECOLOGY L.Q. 241, 252 (1972).

404. See Barry Meier, Acting Alone, Mississippi Settles Suit With 4 Tobacco Companies, N.Y. TIMES (July 4, 1997), https://www.nytimes.com/1997/07/04/us/acting-alone-mississippi-settles-suit-with-4-tobacco-companies.html.

406. The Rising Tide of Public Nuisance Claims, JONES DAY (Jan. 12, 2012), https://www.lexology.com/contributors/jones-day; see also Georgia Nuisance Law Provides Relief For Wronged Landowners, BUTLER, WOOTEN & PEAK LLP, https://www.butlerwootenpeak.com/wp-content/uploads/pdf/nuisance-land-development.pdf (last visited Oct. 21, 2019).

408. But see Rhode Island v. Lead Indus. Assoc., Inc., 951 A.2d 428 (R.I. 2008); see also In re Lead Paint Litig., 924 A.2d 484 (N.J. 2007) (rejecting such claims); see Ohio, Dismissal of Paint Lawsuit Confirms Such Litigation is Without Merit, Says Public Nuisance Fairness

^{397. 58} AM. JUR. 2D, Nuisance §3; see infra note 336 and accompanying text.

^{398.} State *ex rel*. Webster v. Daugherty, 530 S.W.2d 81 (Tenn. 1975) (enjoining the defendant *in the future* "from conducting, maintaining, or in any wise participating in: (a) the operation of a house of ill fame, a bawdy house, or brothel . . . even though he had no knowledge . . . of the past illegal acts.").

^{399.} Milwaukee Metro. Sewerage Dist. v. City of Milwaukee, 691 N.W.2d 658, 669 (Wis. 2005).

^{400.} Hale v. Jennings Bros. [1938] All ER 532 at 579 (Eng.).

^{405.} E.g., State v. Am. Tobacco Co., No. 94-1429, (Miss. Ch. Ct. May 23, 1994).

^{407.} People v. Atlantic Richfield Co., No. 1-00-CV-788657 (Cal. App. Dep't Super. Ct. Jan. 7, 2014).

firearms and asbestos cases.⁴⁰⁹ What these cases have in common is a violation of a right enjoyed by the public—a right to public health and safety.

Publi	ic Nuisa	nce Fili	ngs				O PCBS	
	O Asbes	tos	O Tobacco	O Lead paint O Firearms O MTBE	O Clima	ate change	O Opio O Drint O Flust O Trans :	ids king water nable wipes 5 Fats
1980	1985	1990	1995	2000	2005	2010	2015	2020
								Bloomberg BNA graphic

Chart 3: Public Nuisance Filings over The Last Four Decades.⁴¹⁰

The most recent use of nuisance in a public health context is the opioid litigation.⁴¹¹ In *State of Ohio v. Purdue Pharma et al.*,⁴¹² the Ohio attorney general sought damages and equitable relief against a myriad of opioid manufacturers⁴¹³ for increased deaths, disability, and medical payments. The reviewing magistrate held that public nuisance is an appropriate remedy when the public health is at stake,⁴¹⁴ referring to *City of Cincinnati v. Deutsche Bank Nat'l Trust Co.*⁴¹⁵ and noting that under Ohio law a common law public nuisance is an "interference with a right common to the general public, [such as] [a] right to public health . . . a right to public safety . . . and

409. BLOOMBERG NEWS, supra note 367.

412. *In re* Nat'l Prescription Opiate Litig., No. 1:18-OP-45604, 2018 WL 4019413 (N.D. Ohio Aug. 23, 2018).

413. See West Virginia ex rel. Morrisey v. McKesson Corp., No. 16-cv-01772, 2017 WL 357307 (S.D.W. Va. Jan. 24, 2016).

414. In re Nat'l Prescription Opiate Litig., 2018 WL 3895865.

415. 863 F.3d 474, 477 (6th Cir. 2017); *see also* Cleveland v. JP Morgan Chase Bank, N.A., 2013 WL 1183332, at *3 (Ohio Ct. App. Mar. 21, 2013) (describing a public nuisance claim as a common law tort action to vindicate interference with a general public right).

Coalition, BUS. WIRE (July 09, 2008), https://www.businesswire.com/news/home/20080709006275/en/Columbus-Ohio-Dismissal-Paint-Lawsuit-Confirms-Litigation (A non-profit group, The Public Nuisance Fairness Coalition, was formed to counter broadened uses of public nuisance).

^{410.} BLOOMBERG NEWS, supra note 367; see also Meier, supra note 404.

