Aborted Human Fetal Tissue in Vaccines: Ethical and Legal Considerations amid the Race to a COVID-19 Vaccine*

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ABSTRACT: For over fifty years, aborted human fetal tissue has been instrumental to the development and mass production of vaccines commonly administered to children. Several candidates in the race to develop a COVID-19 vaccine also utilize aborted human fetal tissue cell lines. Leading scientists involved in vaccine development openly affirm the dependency of their medical breakthroughs upon aborted (even vivisected) human fetuses and defend this practice by appealing to utilitarian ethics. Informed consent, both as an ethical principle and as a legal guarantee, generally affords competent adults the right to conscientiously refuse medical treatment and, to some degree, the right also to refuse on behalf of their minor children. Although the Jacobson (1905) ruling strongly favors the state's authority to mandate vaccination, subsequent developments in fundamental rights jurisprudence should tilt the balance in favor of conscientious pro-life objections to abortion-derived vaccines. In the context of a pandemic emergency, however, the exercise of those rights may entail involuntary isolation or quarantine for thirty days or longer. In addition to asserting the rights to conscience, religious liberty, and bodily integrity, those who object to receiving an abortion-derived vaccine would also do well to expose the false assumption that nothing but a vaccine can protect the population against contagious disease.

ACCINES PLAY A FUNDAMENTAL ROLE in modern public health. Widespread beliefs regard vaccines as the crucial factor that determined the decline of polio, measles, and numerous other ailments across the globe during the mid to late twentieth century. 1 Most nations of the

^{*} Portions of this essay were previously published in a .pdf handout for a Lutherans for Life webinar on the same topic, at: www.intoyourhandsllc.com/research/vaccines/226.

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¹ Meredith Wadman, The Vaccine Race: Science, Politics, and the Human Costs

world, and all fifty states within the United States, mandate vaccination for children. Some jurisdictions apply the mandate so strictly as to deny philosophical or religious exemptions to parents who conscientiously object.² Although some physicians and parents have raised concern about harmful side-effects such as SIDS, autism, or other vaccine injuries, U.S. public policy has largely deflected those concerns into the Vaccine Injury Compensation Program, by which a consumer-funded trust pays out court-awarded damages to vaccine victims while the industry remains immune, both legally and financially.³

Meanwhile, the pro-life community has focused its public outcry upon abortion and physician assisted-suicide, apparently unaware that many vaccines depend directly upon abortion for their development and mass production. When presented with evidence, pro-life advocates have been slow to accept both the factual conclusion that aborted human fetal tissue is integral to modern vaccines and the ethical conclusion that this material complicity in abortion renders vaccination morally problematic.⁴ However, the factual component rests firmly upon the testimony of vaccine scientists themselves. It is clearly not a fabricated or exaggerated claim invented by fringe "antivaxxers." Similarly, the ethical conclusion (namely, that as a result of their material involvement in abortion, vaccines are morally suspect) also rests upon

of Defeating Disease (New York NY: Viking, 2017).

² National Conference of State Legislatures, "States With Religious and Philosophical Exemptions From School Immunization Requirements" (June 26, 2020), https://www.ncsl.org/research/health/school-immunization-exemption-state-laws.aspx.

³ Anna Kirkland, *Vaccine Court: The Law and Politics of Injury* (New York NY: New York Univ. Press, 2016).

⁴ This has been my personal experience from conversations with pro-life leaders since I began raising questions about the connection between aborted human fetal tissue and vaccinations about twenty years ago. Even today, the website for National Right to Life does not index vaccination on its sitemap: www.nrlc.org/sitemap, accessed July 14, 2020. Neither does the Family Research Council: www.frc.org/abortion. A search for "vaccine" on the Americans United for Life website returns no results: https://aul.org/?s=vaccine. A revised search for "vaccination" (https://aul.org/?s= vaccination) yields a few articles including that keyword, but none addressing the controversial connection between aborted human fetal tissue and vaccines. Recently, however, the American Life League has published an article on this topic: Debi Vinnedge (from Children of God for Life), "Vaccines from Abortion: Time to Report the Truth!," May 23, 2019, https://all.org/vaccines-from-abortion-time-to-report-the-truth.

well-established arguments in philosophical and theological ethics that undermine the utilitarian reasoning promoted by certain vaccine defenders. The legal implications of these factual and moral claims cut both ways: on the one hand, the principle of informed consent suggests that patients should have the right to know which vaccines were produced from human fetal tissue and then to opt out (and likewise, that parents could opt their children out); on the other hand, the Supreme Court has long recognized that the state has legitimate power to require vaccination.

This article will summarize how vaccines are made, demonstrating from reputable medical journals the integral role that aborted (even vivisected) human fetuses have played in the development and mass production of many standard vaccines. Next, the principle of informed consent will be discussed, both as an ethical norm and as a legal standard, including specific applications to the emergence of a COVID-19 vaccine (several candidates for which are being derived from human fetal tissue cell lines). The aim is to suggest how pro-life conscientious objectors may navigate the likelihood of a pandemic vaccine mandate entangled with abortion.

The Integral Role of Aborted Human Fetal Tissue in Vaccine Development and Mass Production

For over fifty years, aborted human fetal tissue has been instrumental to the development and mass production of vaccines commonly administered to children. Leading scientists involved in vaccine development openly affirm the dependency of their medical breakthroughs upon aborted human fetal tissue. To reveal the connection between vaccine manufacturing and abortion, three

⁵ See, for example, René Balák, "Never-ending History of the Use of Vaccines Derived from Aborted Infants," 2 pts., *Roczniki Teologiczne*, 64/3 (2017): 75-92; and ibid., 65/3 (2018): 101-16. This pair of articles critiques both utilitarianism and the attempted application of the principle of double effect, with particular focus on the justification for the use (although not the development) of abortion-derived vaccines expressed by the Pontifical Academy for Life. See "Note on Italian Vaccine Issue," July 31, 2017, www.academyforlife.va; cp., Congregation for the Doctrine of the Faith, *Dignitas Personae*, June 20, 2008, esp. at paras. 35ff., www.vatican.va.

⁶ To my knowledge, the only previously publication that has similarly provided a detailed account drawn from reputable scientific and medical sources is Tanya Foster, *Abortion, the Human Fetal Cell Industry, & Vaccines*, white paper, 2019, www.avoice fortruth.org.

questions will be address sequentially: How are vaccines made? What is the connection between vaccines and aborted human fetal tissue? Is the abortion-vaccination connection just a thing of the past? For each question, the answer will be drawn primarily from reputable scientific sources, including especially the principal researchers involved in major vaccine development breakthroughs.

How Are Vaccines Made?

