

No. 19-_____

IN THE

Supreme Court of the United States

THOMAS E. DOBBS, M.D., M.P.H., IN HIS OFFICIAL
CAPACITY AS STATE HEALTH OFFICER OF THE
MISSISSIPPI DEPARTMENT OF HEALTH, *et al.*,

Petitioners,

v.

JACKSON WOMEN'S HEALTH ORGANIZATION,
ON BEHALF OF ITSELF AND ITS PATIENTS, *et al.*,

Respondent.

**On Petition for Writ of Certiorari to the
United States Court of Appeals
for the Fifth Circuit**

PETITION FOR A WRIT OF CERTIORARI

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June 15, 2020

QUESTIONS PRESENTED

1. Whether all pre-viability prohibitions on elective abortions are unconstitutional.
2. Whether the validity of a pre-viability law that protects women's health, the dignity of unborn children, and the integrity of the medical profession and society should be analyzed under *Casey's* "undue burden" standard or *Hellerstedt's* balancing of benefits and burdens.
3. Whether abortion providers have third-party standing to invalidate a law that protects women's health from the dangers of late-term abortions.

PARTIES TO THE PROCEEDING

Petitioners are Thomas Dobbs, M.D., M.P.H., in his official capacity as State Health Officer of the Mississippi Department of Health, and Kenneth Cleveland, M.D., in his official capacity as Executive Director of the Mississippi State Board of Medical Licensure.

Respondents are Jackson Women's Health Organization, on behalf of itself and its patients, and Sacheen Carr-Ellis, M.D., on behalf of herself and her patients.

LIST OF ALL PROCEEDINGS

U.S. Court of Appeals for the Fifth Circuit, No. 18-60868, *Jackson Women's Health Organization v. Dobbs*, judgment entered December 13, 2019.

U.S. District Court for the Southern District Mississippi, No. 3:18-cv-171, *Jackson Women's Health Organization v. Dobbs*, final judgment entered November 20, 2018.

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DECISIONS BELOW

The district court's decision granting Respondents' motion for summary judgment is reported at *Jackson Women's Health Org. v. Carrier*, 349 F.Supp.3d 536 (S.D. Miss. 2018) and reprinted at Pet. App.4a-55a. The district court's orders granting Respondents' motions for temporary restraining order and to limit discovery, Pet.App.58a-63a, are not reported.

The Fifth Circuit's ruling is reported at *Jackson Women's Health Org. v. Dobbs*, 945 F.3d 265 (5th Cir. 2019) and reprinted at Pet.App.1a-37a. The Fifth Circuit's order denying Mississippi's petition for rehearing en banc, Pet.App.38a-39a, is not reported.

STATEMENT OF JURISDICTION

On December 13, 2019, the Fifth Circuit issued its opinion affirming the district court's grant of summary judgment to Respondents, and on January 17, 2020, the Fifth Circuit denied rehearing en banc. The district court had jurisdiction under 28 U.S.C. §§ 1331 and 1343(a)(3) and the Fifth Circuit under 28 U.S.C. § 1292(a)(1). On March 19, 2020, Justice Alito extended the time to file a petition for a writ of certiorari to June 15, 2020. This Court has jurisdiction under 28 U.S.C. § 1254(1).

PERTINENT CONSTITUTIONAL AND STATUTORY PROVISIONS

This case involves United States Constitution amendment XIV, § 1, and Mississippi's House Bill 1510, Pet.App.65a-74a.

INTRODUCTION

In 2018, Mississippi enacted the Gestational Age Act. The law protects the health of mothers, the dignity of unborn children, and the integrity of the medical profession and society by allowing abortions after

15 weeks' gestational age only in medical emergencies or for severe fetal abnormality. These interests are well supported by medical science:

- Any surgical abortion taking place after 15 weeks' gestation carries inherent medical threats to the mother. The risk of a mother's death from abortion at 16 to 20 weeks' gestation is 35 times more likely than at eight weeks, and the relative risk of mortality increases by 38% for each additional week at higher gestations.
- It is undisputed in the medical literature that a human fetus develops neural circuitry capable of detecting and responding to pain by 10–12 weeks after the last menstrual period (LMP). At 14–20 weeks, spinothalamic circuitry develops that can support a conscious awareness of pain. Accordingly, during the time the Act covers, the human fetus is likely capable of conscious pain perception in a manner that becomes increasingly complex over time.
- The Act appropriately regulates inhumane procedures. It prohibits abortions six weeks *after* a fetus's basic physiological functions are all present, five weeks *after* the child's vital organs begin to function, and three weeks *after* the child can open and close his or her fingers, make sucking motions, and sense stimuli from outside the womb.

Given these important interests, Mississippi's Gestational Age Act brings into sharp focus the conflict between this Court's suggestion that states cannot prohibit pre-viability abortions, *Roe v. Wade*, 410 U.S. 113, 163–65 (1973), and the Court's repeated admonition that states have legitimate interests "*from the outset*

of the pregnancy in protecting [1] the health of the mother and [2] the life of the fetus that may become a child,” *Gonzales v. Carhart*, 550 U.S. 124, 145 (2007) (citing *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 846 (1992) (emphasis added)), and [3] avoiding “coarsen[ing] society to the humanity of not only newborns, but all vulnerable and innocent life,” *id.* at 157 (cleaned up). Because of that conflict, “good reasons exist for the Court to reevaluate its jurisprudence.” *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 (8th Cir. 2015).