^{411.} In re Nat'l Prescription Opiate Litig., 290 F. Supp. 3d 1375, 1375 (U.S. Jud. Pan. Mult. Lit. 2017); see Samuel Fresher, Opioid Addiction Litigation and the Wrongful Conduct Rule, 89 U. COLO. L. REV. 1311, 1311 (2018); but see James K. Holder, Opening the Door Wider: Opioid Litigation and the Scope of Public Nuisance Law, IN-HOUSE DEF. Q. (Spring 2018), at 33 (noting that Orange and Santa Clara, California, Counties also filed opioid public nuisance suits, which were dismissed).

a right to public comfort."⁴¹⁶ Such reasoning amply sustains its use in the present context.

C. Damages: Expanding the Scope

Because the anticipated claim does not revolve around the child's birth or life (wrongful or otherwise), but around the child's present existence and the right to enjoy it,⁴¹⁷ the child conceived with IVF or sperm bank assistance should be able to bring his/her own claim in nuisance, otherwise denied under negligence's wrongful life claim. In addition, the nuisance claim allows a state's public officials to sue on behalf of its citizens,⁴¹⁸ thereby interjecting some governmental oversight. In addition to broadening the universe of eligible plaintiffs, the nuisance claim also broadens allowable damages.⁴¹⁹

1. Discomfort, Unhappiness, and Mental Anguish

While physical, pecuniary, and occasionally significant emotional injury is required to institute a negligence claim, damages in nuisance are also available for a broader array of emotional upsets, including inconvenience, annoyance, or discomfort.⁴²⁰ To be sure, the emotional harms encountered in negligence are not the sort that nuisance typically recognizes. However, distinguishing between the two types of psychological harm is often a matter of semantics.⁴²¹ In addition, it must be noted, the strictures incident to the

^{416.} *In re* Nat'l Prescription Opiate Litig., 290 F. Supp. 3d 1375, 1375 (U.S. Jud. Pan. Mult. Lit. 2017) (quoting City of Cincinnati v. Deutsche Bank Nat'l Trust Co., 863 F.3d 474, 477 (6th Cir. 2017)).

^{417.} Which parallels the requirements of a nuisance claim, the loss of present and future enjoyment, and is a right enjoyed by all.

^{418.} Russo, *supra* note 25, at 1973 (citing Laura King, *Narrative, Nuisance, and Environmental Law*, 29 J. ENVTL. L. & LITIG. 331, 331–32 (2014)).

^{419.} NAACP v. AcuSport, Inc., 271 F. Supp. 2d 435, 496 (E.D.N.Y. 2003).

^{420.} See Hodas, supra note 354, at 896.

^{421.} See Kelly v. CB&I Constructors, Inc., 102 Cal. Rptr. 3d 32, 43 (Cal Ct. App. 2009) ("[A]nnoyance and discomfort damages are distinct from general damages for mental and emotional distress. Annoyance and discomfort damages are intended to compensate a plaintiff for the loss of his or her peaceful occupation and enjoyment of the property. 'We recognize that annoyance and discomfort by their very nature include a mental or emotional component, and that some dictionary definitions of these terms include the concept of distress. Nevertheless, the "annoyance and discomfort" for which damages may be recovered on nuisance and trespass claims generally refers to distress arising out of physical discomfort, irritation, or inconvenience caused by odors, pests, noise, and the like. Our cases have permitted recovery for annoyance and discomfort damages on nuisance and trespass claims while at the same time precluding recovery for "pure" emotional distress.") (internal citations omitted).

negligence type of emotional distress (such as requiring accompanying physical injury) are either relaxed or entirely absent in the nuisance context.

Examining a smattering of cases allowing "softer" psychological damages is instructive. Going back to beginnings, we see allowable damages for the discomfiture suffered from exposure to the "fetid and unwholesome" stench emanating from a neighbor's newly erected pig-sty.⁴²² More recently, in Burns v. Jaquays Mining Corp,⁴²³ the Arizona Court of Appeals held the plaintiffs had a valid public nuisance claim for inconvenience, discomfort, and annovance resulting from exposure to asbestos.⁴²⁴ Emotional distress, which arises out of the inconvenience and discomfiture presented by the nuisance, is, thus, compensable.⁴²⁵ In Hensley v. San Diego Gas & Electric Co.⁴²⁶ the court allowed the plaintiff to recover for his emotional distress as a component of his discomfort and annoyance damages. Such damages included harm arising from stress, worry, the aggravation of Mr. Hensley's suffering as a result of Crohn's disease, lost income, and medical expenses.⁴²⁷ In *Miotke v. City of Spokane*,⁴²⁸ the court allowed the plaintiffs to bring a public nuisance claim and recover for nausea, headaches, nervousness, and insomnia. Some statutes expand the notion further. A Georgia statute, for example, provides that "[a] prevailing plaintiff is entitled to damages for 'discomfort, loss of peace of mind, unhappiness and annoyance.""429

The *Allison* case⁴³⁰ highlights the strong instinct to safeguard our wellbeing holistically as it extends personal injury to mental well-being.⁴³¹ Under this reasoning, even the "yuck" factor attributable to increased risk of incest should be compensable—the mere concern causing mental anguish being the actionable harm. This might be analogous to the cases of *Thomp*-

^{422.} Aldred's Case (1610) 77 Eng. Rep. 816; 9 Co. Rep. 57; *see also* Baker [1975] CLY 2450, at 118; *see* Palmer, *supra* note 371.