The following outline of seven stages has been adapted, with some modifications for the sake of simplicity for a lay audience, from a summary prepared by Leonard Hayflick, who played a central role in using the WI-38 fetal tissue to develop the MMR vaccine, among others.⁷

- (1) Identification: Which virus is the cause of this disease? For example, in the case of measles (the typical symptoms of which are a fever and rash that last for several days), the "measles virus" has been identified as the cause.
- (2) Isolation: The virus must be separated from any other virus, impurities, etc.
- (3) Attenuation: The virus must be weakened so that it can be used in a vaccine in such a way as to prompt the body's immune response for the development of antibodies that match the virus, but without overpowering the body's immunity, since that overpowering would result in the person getting sick with the disease.
- (4) Propagation: The virus, now weakened, must be propagated so that a large enough supply is available for making enough doses of the vaccine to serve the target population hundreds of millions of people, eventually even billions of people.
- (5) Manufacturing and Testing: The virus, now weakened and propagated, must be combined with other ingredients that serve to preserve the virus, to convey the virus into the recipient's bloodstream, to awaken an immune response in the recipient, to hold the ingredients together, etc. Before being

⁷ S.J. Olshansky and L. Hayflick, "The Role of the WI-38 Cell Strain in Saving Lives and Reducing Morbidity," *AIMS Public Health* 4/2 (2017): 127-38, esp. at 130.

⁸ Some of those "excipients," or non-viral ingredients, include toxins (such as mercury and aluminum) and allergenic food (such as peanuts and eggs), but these controversies are distinct from the controversy over aborted human fetal tissue.

administered large-scale, it is tested first on animals and then on human subjects.

- (6) Distribution: Government guidelines and government mandates encourage or require people to receive vaccines, as does the advice of most healthcare providers. Doctor's offices, pharmacy clinics, workplace clinics, and other stations administer vaccines to the public.
- (7) Reception: Federal law requires that patients have informed consent, a two-step requirement involving both information concerning risks and benefits (such as provided on CDC fact sheets and FDA product inserts) and consent (which must be voluntary, never coerced).

The Connection between Vaccination and Aborted Human Fetal Tissue

A consortium of thirty-one scientific societies representing over 130,000 researchers asserted in 2017 that "[f]etal tissue remains a critical resource to further researchers' understanding of how human tissues develop and are effected by disease. Critical scientific advances – such as the development of vaccines against polio, rubella, measles, chickenpox, adenovirus, and rabies, and treatments for debilitating diseases such as rheumatoid arthritis, cystic fibrosis, and hemophilia – depend upon research using fetal tissue."

The following relationships between aborted human fetal tissue and vaccines have been identified chiefly from peer-reviewed articles published in scientific and medical journals, including those authored by the principal investigators who developed the bulk of mainstream vaccines that are administered both in the United States and worldwide. The same seven-step process identified above will serve as the outline here.

- (1) Identification: Fetal tissue is generally not involved.
- (2) Isolation: Some viruses were isolated by harvesting human fetal tissue through the abortion of babies thought to be infected. For example: "The [human] fetus was surgically aborted 17 days after the maternal illness [rubella] and dissected immediately. Explants from several organs were cultured and successful cell growth was achieved from lung, skin, and kidney.

⁹ Letter from the Federation of American Societies for Experimental Biology to U.S. House Committee on Appropriations (September 5, 2017), www.faseb.org.

All cell strains were found to be carrying rubella virus."10

In an attempt to isolate the rubella virus, 16 out of 40 aborted fetuses subjected to dissection (or vivisection) ultimately yielded tissue that tested negative for the disease, and thus their abortion was not helpful to scientific research after all. Had each mother realized that her child-in-the-womb was healthy, perhaps she would not have elected to have a "therapeutic abortion" in the first place.¹¹

- (3) Attenuation: The virus is cultured in human fetal cell strains, while cooling the temperature below normal human body temperature. The virus adapts to the lower temperature and loses its adaptation to the normal body temperature. Hence, the virus will be weak when introduced later to a recipient whose body temperature is normal, since that will be too warm for the virus's new comfort zone. This will give the recipient's immune system a comparative advantage in making antibodies that thwart the weakened, or attenuated, virus before the virus can result in a full infection. For example, the rubella virus, isolated in the Wistar RA 27/3 human fetal strain, was attenuated in the WI-38 human fetal strain in 1969; the leading vaccine producer Merck uses this as the basis for the MMR vaccine today. 12
- (4) Propagation: Whether before or after attenuation, the virus is cultured in human fetal cell strains for mass-production. Unlike alternatives (monkey tissue, chicken tissue, etc.), human fetal tissue was discovered in the 1960s to have a lower risk of pollution with viruses other than the target virus for which the vaccine is being developed and a lower risk of the formation of tumors, while also having the ability to propagate for 50 or so "passages" (each "passage" is roughly equivalent to one cell population doubling), and to be frozen and thawed as needed in order to stretch the useful life of the culture from the 1960s into the 2000s, as noted here:

¹⁰ Stanley A. Plotkin, David Cornfeld, and Theodore H. Ingalls, "Studies of Immunization With Living Rubella Virus," *American Journal of Diseases of Children* 110/4 (1965): 381-89, at 382.

¹¹ T.H. Chang, et al., "Chromosome Studies of Human Cells Infected *In Utero* and *In Vitro* With Rubella Virus," *Proceedings of the Society for Experimental Biology and Medicine* 122/1 (1966): 236-43, at 238.

¹² Stanley A. Plotkin, "Attenuation of RA 27/3 Rubella Virus in WI-38 Human Diploid Cells," *American Journal of Diseases of Children*, 118 (1969): 178-85; Merck, MMR Product Insert, rev. May 2017, www.fda.gov.

Since the early 1960s, the vast majority of human virus vaccines have been grown in WI-38 [cell cultures from aborted human fetal tissue] or its derivatives, making its discovery and continued use a critical innovation in the historical chain of events required for vaccine development.¹³

Researchers have compared "primary cell populations," "cell strains," and "cell lines" from both human fetuses and non-human organisms in search for the "ideal" tissue: rapid and long-term propagation, with minimal risk of extraneous viruses or tumors. Scientists assert that human fetal cell strains have proven to be by far the best candidate. ¹⁴ The researchers have been able to

demonstrate the efficacy of an attenuated poliovirus vaccine produced in an entirely different in vitro system. This system involves the use of human fetal diploid cell strains as a substrate for virus multiplication.... All human fetal diploid cell strains were originally obtained from fetal organs by fragmentation of tissue with paired forceps in a Petri dish.... One of the most attractive features of the human diploid cell strains is the fact that, theoretically, literally tons of cells can be raised or stored [frozen] as viable seed stock at low temperatures from a single tissue source.... This total potential cell yield is equal to 2×10^7 metric tons of cells. ¹⁵

This harvest [from aborted human fetal tissue containing rubella virus] was inoculated on stationary WI-38 diploid lung fibroblasts [i.e., tissue from another aborted human fetus], to initiate infection in these cells.¹⁶

Three types of human embryonic brain tissues from embryos of 2 1/2 to 4 1/2 months as well as from a premature infant of 7 months' gestation were used.... Subcultures of fresh tissue were prepared.... Cultures of intestinal tissue were prepared with fragments from the entire intestine of human embryos, except in one experiment in which jejunum

¹³ Olshansky and Hayflick, "The Role of the WI-38 Cell Strain," 130.