First, “the Court’s viability standard has proven unsatisfactory.” *Id.* at 774. As Justice O’Connor explained, “potential life is no less potential in the first weeks of pregnancy than it is at viability or afterward. . . . The choice of viability as the point at which the state interest in potential life becomes compelling is no less arbitrary than choosing any point before viability or any point afterward. . . . [T]he State’s interest in protecting potential human life exists throughout the pregnancy.” *City of Akron v. Akron Center for Reproductive Health*, 462 U.S. 416, 461 (1983) (O’Connor, J., dissenting). See also *id.* at 458 (viability rule is “on a collision course with itself”).

Second, a strict viability line ties “a state’s interest in unborn children to developments in obstetrics, not to developments in the unborn. This leads to troubling consequences for states seeking to protect unborn children.” *MKB Mgmt.*, 795 F.3d at 774.

For example, in the 1970s, Mississippi could not have prohibited abortion of a 24-week-old fetus because that fetus would not have been viable. Today, Mississippi could enact such a law. Tomorrow, development of an artificial womb will inevitably move the “viability” line to the moment of conception. “How it is consistent with

a state's interest in protecting unborn children that the same fetus would be deserving of state protection in one year but undeserving of state protection in another is not clear." *Ibid.*

Third, imposing an inflexible viability standard eviscerates "the states' ability to account for 'advances in medical and scientific technology [that] have greatly expanded our knowledge of prenatal life.'" *Ibid.* (quoting *Hamilton v. Scott*, 97 So. 3d 728, 742 (Ala. 2012) (Parker, J., concurring specially)). These advances include new knowledge that "a baby develops sensitivity to external stimuli and to pain much earlier than was" believed at the time of *Roe. McCorvey v. Hill*, 385 F.3d 846, 852 (5th Cir. 2004) (Jones, J., concurring). See also *Bryant v. Woodall*, 2017 WL 1292378, at *7 (M.D.N.C. Apr. 7, 2017) (allowing discovery to "show that an infant *in utero* begins to feel pain quite probably by the twenty-week gestational age point") (cleaned up).

Mississippi attempted to introduce these advances below. But the district court disregarded them as irrelevant considering the viability standard. Yet "if courts were to delve into the facts underlying *Roe* . . . with present-day knowledge, they might conclude that the woman's 'choice' is far more risky and less beneficial, and the child's sentience far more advanced, than the *Roe* Court knew." *McCorvey*, 385 F.3d at 852 (Jones, J., concurring).

In light of all the foregoing, this Court was right when it acknowledged three decades ago that it could "not see why the State's interest in protecting human life should come into existence only at the point of viability, and that there should therefore be a rigid line allowing state regulation after viability but prohibiting it before viability." *Webster v. Reproductive*

Health Servs., 492 U.S. 490, 518 (1989). This case is an ideal vehicle to make that acknowledgment a holding and reconsider the bright-line viability rule.

This case also presents an opportunity to reconcile *Casey* and *Whole Women’s Health v. Hellerstedt*, 136 S. Ct. 2292 (2016), specifically, this Court’s conflicting statements regarding the test to apply when analyzing the validity of a pre-viability law that protects women’s health, the dignity of unborn children, and the integrity of the medical profession and society.

In *Casey*, the Court said such a law must yield when it imposes an “undue burden,” i.e., “a substantial obstacle in the path of a woman seeking an abortion before the fetus attains viability.” 505 U.S. at 878. In *Hellerstedt*—without overruling *Casey*—the Court did not consider whether the burden of “increased driving distances” was a substantial obstacle but instead weighed that burden against the law’s benefits. 136 S. Ct. at 2313. What’s more, the Court required the state to *prove* those benefits. *E.g., id.* at 2314. As a result, the *Hellerstedt* analysis was akin to strict scrutiny, a standard that *Casey* rejected in favor of the undue-burden standard because states have significant, legitimate reasons for regulating abortion. *Casey*, 505 U.S. 873–79. As with the Court’s conflicting statements regarding viability, this case is an ideal opportunity to resolve the confusion.

To be clear, the questions presented in this petition do not require the Court to overturn *Roe* or *Casey*. They merely asks the Court to reconcile a conflict in its own precedents.¹ “It is troubling enough to many

¹ If the Court determines that it cannot reconcile *Roe* and *Casey* with other precedents or scientific advancements showing a compelling state interest in fetal life far earlier in pregnancy than

Americans of good faith that federal courts, without any basis in constitutional text or original meaning, restrict the ability of states to regulate in the area of abortion.” Pet.App.37a (Ho., J., concurring). But it is downright demeaning to states and their role in the federalist system to not know in advance how courts will evaluate the validity of their laws protecting mothers, unborn infants, and the medical community and society.