^{423.} Burns v. Jaquays Min. Corp., 752 P.2d 28, 32 (Ariz. Ct. App. 1988).

^{424.} See Keating, supra note 24.

^{425.} Webster v. Boone, 992 P.2d 1183, 1185 (Colo. App. 1999). See also Institoris v. City of L.A., 210 Cal. App. 3d 10, 21 (1989) (holding that emotional damages can be recovered in an action for private nuisance, but it must be caused by an interference with a specific property right).

^{426.} Hensley v. San Diego Gas & Elec. Co., 231 Cal. Rptr. 3d 803, 806 (Cal. Ct. App. 2017).

^{427.} Johnny J. Yeh, California Appellate Court Clarifies Availability of Emotional Distress Damages in Nuisance Cases, EMERGENT (May 4, 2017), http://emergent.law/blog/ 2017/5/4/hensley-damages-nuisance-cases.

^{428.} Miotke v. City of Spokane, 678 P.2d 803, 810 (Wash. 1984).

^{429.} GA. CODE ANN. § 41-1-1 (Georgia statutes also provide that, "[n]ominal damages are also recoverable in nuisance cases. A recovery of nominal damages may be sufficient to support an award of attorney fees and punitive damages.").

^{430.} See Allison v. Merton, Sutton & Wandsworth AHA [1975] CL 2450 (Eng.).

^{431.} Palmer, *supra* note 371, at 118.

son-Schwab v. Costak ⁴³² and *Laws v. Florinplace Ltd.*,⁴³³ where proximity of a brothel and a sex shop (respectively) caused mental upset, and the mere presence of those premises was deemed to be actionable.⁴³⁴

Finally, if the injury is severe enough and appropriate, in addition to monetary damages, nuisance claims also allow plaintiffs to seek equitable relief.⁴³⁵ And the fear of being shut down may well motivate sperm banks to upgrade their practices.

2. Increased Risks and Fear Thereof

As one commentator noted, "it is important to understand [that] the judges' interpretation of nuisance doctrine at the birth of modern nuisance law . . . [is] on the grounds essentially of a *risk* to health."⁴³⁶ In other words, the threat or risk of disease brings along with it a fear of disease. Claims where there was a mere *fear* of infection were recognized early on.⁴³⁷ But, the question becomes, is this fear a type of emotional harm that is compensable under nuisance law? Does it arise out of the act itself, or is it a by-product? Since in the situation addressed here, the fear is associated with possessing a defective gene and knowing one may have a genetic (and heritable) defect, I argue the distress arises out of the implantation of the defective sperm itself. Moreover, watching such a child grow up should also allow the mother's recovery under the ambit of the zone of danger rule espoused under negligence theory. Both forms, then, should sustain a claim for the fear of the risk of developing disease, one under nuisance theory, one under negligence law.

But is the increased risk, itself, compensable?

^{432.} Thomas-Schwab v. Costaki [1956] All ER 652; WLR 335 (Eng.) (where the sight of prostitutes entering and leaving the defendant's premises was so offensive as to be actionable in nuisance by a neighboring owner).

^{433.} Laws v. FlorinPlace Ltd. [1981] All ER 659 (Eng.).

^{434.} See Palmer, supra note 371 at 120; see also Ayers v. Township of Jackson, 525 A.2d 287, 291 (N.J. 1987).

^{435.} Akau v. Olohana Corp., 652 P.2d 1130, 1132 (Haw. 1982); see also Hodas, supra note 354, at 886.

^{436.} Palmer, *supra* note 371 at 122 (discussing Aldred's Case (1610) 77 Eng. Rep. 816, 820–821; 9 Co. Rep. 57, 77) (emphasis in original); *see also* Baker [1975] CLY 2450 at 118 (Eng.).

^{437.} See e.g., Petriello v. Kalman, 576 A.2d 474, 481 (Conn. 1990) (enabling recovery for fear-based distress after a negligently performed surgical procedure leading to an 8–16 percent risk of bowel obstruction); see also Debbie E. Lanin, *The Fear of Disease as a Compensable Injury: An Analysis of Claims Based on AIDS Phobia*, 67 ST. JOHN'S L. REV. 77, 77 (1993).

Birth defects occur in approximately 3 percent of live-born babies.⁴³⁸ Some have genetic causes, others are environmentally triggered, and still others require both a genetic and environmental component. In most cases, there is no way to predict which individuals will be subjected to the random risk of being born with a genetic anomaly.⁴³⁹ However, we can predict the percent of people in a population who will succumb to a given disease with a reasonable degree of certainty.⁴⁴⁰ A child who is part of an at-risk population surely will entertain a worry that he or she will be among the afflicted, and, as stated above, should be compensated.