¹⁴ L. Hayflick, S. Plotkin, and R. E. Stevenson, "History of the Acceptance of Human Diploid Cell Strains as Substrates for Human Virus Vaccine Manufacture," *Developments in Biological Standardization* 68 (1987): 9-17.

¹⁵ Leonard Hayflick, et al., "Preparation of Poliovirus Vaccines in a Human Fetal Diploid Cell Strain," *American Journal of Hygiene [Epidemiology]* 75/2 (1962): 240-58, at 240, 242, 256.

¹⁶ Plotkin, Cornfeld, and Ingalls, "Studies of Immunization," 382.

of a premature infant was used.¹⁷

Human embryos of two and one-half to five months gestation were obtained from the gynaecological department.... No macerated specimens were used, and in many of the embryos the heart was still beating at the time of receipt in the virus laboratory.... It would appear that viral proliferation definitely occurred in these organs [human fetal lung tissue].... There is no doubt that virus proliferated [in human fetal kidney tissue].... One of our interests in this field lies in investigating the possibilities of preparing large quantities of virus suitable for use as a vaccine. 18

We obtained 9 fetuses. [The one from which we developed Walvax-2] was obtained from a 3-month old female fetus aborted because of the presence of a uterine scar from a previous caesarean birth by a 27-year old healthy woman.¹⁹

Contrast the preceding medical plan with a pro-life standard of care: a scheduled C-section about 2–3 weeks prior to full-term, to avoid the dangers of labor contractions rupturing a previously compromised uterus.

Walvax-2 is promising because it is able to be propagated more rapidly, more times, and with fewer incidents of tumor production than other human fetal tissues that have been used for vaccine production: "The fetal tissue was provided...by induction of labor with the water bag method." (This method involves an injection of water into the uterus immediately prior to induction of labor; the water pressure facilitates the expulsion of the amniotic sac, presumably preserving the fetus for vivisection. The tissues from the

¹⁷ John F. Enders, Thomas H. Weller, and Frederick C. Robbins, "Cultivation of the Lansing Strain of Poliomyelitis Virus in Cultures of Various Human Embryonic Tissues," *Science* 109 (1949): 85-87, at 86.

¹⁸ Joan C. Thicke, "Cultivation of Poliomyelitis Virus in Tissue Culture, Pt. I: Growth of the Lansing Strain in Human Embryonic Tissues," *Canadian Journal of Science and Medicine* 30/3 (1952): 231-45, at 232, 237, 239, 243.

¹⁹ Bo Ma, et al., "Characteristics and Viral Propagation Properties of a New Human Diploid Cell Line, Walvax-2, and Its Suitability as a Candidate Cell Substrate for Vaccine Production," *Human Vaccines and Immunotherapeutics* 11/ 4 (2015): 998–1009, at 999.

²⁰ Bo Ma, et al., "Characteristics and Viral Propagation Properties of a New Human Diploid Cell Line, Walvax-2," 1006.

²¹ Pia-chao Chen, "China's Population Program at the Grass-Roots Level," Studies

freshly aborted fetus were immediately sent to the laboratory for the preparation of the cells."²²

(5) Manufacturing and Testing: the culmination of steps (2), (3), and (4).

Rubella virus isolated from an aborted human fetus and grown in human diploid lung cells [from another aborted fetus] (WI-38) was used to induce infection in children.... The clinical illness induced was mild in all children. [That is, they were able to recover readily, suggesting that in the process they gained antibodies to become immune from future infections, just as one intends with a vaccine.]²³

(6) Distribution: Human DNA traces are detectable in vaccines. The FDA's vaccine excipient summary identifies "trace quantities" of the following aborted human fetal tissue cell strains in the following mainstream vaccines administered in the United States²⁴:

WI-38 (female aborted at 12 weeks): Adenovirus, MMR (MMR-II), MMRV (ProQuad, i.e., MMR plus Chickenpox), Varicella/Chickenpox (Varivax)

MRC-5 (male aborted at 14 weeks): DTaP-IPV/Hib (Pentacel), DTPP (Quadracel), Hep A (Vaqta), Hep A/Hep B (Twinrix), MMRV (ProQuad), Rabies (Imovax), Varicella/Chickenpox (Varivax), Shingles (Zostavax). *Note*: The U.S. presently has no approved alternatives for the above-mentioned abortion-entangled vaccines against Adenovirus, Chickenpox, Hepatitis A, or MMR, although some of these are available in more ethical forms in other nations.

"HAVRIX [Hepatitis A Vaccine] also contains residual MRC-5 cellular proteins." ²⁵

in Family Planning 4/8 (1973): 219-27, at 227n.

²² Bo Ma, et al., "Characteristics and Viral Propagation Properties of a New Human Diploid Cell Line, Walvax-2," 1006.

²³ Plotkin, Cornfeld, and Ingalls, "Studies of Immunization," 389.

²⁴ Chiefly extracted from: CDC, "Vaccine Excipient & Media Summary," rev. Feb. 2015, www.cdc.gov. Starting with the Jan. 2019 revision, the CDC has omitted "substances used in the manufacture of a vaccine but not listed as contained in the final product (e.g., culture media)," such as WI-38 and MRC-5. Ibid., rev. Jan. 2019.

²⁵ FDA, Highlights of Prescribing Information: HAVRIX (Hepatitis A Vaccine), rev. March 2012, www.fda.org.

At least one vaccine lot has mutant human DNA, traceable to the original fetal cell strains:

The human reference genome was found to be matched by 99.76% reads from vaccine DNA.... The human fetal DNA presented in this vaccine is a single entire genome, that means the vaccine contains genomic DNA with all the chromosomes of a male individual (in fact MRC-5 originates from a male fetus).... The human genomic DNA contained in the Priorix lot vaccine. n. A71CB256A is evidently anomalous, presenting important inconsistencies if compared to a typical human genome, i.e. the one of a healthy human being. There are several unknown variants (not noted in public databases) and some of them are located in genes involved in cancer.²⁶

In summary, routine compliance with the CDC's recommended childhood vaccination schedule inject children with traces of aborted human fetal tissue 9 times in the first year of life.²⁷

(7) Reception: Standards for informed consent are compromised when the "information" provided does not fully and accurately disclose the relevant facts, as when ingredient lists are revised to omit excipients.²⁸

Having explained how vaccines are made, and demonstrated that aborted human fetal tissue has been integral to the development and mass production of several mainstream vaccines commonly administered to children, a third question also merits attention – namely, was all this just a thing of the past, or is the abortion-vaccination connection ongoing?