The *Xytex* Saga, then, is not at all akin to *Becker v. Schwartz*,⁴⁴¹ which rejects the child's wrongful life claim⁴⁴² because no child has a right to be born free from disease.⁴⁴³ The Aggeles children face different risks than the Becker child, who succumbed to normal risk of disease. Here, we have children who, by virtue of the malfeasance of the defendant have an *increased* risk of disease—at somewhere between six-to-twenty-fold over background. Further, while parents are required to accept some minimal risk (i.e., 3 percent) of a child born with birth defects, saddling on them the burden of increased costs incident thereto—after enriching the coffers of the errant sperm bank—is plainly unjust. Nevertheless, increased-risk claims have generally been rejected⁴⁴⁴ and hence without more there is little reason to believe they would be honored in the IVF or sperm bank context. ⁴⁴⁵ But there is more.

Evolutionary biology suggests the population gene pool can accommodate a birth defect level of 3 percent. On these expected ("normal") risks,

443. Becker, 386 N.E.2d at 812.

^{438.} *Birth Defects: Data & Statistics on Birth Defects*, CTRS. FOR DISEASE CONTROL AND PREVENTION, http://www.cdc.gov/ncbddd/birthdefects/data.html.

^{439.} See ALEXANDER, supra note 287.

^{440.} Id.

^{441.} Becker v. Schwartz, 386 N.E.2d 807, 812 (N.Y. 1978).

^{442.} The philosopher Prof. David Heyd brilliantly castigates the dicta in *Becker* (wrongfully echoed in *Donovan v. Idant Labs*, 625 F. Supp. 2d 256 (E.D. Pa. 2009)), which sidesteps the wrongful life issue on the grounds that "[w]hether it is better never to have been born at all than to have been born with even gross deficiencies is a mystery more properly to be left to the philosophers and the theologians . . ." ostensibly because judges think they "possess a privileged access to this kind of knowledge." *Becker*, 386 N.E.2d at 812; David Heyd, *Are "Wrongful Life" Claims Philosophically Valid? A Critical Analysis of a Recent Court Decision*, 21 ISR. L. REV. 574, 583 (1986). Heyd claims "that there is really nothing to know here, even for philosophers." *Id.* (citing *Speck v. Finegold*, 408 A.2d 496 (1979)).

^{444.} See Twerski & Henderson, supra note 158, at 817, 818 nn. 9-10, 819, 822.

^{445.} Two cases where increased risk claims were accepted are *Jackson v. Johns-Manville Sales Corp.*, 781 F.2d 394, 412 (5th Cir.), *cert. denied*, 478 U.S. 1022 (1986) and *Gideon v. Johns-Manville Sales Corp.*, 761 F.2d 1129, 1138 (5th Cir. 1985), although in the first present injury was found along with a more likely than not opinion that the plaintiff would go on to develop cancer.

health policy, actuarial data, and insurance quotes are predicated. But the word "risk" here is inapt. While the *individual* may be at an increased *risk* of disease, the *population* is faced with a *certainty* that there will be several times more children born with inherited diseases. In other words, the damage caused by infiltration of the gene pool is not a one-off shot. Society will bear burdens of this damage over successive generations, and hence is harmed now and in the future. As society's representative, Mr. Aggeles' children should be allowed to sue for the *certainty* of increased disease in the population.

3. Medical Monitoring

Threat or risk of harm—and fear of its development—brings a desire for prevention. And here we face the question whether medical monitoring or other prophylactic measures should be compensable.

In Allison v. Merton, Sutton and Wandsworth Area Health Authority,⁴⁴⁶ the plaintiff's sleep was affected by the incessant noise and vibrations from the defendant's boilers to such a degree that she developed depression. She sought an injunction and was successful on the grounds of preserving her mental health.⁴⁴⁷ Injunction is a future-oriented remedy and can be considered a prophylactic measure. Here we see damages allowed on preventative grounds. More recently, the *Burns* court⁴⁴⁸ also allowed claims for medical monitoring on preventative grounds. Although none of the plaintiffs had been diagnosed with asbestos-related diseases, the court ordered the defendant to pay for monitoring, holding that monitoring was necessary to track the potential development of cancer and other asbestos-related diseases.

In Mr. Aggeles' case, we don't know if his condition was geneticallymediated (which could occur either due to mutation or because he inherited the gene).⁴⁴⁹ Testing could prove inconclusive. But the costs (and severity) of the disease—should it arise in his offspring—can be mitigated via monitoring and early intervention,⁴⁵⁰ reducing the risk of severe psychosis.⁴⁵¹ In

^{446.} See Allison v. Merton, Sutton & Wandsworth AHA [1975] C.L. 2450 (Eng.); see also JOHN FINCH SPELLER, LAW RELATING TO HOSPITALS 329 (Springer ed., 2010).