Is the abortion-vaccination connection just a thing of the past?

No. Industry-leading scientists have based their careers upon prior abortions-for-vaccine-development and have made their intentions clear to continue to harvest tissue from new abortions: "Demand for his [Hayflick's] human fetal cells soared when the landmark paper was published."²⁹

²⁶ Corvelva, "Vaccinegate: MRC-5 contained in Priorix Tetra–Complete Genome Sequencing," 2019, pp. 2, 6, www.corvelva.it.

 $^{^{27}}$ CDC, "Table 1. Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2020," www.cdc.gov, comparing those vaccines to the WI-38 and MRC-5 incipient lists noted earlier.

²⁸ See n24 above.

²⁹ Meredith Wadman, *The Vaccine Race: Science, Politics, and the Human Costs of Defeating Disease* (New York NY: Viking, 2017), 83, referring to Hayflick, "The

Beating the competition to a rubella vaccine would mean a big new market for a product that would be much in demand ... 3.6 million children born annually in the mid-1960s or the roughly 39 million girls and women then of childbearing age – mounted to a huge number of customers.³⁰

On account of the diminishing supply of WI-38 cells, the MRC-5 line has become the most widely used cell strain.... [But, as of the year 2015] MRC-5 cells [are] in the 32nd and 33rd passages, which have therefore already reached the limit required...(the 33rd passage is the last cell doubling that could be used in the production)..... Therefore the intention of this study [Walvax-2] is to develop a completely new HDCS [human diploid cell strain] ... that could be used in the manufacturing of viral vaccines.³¹

Human fetal tissue is used for many other medical projects, aside from vaccine development.³²

Recapitulation: The Use of Aborted Human Fetal Tissue in Vaccines

Vaccines commonly administered to children have involved and likely will continue to involve aborted human fetal tissue as an integral component to their development and mass production. The fact concerning the past is undeniable; its projection into the future rests upon the openly stated intentions and ongoing research summaries of leading scientists in the field. Vaccines and abortion are inextricably linked – not merely *accidentally* (as if it just so happens that history worked out this way) but *materially*, *teleologically*, and arguably *essentially* (the unique properties of human fetal tissue are precisely

Serial Cultivation of Human Diploid Cell Strains," *Experimental Cell Research* 25 (1961): 585-621, which describes the use of human "fetal" and "embryonic" tissue in the WI-1 series and beyond.

³⁰ Wadman, *The Vaccine Race*, 189, in reference to Merck's quest for the rubella vaccine in the 1960s.

³¹ Bo Ma et al., "Characteristics and Viral Propagation Properties of a New Human Diploid Cell Line, Walvax-2," 999.

³² Brief of Amici Curiae Fetal Tissue Researchers, Scientists, Physicians, Medical and Legal Ethicists and Academics in Support of Plaintiff-Appellee, *National Abortion Federation v. Center for Medical Progress, Biomax Procurement Services LLC, David Daleiden, aka Robert Daoud Sarkis, and Troy Newman*, Case No. 16-15360, U.S. Ct. of Appeals for the Ninth Circuit, filed June 7, 2016. This brief contains a 450-page appendix of scientific studies and science news articles detailing the myriad uses of human fetuses for medical research.

what have made vaccine development and mass production possible).

For the bulk of those vaccines that are routinely administered to American children, this general definition holds: A vaccine is a preventative drug produced from an infectious virus that has been attenuated and propagated on living cells extracted from one (or more) aborted/vivisected human(s) for the benefit of other human persons.

The Race to the COVID-19 Vaccine and the Conscientious Right to Refusal

According to a live-update webpage hosted by the *New York Times*, over 100 vaccines against COVID-19 are in pre-clinical development, with fifteen in Phase I trials (small group), eleven in Phase II trials (hundreds of subjects), four in Phase III trails (thousands of subjects), and one vaccine approved, as of July 13, 2020, for limited use in China.³³ As the U.S. Dept. of Health and Human Services announced, the Trump administration intends to accelerate the testing and approval process, aiming to have 300 million doses ready to dispense within the United States by January 2021, an initiative dubbed "Operation Warp Speed."³⁴ It is difficult to imagine that a streamlined process for development and testing provide just as much assurance of safety and effectiveness as the pre-COVID FDA protocol. Clearly the "warp speed" model diminishes the "information" that otherwise would be available for informed consent to be satisfied at time of vaccine administration. If, as planned, 300 million Americans receive a COVID vaccine in 2021, then this will constitute the largest medical experiment in human history.

Depending upon which candidate wins the vaccine "race," Operation Warp Speed may also be the grandest dispensation of abortion-derived injections in human history. Several contenders in the "race" to develop a COVID-19 vaccine involve human fetal tissue cell lines: human embryonic kidney cells (HEK-293T), explored as a replication tissue³⁵; a related strain of human embryonic kidney cells (HEK-293), in development by three distinct

³³ "Coronavirus Vaccine Tracker," www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html, accessed July 13, 2020.

³⁴ HHS, "Trump Administration Announces Framework and Leadership for 'Operation Warp Speed'," May 15, 2020, www.hhs.gov.

³⁵ Jennifer Harcourt, "Severe Acute Respiratory Syndrome Coronavirus 2 from Patient with Coronavirus Disease, United States," *Emerging Infectious Diseases* 26/6 (June 2020): 1266-73,at 1269.

programs in China, Britain, and the United States³⁶; and human embryonic retinal cells (PER.C6), in development by two programs in the United States.³⁷

Some politicians and scientists are critical of current federal policy, which limits the use of public funding for research involving human fetal tissue. In 2019, the Trump administration ended funding for human fetal tissue research within federal agencies and imposed a stricter ethical review process before allowing federal funds to support such research conducted by other institutions. Some lawmakers have urged that Trump would reinstate federal support for human fetal tissue research, especially for the development of a COVID vaccine. The attorneys general of fifteen states wrote to President Trump on March 26, 2020, urging him to allow federal funding for human fetal tissue research in order to develop a COVID vaccine. Their letter, couched in utilitarian rhetoric, claimed that "science," the American Medical Association's Code of Ethics, and the necessities of the current pandemic emergency all support human fetal tissue research and that only something as petty as "politics" would oppose this. 40

The pressure, then, is strong toward developing a vaccine quickly, testing it quickly, mass-producing it quickly, and doing so at all costs — with few scientists willing to think twice about the ethical integrity of involving aborted human fetal tissue in the process. Indeed, the more vocal scientists do not merely excuse but celebrate the utilitarian value of abortion-derived tissue.⁴¹

Even if their utilitarian arguments are to be accepted, the principle of

³⁶ James L. Sherley and David Prentice, "An Ethics Assessment of COVID-19 Vaccine Programs" (May 6, 2020), www.lozierinstitute.org, revised June 19, 2020.