^{447.} Id.; see also Palmer, supra note 371, at 97 n.342.

^{448.} See Burns v. Jaquays Min. Corp., 752 P.2d 28, 33, 156 Ariz. 375, 380, (Ariz. Ct. App. 1988) ("[D]espite the absence of physical manifestations of any asbestos-related diseases . . . the plaintiffs should be entitled [to recover the costs of medical monitoring].").

^{449.} See MUKHERJEE, supra note 246, at 446. ("Familial schizophrenia [as opposed to genetic mutations, which are also inherited] . . . is highly heritable.").

^{450.} In 2008, NIMH launched the *Recovery After an Initial Schizophrenia Episode* (*RAISE*) project for this purpose. *See* Max Marshall & John Rathbone, *Early Intervention for Psychosis*, 6 COCHRANE DATABASE OF SYSTEMATIC REV. 1 (2011).

^{451.} NAT'L COLLABORATING CTR. MENTAL HEALTH, PSYCHOSIS AND SCHIZOPHRENIA IN ADULTS: TREATMENT AND MANAGEMENT 102 (2014).

fact, the National Institute for Health Care and Excellence recommends that a person with "a first-degree relative with psychosis or schizophrenia [should be referred] for assessment *without delay* . . . in an early intervention in psychosis service."⁴⁵² Another preventative measure is avoiding drugs associated with development of the disorder, such as cannabis, cocaine and amphetamines.⁴⁵³ Thus, where a child at risk has an attention deficit disorder, screening might alert physicians not to prescribe otherwise indicated drugs such as amphetamines. In fact, medical monitoring is recognized⁴⁵⁴ in the toxic tort arena⁴⁵⁵ on public health grounds.⁴⁵⁶ "To date, courts in about twenty jurisdictions recognize these claims."⁴⁵⁷ As the court in *Bower v. Westinghouse Electric Corp*⁴⁵⁸ noted:

[T]here is an important public health interest in fostering access to medical testing for individuals whose exposure to toxic chemicals creates an enhanced risk of disease . . . Medical monitoring is appropriate where it can be proven that such expenses are necessary and reasonably certain to be incurred We now reject the contention that a claim for future medical expenses must rest upon the existence of present physical harm. The injury that underlies a claim for medical monitoring—just as with any other cause of action sounding in tort—is the invasion of any legally protected interest.

455. *See, e.g.*, Betts v. Manville Pers. Injury Settlement Tr., 588 N.E.2d 1193, 1218 (Ill. App. 1992) ("Here, the incurring of medical expenses for future monitoring of plaintiffs' conditions is reasonably certain to occur, although the contracting of cancer is not."); Hagerty v. L & L Marine Servs., Inc., 788 F.2d 315, 316 (5th Cir. 1986); Friends For All Children, Inc. v. Lockheed Aircraft Corp., 746 F.2d 816, 818 (D.C. Cir. 1984); *In re* Paoli R. R. Yard PCB Litig., 916 F.2d 829, 852 (3rd Cir. 1990); Ayers v. Jackson, 525 A.2d 287, 314 (N.J. 1987).

456. Bower v. Westinghouse Elec. Corp., 522 S.E.2d 424, 431 (W. Va. 1999) (outlining public policy considerations that favor medical monitoring: "especially in light of the value of early diagnosis and treatment for insidious diseases such as cancer recognizing these claims promotes deterrence by discouraging the irresponsible distribution of toxic substances [E]arly monitoring may prevent or mitigate future illnesses and thus reduce the eventual liability costs to the defendants; and . . . allowing recovery serves "societal notions of fairness and elemental justice" by assuring that plaintiffs "wrongfully exposed to dangerous toxins," but unable to prove that cancer or other disease is likely, may recover when medical surveillance is shown to be reasonable and necessary."); *see* Twerski & Henderson, *supra* note 158, at 843.

457. *But see* Twerski & Henderson, *supra* note 158, at 823–25 (criticizing the state of affairs in asbestos litigation).

458. *Bower*, 522 S.E.2d at 431 (W. Va. 1999) (internal citations omitted) (citing Potter Tire & Rubber Co., 863 P.2d 795, 824 (Cal. 1993)).

^{452.} Id. (emphasis added).

^{453.} Marco M. Picchioni & Robin M. Murray, *Schizophrenia*, 335 BRIT. MED. J. 91, 92 (2007).

^{454.} Andrew R. Klein, *Rethinking Medical Monitoring*, 64 BROOKLYN L. REV. 1, 15 (1998) ("[E]nhanced risk itself is not compensable, but if you demonstrate an increased risk of disease, you can recover medical monitoring costs").