³⁷ Sherley and Prentice, "An Ethics Assessment of COVID-19 Vaccine Programs."

³⁸ Alexandra Desanctis, "The Ethics of Vaccine Research Using Tissue from Aborted Fetuses," *National Review* (April 23, 2020).

³⁹ Christina Marcos, "House Democrats Call on Trump Administration to Lift Restrictions on Fetal Tissue for Coronavirus Research," *The Hill* (April 6, 2020), www.thehill.com.

⁴⁰ California Attorney General Xavier Becerra, et al., to President Donald J. Trump, et al., (March 26, 2020).

⁴¹ For example, Stanley Plotkin, M.D., has testified under oath, acknowledging his involvement in research that utilized about 70 human fetuses for vaccine-production, affirming that the fetuses had developed normally up until the point of abortion, and stating that he is an atheist who will gladly go to hell for these actions. See https://www.youtube.com/watch?v=NACBHtFMllA.

informed consent requires that physicians tell patients the truth about vaccines and defer to patient choice (and for minors, parental choice) as a matter of ethics. As a matter of law, the situation is less clear, on account of the *Jacobson* ruling that affirmed the state's power to mandate vaccines a century ago plus the more recent trend among state legislatures rescinding parental rights to vaccine choice.

The Helsinki Declaration, adopted by the World Medical Association in 1964 and revised most recently in 2013, has included informed consent among the necessary ethical safeguards for human subjects research. ⁴² Informed consent corresponds closely to the principle of "autonomy" advanced by Tom Beauchamp and James Childress in their book *Principles of Biomedical Ethics* (1979) and the parallel concept of "respect for persons" brought to the forefront of American public policy by the Belmont Report (1979). ⁴³ Patient autonomy and informed consent shaped the development of federal and state laws regulating medical practices during the 1970s and beyond. In general, an adult has a right to be informed and to either accept or decline to start or continue treatment and also to do similarly on behalf of his or her minor children.

Congress passed the Swine Flu Act of 1976 after significant discussion in the Senate concerning informed consent safeguards. The Act authorized public funding for a massive vaccination program while also requiring an "informed consent form and procedures for assuring that the risks and benefits from the swine flu vaccine are fully explained to each individual to whom such vaccine is to be administered." In 1980, the U.S. Court of Appeals for the District of Columbia held that this requirement for informed consent applied for the protection of military personnel and civilians alike. ⁴⁴ In 1984, the U.S. Court of Appeals for the Eighth Circuit ruled that vague information concerning general risks does not adequately constitute the "information"

⁴² World Medical Association, "Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects," *Journal of the American Medical Association*, 20 (2013): 2191-94.

 $^{^{43}} HSS, Belmont\,Report, 1979, https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html.$

⁴⁴ The act is described and quoted in *Hunt v. United States*, 636 F.2d 580, 596 (D.C. Cir. 1980).

required for informed consent.⁴⁵ Pharmaceutical companies bore the responsibility to communicate the risks of specific side effects.

As complaints alleging vaccine injury mounted, Congress shifted liability away from pharmaceutical companies by enacting the National Childhood Vaccine Injury Act (NCVIA) in 1986. Henceforth, a trust funded by a tax on vaccines would provide the means for paying out damage claims awarded by special masters, serving as judges, in the U.S. Court of Federal Claims. Meanwhile, pharmaceutical companies would be able to manufacture new vaccines, without fear of liability for what became known as "unavoidably unsafe" preventative healthcare. 46 To date, \$4.4 billion has been awarded to 7,311 plaintiffs. 47 However, the majority of complaints filed fail to satisfy the requisite burden of proof or to fulfill procedural requirements. In addition, by shifting the financial responsibility from the manufacturer to the consumerfunded trust, the NCVIA also reshaped the culture of expectations. For example, in 1992, a federal appellate court ruled that Merck, the manufacturer of the MMR vaccine, had fulfilled its duty to inform patients of vaccine risks by reasonably expecting that the CDC's fact sheets would adequately communicate the pertinent details to parents.⁴⁸

Today, courts continue to grant serious consideration to claims that informed consent was lacking, but complaints of vaccine injury often are hindered by the plaintiff's procedural errors such as untimely filing or filing in an inappropriate jurisdiction. ⁴⁹ When lawsuits are filed in a timely fashion within the proper jurisdiction, informed consent bears substantial weight. Consider, for example, the still-unfolding saga of *Pacheco v. United States*. After a woman who scheduled an appointment to receive the Depo-Provera

⁴⁵ Petty v. United States, 740 F.2d 1428 (8th Cir. 1984).

⁴⁶ Bruesewitz v. Wyeth LLC, 562 U.S. 223, 234 (2011).

⁴⁷ Health Resources and Services Administration, "Data and Statistics" (rev. June 1, 2020), https://www.hrsa.gov/vaccine-compensation/data/index.html.

⁴⁸ Mazur v. Merck & Co., 964 F.2d 1348, 1369 (3d Cir. 1992).

⁴⁹ Bosh v. United States, 2019 WL 6115016 (W.D. Wash, 2019) (acknowledging that compulsory vaccination after the patient's refusal of consent constituted a wrongful administration of vaccination, but dismissing the case for lack of jurisdiction); *Chicos on behalf of LC v. Sec'y of Health & Human Servs.*, 2019 WL 7560247 (Fed. Cl., 2019) (acknowledging the *prima facie* plausibility of the plaintiff's complaint for not receiving full information concerning vaccine risks prior to consent, but dismissing the case due to expiration of the statute of limitations).

birth control shot was injected instead with the flu vaccine, she filed a lawsuit alleging "wrongful birth" and "wrongful death," seeking, among other damages, compensation for medical expenses. Because the outcome of the case would hinge upon the factual question of whether the practitioner had obtained informed consent for the actual injection that was administered, the court dismissed a motion for summary judgment in order to ensure a trial for determining the evidence surrounding informed consent. ⁵⁰

The case is still pending resolution, but for purposes of this article it suffices to demonstrate the central importance of informed consent to the lawful administration of vaccines. So important is informed consent in American law that even pet owners have a right to it. A federal district court upheld a state veterinary board's 25-year probationary action against a veterinarian who had administered rabies vaccines without, among other faults, obtaining informed consent from the pets' owners.⁵¹

For adults, the right to refuse medical treatment has receive robust protection in federal courts. Ostensibly, courts have identified four state interests that may limit the medical autonomy of competent adults, a four-prong test dating back to the Massachusetts Supreme Court's 1977 ruling *Belchertown State Sch. v. Saikewicz*: (1) preservation of life; (2) protection of third parties; (3) prevention of suicide; and (4) maintaining medical ethics. In practice, however, lower courts have seldom – and federal appellate courts have never – ruled that any particular case warranted the invocation of one or more of those principles as a trump card against the common-law right of medical autonomy for competent adults, buttressed also by Fourteenth Amendment jurisprudence. ⁵² Simply put, the consensus among federal judges

⁵⁰ Pacheco v. United States, 2017 WL 714198 (W.D. Wash., 2017). The matter has not yet been resolved by trial; see, for example, the court's ruling one of the more recent motions: *Pacheco v. United States*, 2020 WL 3050143 (W.D. Wash., June 8, 2020).

⁵¹ Charter Practices Int'l. LLC v. Robb. 2017 WL 4366717 (D. Conn., 2017).

⁵² Ronald B. Standler, "Legal Right to Refuse Medical Treatment in the USA" (29 July 2012), www.rbs2.com/rrmt.pdf. Standler catalogs pertinent case law until 2012. In July 2020, I searched Westlaw for cases decided subsequent to Standler's research and discovered that aside from instances in which an adult was deemed mentally incompetent or was held in state custody, federal appellate courts and the U.S. Supreme Court have consistently upheld the *Cruzan* principle that a competent person has a constitutionally protected liberty interest in refusing medical treatment, even to the

is that an adult competent enough to make any other decision also has the right to refuse medical treatment.

The same near-absolute right to medical autonomy recognized for adults does not apply so readily to children, nor even to parents whose right to make other decisions on behalf of their children remains beyond question. In explaining an American Academy of Pediatrics position statement (1976, rev. 1995) on informed consent, the AAP Committee on Bioethics suggested in 2016 that parents' fiduciary responsibility toward their children's health outweighs parents' right to autonomous decision-making, noting that even if "parents generally are better situated than others to understand the unique needs of their children," the doctrine of parens patriae holds that "the state also has a societal interest in protecting the child or young adult from harm and can challenge parental authority."53 Although federal courts typically have favored the right of mentally competent adults to refuse medical treatment for religious reasons, the AAP "endorses that children, regardless of parental religious beliefs, deserve effective medical treatment when such treatment is not overly burdensome and is likely to prevent substantial harm, serious disability, or death."54

Regarding religiously motivated parental refusals to vaccinate their children, another AAP position statement (1997) strongly recommended childhood vaccination but conceded the right of parents to refuse on behalf of minor children: "The AAP does not support the stringent application of medical neglect laws when children do not receive recommended immunizations." The state (or state-licensed medical doctors) and parents are not, however, the only parties when it comes to adolescent healthcare decision-making. Some states provide statutory medical autonomy for children starting around age 14, and case law generally acknowledges a sliding scale of maturity for informed consent by adolescents. For example, courts have granted children between the ages of 14 and 17 the right to religiously motivated

point of refusing life-saving hydration and nutrition. See *Cruzan v. Missouri Dept. Health*, 497 U.S. 261 (1990).

⁵³ Aviva L. Katz and Sally A. Webb, "Informed Consent in Decision-Making in Pediatric Practice," *Pediatrics* 138/2 (2016): e5.

⁵⁴ Katz and Webb, "Informed Consent," e7.

⁵⁵ AAP Committee on Bioethics, "Religious Objections to Medical Care," *Pediatrics* 99/2 (1997): 279-81, at 279.

refusal of blood transfusions or cancer treatment.⁵⁶ It would stand to reason, therefore, that the "maturity doctrine" by which courts afford adolescents the right to medical autonomy may cut both ways: a high school student might opt in or might opt out of vaccination, for religiously motivated or for any other reason, regardless of whether his parents agree or disagree.

Consistent with the preceding analysis, one may reasonably expect three trends to continue if and when a COVID-19 vaccine becomes available and mandated: (1) competent adults will retain their long-standing and near-absolute right to opt out; (2) parents who decided to opt their children out should not be prosecuted for medical neglect (as the AAP previously stated); and, (3) minor children deemed mature (roughly, 14 to 17 years of age) also may in some jurisdictions be permitted to opt out of vaccination – whether in the absence of parental involvement or even in opposition to parental wishes to the contrary.

A decision not to be vaccinated, even if protected by federal case law, may nonetheless leave the conscientious objector subject to other restrictions. For example, Minnesota statute recognizes a "a fundamental right to refuse...vaccination," but also empowers the commissioner of health to isolate infected persons and to quarantine persons reasonably believed to have been exposed to infected persons.⁵⁷ Statutory provisions for due process guarantee a court hearing within 72 hours of the restricted person's request and limit the isolation/quarantine to 21 days under an ex parte court order, 30 days under a court order arising from a hearing requested by an isolated/quarantined party, or longer only if extended by a subsequent court order. 58 Similarly, state statute recognizes a "fundamental right to refuse...vaccination" in the context of a peacetime emergency declared by executive order (such as the COVID-19 pandemic), but again anyone "who refuses to submit...may be ordered by the commissioner to be placed in isolation or quarantine according to [same due process] parameters [as apply in the absence of a state of emergency]."59 In practical terms, adults may be faced with the choice of consenting to be injected with a vaccine derived from aborted human fetal tissue or else

⁵⁶ Katz and Webb, "Informed Consent," e11.

⁵⁷ Minn. Stat. 144.419.

⁵⁸ Minn. Stat. 144.4195.

⁵⁹ Minn. Stat. 12.39, which references both 144.419 and 144.4195.

remaining in involuntary home confinement until the executive terminates, the legislature rescinds, or the judiciary nullifies the health commissioner's vaccination authority.

The executive and legislative options fall under the "political question" doctrine, meaning the courts allow broad discretion to elected officials and the voters to whom they are responsible. Generally speaking, this means there are no other rules of the game, so long policymakers do not run afoul of the Due Process or Equal Protection clause of the Fourteenth Amendment, which federal courts typically construe as inclusive – by the doctrine of "incorporation" – of other fundamental guarantees listed in the Bill of Rights, such as religious liberty. The judiciary, ideally standing aloof of politics, would examine the issue solely as a matter of constitutional rights, without second-guessing the state's preferred theories of medical science. The controlling precedent for state-mandated vaccination remains to this day an antique ruling, *Jacobson v. Massachusetts* (1905), but reasonable arguments can be advanced to overturn *Jacobson*'s strong deference to policymakers.