By comparison, redressing public health concerns (including medical monitoring) is ignored in the *Xytex* cases.⁴⁵⁹

VI. BREACH OF FIDUCIARY DUTY: VIOLATING THE PUBLIC TRUST AND THE NATURAL ORDER

In this part, I argue that sperm banks should be held to a fiduciary standard as they have usurped the right to parent—which I claim includes selection of the co-parent. Thus, when the sperm bank erroneously substitutes a different genetic package than selected by the consumer, the sperm bank effectively replaces the biological parent of choice and frustrates the right to co-parental selection (defining biological parent as contributor of one-half the child's genetic package). This part also contains a brief discussion on the concern about eugenics in this context.

A. Interference with Evolutionary Behavior and the Right to Parent

1. The Dating and Mating Dance

Except in cases of rape, in "real-life" (i.e., before technology overtook things), a woman either knew who the father of her children would be because she had met him⁴⁶⁰ or because her parents had selected him, with her, or at least the family's best interests at heart.⁴⁶¹ In cultures which approve of arranged marriages, the lineage of the prospective mate is carefully vetted by the bride and groom's parents to assure no taint of family history of disease. In ancient cultures, the process of the courtship ritual was so intricately choreographed that various qualities of the prospective suitor were displayed. In addition to apparent physical virtues, the courtship ritual enabled a woman to assess the suitor's intelligence, breeding, education, culture, and financial condition.⁴⁶²

This process of intentional selection is designed (and has evolved) to select the "best" candidate for preservation of the gene pool. A "right to

^{459.} See Badillo v. Am. Brands, Inc., 16 P.3d 435, 440 (Nev. 2001) ("Courts have recognized medical monitoring more often as a remedy than as a cause of action."); see also Victor E. Schwartz et al., *Medical Monitoring—Should Tort Law Say Yes*?, 34 WAKE FOREST L. REV. 1057, 1074 (1999).

^{460. &}quot;It used to be so simple. Girl meets boy. Gametes were transferred through plumbing optimized by millions of years of evolution." *Sex and Science*, ECONOMIST, Feb. 18, 2017, at 7, 7.

^{461.} Perhaps this is a reason rape is an acceptable exception in jurisdictions where abortion is otherwise prohibited.

^{462.} See, e.g., Lady Muraski, The Ghost of Courtship Past, ECONOMIST, Dec. 22, 2018, at 68, 68.

parent" has been recognized⁴⁶³ and it can be argued that that right includes the right to select the co-parent. Pre-selection vetting, including getting a "sense" of the potential mate, is part of the process. This "right" is relinquished when anonymity is the rule and reliance is placed on the intermediary—a sperm bank—to vet the candidate and assure his sperm's suitability for fertilization. By confounding the mother's right to choose the biological partner of her child, I claim that the sperm bank has violated her right to parent to her detriment, the child's detriment, and the detriment of the public.

Thus, had Ms. Collins or Ms. Doe or Ms. Zelt or Ms. Norman or any of the other mothers been allowed to meet Mr. Aggeles prior to the impregnation, something that cannot be objectively described, a warning sense that something was amiss might have prevented them from agreeing to accept his sperm, no matter how good-looking he was on paper. This *je ne sais quoi* factor is the essence and what-for of the dating and mating ritual known as courtship. This opportunity is forfeited when anonymous sperm suppliers provide the genetic material. It also inures to the commercial benefit of the sperm bank. (Interestingly, the deprivation of the opportunity to vet the male's gametogenic contribution is often not paralleled when ova are selected. And in the case of selection of a gestational surrogate, the biological parent(s) have a robust opportunity to vet the surrogate).

Truth be told, under "natural" circumstances, women don't always make the best choices to father their children. Nor even in the artfully arranged dance of courtship are intentions always met. Sometimes even there the patency of the process is occluded: witness Cyrano de Bergerac. Nevertheless, under normal circumstances, the number of offspring of the pair is limited, and hence so is any potential population threat. Furthermore, one surmises that potential fathers with serious personality disorders are less likely to enter lasting relationships that "bear fruit" compared to "neurotypicals." ⁴⁶⁴ Even if such a person had a relationship for the purposes of baby-making, the likelihood that any one individual (normal or otherwise) would father thirty-six children in the conventional family setting is highly remote.⁴⁶⁵ Thus, the sperm bank's wrongful insinuation in the process of "par-

^{463.} Goodwin, supra note 18, at 1088.

^{464.} It is to be noted that John Nash, Jr., the Nobel Prize winner in economics, was a diagnosed schizophrenic. He had two children, one of whom has schizophrenia. Dr. Nash's schizophrenic son also has a Ph.D. in math; however, he does not seem to be employed and seems to need constant oversight or care. *See* DISCOVERY CHANNEL, *Beautiful Minds: Interview with John Nash and Son*, https://www.youtube.com/watch?v=SizS1nOOeJg (last visited Oct. 20, 2019).