In Jacobson, the U.S. Supreme Court upheld a mandatory vaccination policy as a legitimate use of state police power in the public of interest of health and safety. In line with what later would be called the "political question" doctrine, the Court relegated to the democratic process the determination of which scientific or medical theory should be adopted for the basis of public policy, regardless of how cogent alternative theories may be, and regardless of whether the adopted theory later were to be proven false. 60 The Court identified only two potential justifications for judicial nullification: "if a statute purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relation to those objects [the substantial relation test], or is, beyond all question, a plain, palpable invasion of rights secured by the fundamental law [fundamental rights test], it is the duty of the courts to so adjudge, and thereby give effect to the Constitution."61 With respect to the Massachusetts law requiring vaccination against smallpox in 1905, the Court found that the democratic process had sufficient discretion to conclude that smallpox was a reasonable threat and that mandatory vaccination was a reasonable remedy; finding that no fundamental

⁶⁰ Jacobson v. Massachusetts, 197 U.S. 11, 30, 35 (1905).

⁶¹ Jacobson v. Massachusetts, 197 U.S. 11, 31 (1905).

right was violated by the mandate, the Court ruled in favor of the state.⁶² As recently as May 29, 2020, the U.S. Supreme Court has applied the *Jacobson* standard when upholding pandemic executive orders that limit the liberties of individuals and groups in the name of public health and safety.⁶³

However, three of nine justices joined in dissent in that case, *South Bay United Pentecostal Church v. Newsom*. The dissenting justices emphasized that the church in question has a fundamental right to religious liberty to which the Court must afford heightened-scrutiny protection. Although the dissent did not unpack the details, the case law it cited suffices to suggest a fuller outline of the concise argument: in the century following *Jacobson*, the Court has developed a substantial body of fundamental rights jurisprudence according to which the state's limitation of fundamental rights may be upheld only if the state satisfies the burden of proving that its restriction of liberty serves not merely a legitimate interest but a compelling interest, is not haphazardly restrictive but narrowly tailored, and is not merely a reasonable means but the least restrictive means toward the stated end. In other words, the protection of "fundamental rights" is today far more robust than in 1905, which means that *Jacobson* no longer can be applied so simplistically as it formerly was.

Unfortunately, however, the lineage of cases in which fundamental rights jurisprudence has reached its most potent formulation protects neither religious liberty respecting one's pro-life convictions nor the right of medical refusal concerning injections derived from aborted human fetal tissue. Rather, the *Griswold-Roe-Casey* sequence establishing abortion as a woman's fundamental right has proved pivotal in federal court rulings that prevent states from excluding abortion as an "essential" service when the rest of the economy must be shutdown to mitigate the spread of contagion. It would be the most pathetic of ironies if the Court continues to protect the right of a woman to abort her child because she has a fundamental right to "privacy" under *Griswold*, which encompasses abortion under *Roe*, and extends even her own metaphysical assumptions about "the mystery of human life" under *Casey*, without permitting another competent adult the right to refuse to be injected

⁶² Jacobson v. Massachusetts, 197 U.S. 11, 38 (1905).

⁶³ South Bay United Pentecostal Church v Newsom, 140 S.Ct. 1613 (2020).

 $^{^{64}}$ Teresa Collett, "John Paul II, Women, Abortion, and COVID 19," keynote address, University Faculty for Life (June 6, 2020).

with a concoction derived from the fetus that this woman aborted.⁶⁵ To deny also a parent, who elected not to abort, the right to refuse on behalf of a minor child an injection derived from the tissue of another child, whose parent did elect to abort, only compounds the injury to conscience.

Perhaps conscientious objectors will have no other legal recourse than to petition the courts for protection under the Americans with Disabilities Act. The ADA bars both public authorities and private businesses that serve the general public from denying reasonable accommodations for services to any person on the basis of an actual or perceive disability. Infection with a contagious disease, such as tuberculosis, has qualified under the ADA. A reasonable case can me made for a supposed COVID infection to similarly qualify a person. Might an otherwise healthy person whom the state classifies as putatively contagious and quarantines indefinitely, simply for refusing a vaccine, file an ADA complaint for discrimination? How dystopian would it be, if those whose sincerely held religious beliefs enable them to discern with sharper clarity the violation of conscience involved in mandatory abortion-derived vaccination, must be classified as disabled, desparately hoping that those who adhere wholeheartedly to the culture of death would show them some mercy?

⁶⁵ Griswold v. Connecticut, 381 U.S. 479, 484 (1965) ("[S]pecific guarantees in the Bill of Rights have penumbras, formed by emanations from those guarantees that help give them life and substance."); Roe v. Wade, 410 U.S. 113, 129, 153 (1973) ("Appellant would discover this right in the concept of personal 'liberty' embodied in the Fourteenth Amendment's Due Process Clause; or in personal marital, familial, and sexual privacy said to be protected by the Bill of Rights or its penumbras.... This right of privacy, whether it be founded in the Fourteenth Amendment's concept of personal liberty and restrictions upon state action, as we feel it is, or, as the District Court determined, in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy."); Planned Parenthood of Southeastern Pennsylvania v. Casey, 505 U.S. 833, 851 (1992) ("At the heart of liberty is the right to define one's own concept of existence, of meaning, of the universe, and of the mystery of human life. Beliefs about these matters could not define the attributes of personhood were they formed under compulsion of the State.").

⁶⁶ Frank Griffin, "COVID-19 and Public Accommodations under the Americans with Disabilities Act: Getting Americans Safely Back to Restaurants, Theatres, Gyms, and 'Normal'," preliminary expedited version, *St. Louis University Law Journal*, 65, no. 2 (forthcoming).

Epilogue: The Reasonableness of Conscientious Objection

To those who know nothing of the soul, a utilitarian preservation of postnatal bodies may seem to be the highest good toward which humanity should strive. But – even conceding for a moment the prevailing materialist assumptions concerning human nature – a logical argument remains for securing the right to refuse vaccination in the face of a pandemic. One simply must expose the fallacy behind the Olshansky-Hayflick syllogism that mainstream medicine and its political patrons endorse:

Premise 1: The health of the world's population depends upon vaccines.

Premise 2: Vaccine research and mass-production depends upon human

fetal tissue, including new sources from new abortions.

Conclusion: Therefore, the health of the world's population depends upon

the continuation of abortion and human fetal tissue research.⁶⁷

Note that premise (1) is false insofar as alternatives to vaccines exist, such as⁶⁸ preventing and/or treating illness through: clean water supplies (e.g., for diarrhea-inducing illness⁶⁹ and for cholera⁷⁰), adequate intake of Vitamins A (e.g., measles⁷¹), C (e.g., pertussis⁷²), and D (e.g. influenza⁷³); homeoprophy-

⁶⁷ Summarizing, in syllogistic form, from Olshansky and Hayflick, "The Role of the WI-38 Cell Strain," *AIMS Public Health* 4/2 (2017): 127-38.

⁶⁸ As the phrase "such as" implies, the following examples and the research articles cited for their support are but a sampling of the alternatives represented in the medical literature.

⁶⁹ Ahmad Komarulzaman, et al. "Clean Water, Sanitation and Diarrhea in Indonesia: Effects of Household and Community Factors," *Global Public Health*. 12/9 (2017): 1141-55.

⁷⁰ "Our model found that efforts to distribute clean water may avert 105,000 cases and 1,600 deaths, more than the individual impacts of antibiotics or vaccines." Jason R. Andrews and Sanjay Basu, "The Transmission Dynamics and Control of Cholera in Haiti: An Epidemic Model," *Lancet* 377 (April 9, 2011): 1248-55.

⁷¹ Gregory D. Hussey, "A Randomized, Controlled Trial of Vitamin A in Children with Severe Measles," *New England Journal of Medicine* 323 (1990): 160-64. More recent studies reveal that a double dose may be necessary for the intended effect, and that no adverse effects result. For example, Christopher R. Sudfeld, "Effectiveness of Measles Vaccination and Vitamin A treatment," *International Journal of Epidemiology* 39, sup. 1 (2010): 48-55.

⁷² Suzanne Humphries, MD, "Sodium Ascorbate Treatment of Whooping Cough,"

laxis (for a broad array of illnesses⁷⁴); and, natural immunity. As for natural immunity, consider that low-level infection from drinking surface-derived water (rather than modern city water) during childhood may confer immunity advantages against enteric infections (such as *Cryptosporidium parvum*) later in life⁷⁵; that natural recovery from diseases typically produces life-long or at least long-term immunity, whereas immunity induced by vaccination typically requires a booster shot; that about 80% of COVID cases are either asymptomatic or mild⁷⁶; and, that about 60% of the residents in a hard-hit Italian province now have COVID antibodies.⁷⁷

Moreover, premise 2 is also false, insofar as at least some vaccines have been developed without any direct dependency upon abortion. A minority of

Orthomolecular Medicine News Service (April 6, 2018), www.orthomolecular.org. (This is a peer-reviewed publication, with numerous MDs serving on the editorial board, but beyond the mainstream of conventional modern medicine.)

⁷³ Johan Moan, et al. "Influenza, Solar Radiation and Vitamin D," *Dermato-Endocrinology* 1/6 (2009): 307-09.

⁷⁴ Anupriya Chaudhary and Anil Khurana, "A Review on the Role of Homoeopathy in Epidemics with Some Reflections on COVID-19 (SARS-CoV-2)," Indian Journal of Research in Homeopathy 14 (2020): 100-09; Isaac Golden, "Large Scale Homooprophylaxis: Results of Brief and Long-Term Interventions," American Journal of Homeopathic Medicine 112/1 (2019): 31/36. For an insightful comparison between vaccination and homeoprophylaxis, see Carol-Ann Galego, "Immunizing Communities: The Biopolitics of Vaccination and Its Historical Alternative," Ph.D. diss., Memorial University of Newfoundland, 2017. "In the case of immunizing communities, the observation that we may actually need continual exposure to pathogens in order to build robust immunity is a humbling one. It points to the hubris of the modern quest for immunity, which denies the essential symbiotic relationships through which we acquire our strength" (p. 254). She was alluding to the contrasting assumptions behind natural immunity acquired through strong nutrition and supplemented by homeoprophylaxis, versus artificial immunity acquired through vaccination while aiming to avoid as many naturally occurring pathogens as possible and considering nutrition less relevant.

⁷⁵ Floyd J. Frost, et al., "How Clean Must Our Drinking Water Be: The Importance of Protective Immunity," *The Journal of Infectious Diseases*, 191/5 (2005): 809-14.

⁷⁶ World Health Organization, "Coronavirus Disease 2019 (COVID-19) Situation Report–46," March 6, 2020, www.who.int.

⁷⁷ Kashmira Gander, "Coronavirus Antibodies Found in Almost 60 Percent of People Tested in Italian Province Hit Hard by COVID-19," *Newsweek* (June 9, 2020).

childhood vaccines currently administered in the United States are not derived from human fetal tissue.⁷⁸ Several of the American vaccines that are derived from human fetal tissue are available in other nations in forms that are not derived from human fetal tissue.⁷⁹ Indeed, some vaccine candidates in the COVID-19 research pipeline similarly avoid the abortion connection.⁸⁰

Stated more positively, these refutations of premises 1 and 2 establish an alternative conceptualization of the public health emergency, by which we can recognize that the substantial relation test under *Jacobson* is only loosely satisfied by the populist hypothesis of *sola vaccinatio* (only a vaccine can save civilization). As noted earlier, well-established medical facts speak otherwise: immunity does not require vaccination and vaccination does not require abortion. Therefore, immunity can, as a matter of medical science, be achieved apart from abortion, and well it should, as a matter of ethics. This article has revealed that the leading scientists in the vaccine industry have tended to promote abortion-dependent vaccination as if that is the only means of saving (postnatal) lives. Sound reasoning, by contrast, requires that we bring their fallacies to the surface, scrutinize their assumptions, and then seek an alternative, and moral, means toward the good end of promoting human health.

This reasoned evaluation not only speaks to a secular audience in a way that overtly religious pro-life advocacy generally cannot, but it also reveals that genuine appeals to conscience need not involve solipsistic retreats from the public square. In contrast to the postmodern impostor of conscience — a subjective, existential will to power — the Stoic, Christian, medieval, and early modern conscience is symphonic with the voice of reason, sight reading and again rehearsing from the same manuscript — a score written into nature by the same Composer and testifying to the same truth, to the same goodness, and to the same beauty. Outside of the church, there can be no greater guide.

⁷⁸ For a concise summary, based on pertinent fact sheets from the CDC and FDA, see: Michigan Right to Life, "Vaccines, Abortion, & Fetal Tissue," *Life Notes* (Nov. 13, 2018), www.rtl.org.

⁷⁹ Again, Michigan Right to Life, "Vaccines, Abortion, & Fetal Tissue," for a concise list.

⁸⁰ Sherley and Prentice, "An Ethics Assessment of COVID-19 Vaccine Programs."