^{465.} The Guinness record for number of children sired by a man in a family relationship (with multiple wives) was eighty-seven—and even that is an order of magnitude less than the most prolific sperm donors. *Most Prolific Mother Ever*, GUINNESS WORLD REC.,

ent selection" and frustration of that right, should be an additional predicate upon which to saddle sperm banks with liability.

2. The Sperm Bank as a Fiduciary

The active involvement of sperm banks in advertising and marketing specific sperm "products," as was done in the *Xytex* case (i.e., puffing up qualifications and the like), smells of some paternalistic practice wrought on a vulnerable population. One would hope that entering into any medically-oriented relationship confers on the provider a heightened sense of responsibility—something akin to a fiduciary status. Traditionally, a fiduciary relationship exists when one person, often in a position of vulnerability, vests confidence, reliance, and trust in another whose aid, advice, or protection is sought in some matter.⁴⁶⁶ In such a relationship, good conscience requires the fiduciary to act at all times for the sole benefit and interest of the one who trusts.⁴⁶⁷ Shouldn't this description apply to the sperm bank?

Thus, when a prospective mother relegates the biological choice of coparent not to her parents, but to a third party who is reaping a profit for their activities, she similarly expects great care will be taken to ensure that the child is not born with an avoidable problem. Should this not be a right? I therefore argue that consigning this right of vetting to the sperm bank ought to confer on the intermediary some sort of fiduciary status, not only to protect the woman (and her child's) interests, but also to preserve and protect the population gene pool.

Whether the sperm bank wants to insulate itself in a legal matrix, society cannot blind itself to the special relationship that arises by virtue of selling and buying reproductive materials. One would hope that the *quid pro quo* for commodification of genetic material (padding the pockets and purses of sperm bank operators) would be in exchange for some heightened fiduciary-like responsibility. Alas, the courts, in some misguided fashion,⁴⁶⁸ confer on them a misguided immunity under the guise of barring suits for wrongful life/birth.

https://www.guinnessworldrecords.com/world-records/most-prolific-mother-ever (last visited Jun. 19, 2018).

^{466.} *Breach of Fiduciary Duty*, RESTATEMENT (THIRD) OF TORTS: LIAB. FOR ECON. HARM § 20 TD, Westlaw (database updated October 2019) (factors generally militating toward a finding of a fiduciary relationship "generally consist of trust and reliance on the fiduciary by another, and often a degree of control by the fiduciary over the other party's person, property, or affairs").

^{467.} Hospital Products Ltd. V. United States Surgical Co. (1984) 156 CLR 41 (Austl.); *see also* Breen v. Williams (1996) 186 CLR 71 (Austl.) (referencing medical records access).

^{468.} See generally Karla FC Holloway, *Private Bodies, Public Text: Race, Gender, and a Cultural Bioethics*, DUKE U. PRESS (2011) 27–66 (referencing the antecedents of reproductive protectionism and paternalism in American legal history).

The protected status enjoyed by the bloated sperm bank industry should be contrasted with defendant-manufacturers in toxic-tort cases. The travesty of this disparity becomes apparent when comparing the two situations. Chemically-related harms are accommodated—even when injury has not yet manifested—by allowing medical monitoring in toxic tort cases.⁴⁶⁹ In the IVF/sperm bank context, we have an increased risk of being born with a genetic anomaly akin to increased risk of cancer in toxic torts, except instead of the increased risk caused by a manufacturer with whom the plaintiff has no direct relationship, the harm is caused by an entity—the sperm bank—which has a direct, and I argue, fiduciary-like, relationship⁴⁷⁰ with the child's mother. But by virtue of legal mumbo-jumbo, i.e., couching the cases as arising out of wrongful birth/life rather than focusing on the resultant harm (or alternatively the defendant's malfeasance), the courts cocoon the sperm bank defendant from liability.

B. A Word About Eugenics

The issue of genetic tampering raises hackles and concern about eugenics,⁴⁷¹ as has happened when sperm banks screen sperm or IVF facilities employ preimplantation genetic diagnostics.⁴⁷² Whether persons have the right to interfere with natural genetic selection is precisely the issue. According to bio-ethicist Professor Jonathan Glover, only when the State interferes with genetic selection as a matter of policy does the eugenics issue arise.⁴⁷³ Further, the opportunity to select the genetic contribution for our child from the opposite sex is precisely the reason for the "dating and mating" ritual discussed above. How different is selecting traits in an offspring via choice of a gamete different from choice of a mate who manifests these genes in the flesh? Here, I argue that when third parties (e.g., sperm banks) insinuate themselves into the genetic selection process—and reap a profit along the way—the law must be made to have some solutions for ensuing problems. A full discussion of the matter, though, remains for further discussion.⁴⁷⁴

^{469.} See supra text accompanying note 452.

^{470.} See CAHN, supra note 2, at 21–24; see also Mothew v. Bristol & W. Bldg. Soc'y [1996] EWCA (Civ) 533 (Eng.).

^{471.} See DAAR, supra note 48.

^{472.} See BBC NEWS, supra note 31.

^{473.} Jonathan Glover, *Choosing Children: Genes, Disability, and Design*, OXFORD U. PRESS (2006).

^{474.} Other related issues abound. These include cases where deaf parents wanted their children to bear a gene for deafness, so their children should be like them. Because the transfer is intentional, it is unclear whether it is wrongful, unethical, or neither. See Kristen Rabe Smokensky, Creating Children with Disabilities: Parental Tort Liability for Preimplantation Genetic Interventions, 60 HASTINGS L.J. 299, 309 (2008); see also Sofia Yakren, "Wrongful

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VII. CONCLUSION

This article examines the most serious sperm bank generated harms, focusing on causing children with heritable defects to be born.⁴⁷⁵ I demonstrate here for the first time that these harms transcend merely violating the personal goals of the parent and rights of the child. Rather, the greater harms I delineate also damage society by saddling it with additional health costs (and legal costs in the case of switched embryos) and impairs the population gene pool.

I also identify sperm bank practices which foster such harms, including anonymity of sperm suppliers. This practice compounds the problem by encouraging less than candid responses on screening questionnaires. Together with uneven regulation and lax enforcement which invites sperm suppliers to father hundreds of children, these practices set the stage for multiple children with heritable genetic errors to be born. Lack of adequate screening—the last clear chance to prevent transmission of heritable diseases—brings the problem to the clear and present danger level. These practices are ripe for regulation. However, such a solution will not be quick in coming.

Until enforceable regulations are available globally, sperm banks must be held accountable for the harms that result, even if non-negligent-both to protect the public and redress individuals. This article introduces the novel concept of incorporating claims for private use of public nuisance theory to accomplish this end. I suggest here that when sperm banks implant gametes and embryos with genetic anomalies, they violate the right to parent (which I argue includes the right to choose a biological parental partner or his genes) and breach the duty not to impair the public health. Even when the mishap occurs from non-negligent practices, nuisance law dictates the harm must be redressed. Thus, where the parent has been deprived of the opportunity to vet the donor and is induced to rely on the sperm bank's representations, that parent should be compensated for harms that ensue. Certainly, the genetically impaired child is injured-knowing his or her genetic makeup includes a time bomb putting her/him at a greater risk than children born in the ordinary course of events-and should be compensated as well. Nuisance theory, a harm-driven approach, broadens the class of plaintiffs eligible to sue to include parent, child, and even public official; expands the available damages to cover medical monitoring, fear, and other soft harms; and allows for punitive damages which can act as a deterrent.

Birth" Claims and the Paradox of Parenting a Child with a Disability, 97 FORDHAM L. REV. 583 (2018).

^{475.} Is this different than causing children to be born with heritable defects for which there is a remedy? Tangentially, another serious harm is switched embryos which generates custody disputes.

Finally, I advocate a holistic approach,⁴⁷⁶ utilizing three legal modalities functioning in tandem: regulation, tort claims, and multiple enforcement mechanisms. Tort-based claims provide a more rapid means and higher level of recompense than regulation alone, thereby motivating sperm banks to self-regulate. I suggest that once the sperm bank industry realizes it can no longer bury their mistakes by settlement of dubious negligence claims,⁴⁷⁷ it will institute more sensitive quality control and assurance procedures that will mitigate the lesser harms as well.

^{476.} See generally MORTIMER & MORTIMER, supra note 57 (recommending processes of troubleshooting, benchmarking, and risk and quality management alongside regulation, licensing, and accreditation for IVF laboratories); see also Matts Wikland & Cecilia Sjblom, *The Application of Quality Systems in ART Programs*, 166 MOLECULAR & CELLULAR ENDOCRINOLOGY 3, 4–7 (2000) (describing a fully implemented quality-control system in an IVF laboratory); Dov Fox & Alex Stein, *Dualism and Doctrine*, 90 INDIANA L.J. 975, 991 (2005).

^{477.} See, e.g., Paretta v. Med. Offices for Human Reprod.,760 N.Y.S.2d 639, 641–42 (N.Y. Sup. Ct. 2003). Similarly, the lone reported *Doe v. Xytex* case that was not dismissed outright, also settled, generating a host of other settlements along with it. No. C 16-02935 WHA, 2016 WL 3902577 (N.D. Cal. July 19, 2016); see also Heled, supra note 38; John Kennedy, *Xytex Settles Claims Over Poorly Screened Sperm Donor*, LAw360 (Oct. 26, 2017), https://www.law360.com/articles/978521/xytex-settles-claims-over-poorly-screened-sperm-donor; and Lindstrom, supra note 14.