Finally, this case provides the Court with yet another opportunity to clarify its third-party standing doctrine in the abortion context. Abortion clinics and providers should not be excluded from having to satisfy the same rigorous third-party standing requirements as litigants in any other matter.

For all these reasons, Mississippi respectfully requests that the Court grant the petition.

STATEMENT OF THE CASE

A. Mississippi HB 1510

In 2018, the Mississippi Legislature passed House Bill 1510, the “Gestational Age Act.” Miss. Gen. Laws 2018, ch. 393 (codified at Miss. Code Ann. 41-41-191). The law protects the health of the mother, the dignity of the unborn child, and the integrity of the medical profession by allowing abortions after 15 weeks’ gestational age only in medical emergencies or severe fetal abnormality. Pet.App.65a-74a. Governor Phil Bryant signed the bill into law on March 19, 2018, and it took effect immediately.

those cases contemplate, the Court should not retain erroneous precedent. *Smith v. Allwright*, 321 U.S. 649, 665 (1944).

H.B. 1510 contains detailed factual findings about fetal development based on medical and other authorities. These findings include:

- “Between five (5) and six (6) weeks’ gestation, an unborn human being’s heart begins beating.”
- “An unborn human being begins to move about in the womb at approximately eight (8) weeks’ gestation.”
- “At nine (9) weeks’ gestation, all basic physiological functions are present. Teeth and eyes are present, as well as external genitalia.”
- “An unborn human being’s vital organs begin to function at ten (10) weeks’ gestation. Hair, fingernails, and toenails also begin to form.”
- “At eleven (11) weeks’ gestation, an unborn human being’s diaphragm is developing, and he or she may even hiccup. He or she is beginning to move about freely in the womb.”
- “At twelve (12) weeks’ gestation, an unborn human being can open and close his or her fingers, starts to make sucking motions, and senses stimulation from the world outside the womb. Importantly, he or she has taken on “the human form” in all relevant aspects. *Gonzales v. Carhart*, 550 U.S. 124, 160 (2007).”
- “The majority of abortion procedures performed after fifteen (15) weeks’ gestation are dilation and evacuation procedures which involve the use of surgical instruments to crush and tear the unborn child apart before removing the pieces of the dead child from the womb. The Legislature finds that the intentional commitment of such acts for nontherapeutic or elective

reasons is a barbaric practice, dangerous for the maternal patient, and demeaning to the medical profession.”

- “Most obstetricians and gynecologists practicing in the State of Mississippi do not offer or perform nontherapeutic or elective abortions. Even fewer offer or perform the dilation and evacuation abortion procedure even though it is within their scope of practice.”
- “Abortion carries significant physical and psychological risks to the maternal patient, and these physical and psychological risks increase with gestational age. Specifically, in abortions performed after eight (8) weeks’ gestation, the relative physical and psychological risks escalate exponentially as gestational age increases. L. Bartlett et al., Risk factors for legal induced abortion mortality in the United States, *Obstetrics and Gynecology* 103(4):729 (2004).”
- “[A]s the second trimester progresses, in the vast majority of uncomplicated pregnancies, the maternal health risks of undergoing an abortion are greater than the risks of carrying a pregnancy to term.”
- “Medical complications from dilation and evacuation abortions include, but are not limited to: pelvic infection; incomplete abortions (retained tissue); blood clots; heavy bleeding or hemorrhage; laceration, tear, or other injury to the cervix; puncture, laceration, tear, or other injury to the uterus; injury to the bowel or bladder; depression; anxiety; substance abuse; and other emotional or psychological problems. Further, in abortions performed after fifteen (15) weeks’

gestation, there is a higher risk of requiring a hysterectomy, other reparative surgery, or blood transfusion.”

- “The United States is one (1) of only seven (7) nations in the world that permits nontherapeutic or elective abortion-on-demand after the twentieth week of gestation. In fact, fully seventy-five percent (75%) of all nations do not permit abortion after twelve (12) weeks’ gestation, except (in most instances) to save the life and to preserve the physical health of the mother.” Pet.App.65a-74a.

Based on these findings, the law requires a physician to determine a baby’s probable gestational age before performing an abortion. Pet.App.70a. And it prohibits someone from intentionally or knowingly performing, inducing, or attempting to perform or induce an abortion if the probable gestational age is greater than 15 weeks. *Id.*

B. District court proceedings

Respondents—Jackson Women’s Health Organization, Mississippi’s only abortion clinic and one of its providers, Dr. Sacheen Carr-Ellis—filed suit in federal court to challenge H.B. 1510 the day the law took effect. Respondents only provide abortions up to 16 weeks’ gestation. Pet.App.19a. They did not allege that the law violates their own constitutional rights but rather that the law bans pre-viability abortions in violation of their *clients’* rights. They requested a temporary restraining order that the district court granted the very next day. Pet.App.62a-64a.

Respondents later amended their complaint to add claims attacking the constitutionality of virtually every Mississippi abortion law and regulation in existence.

The district court bifurcated the case, *sua sponte*, severing the challenge to the 15-week law.

Over Mississippi's objections, the district court adopted Respondents' proposed discovery schedule for the 15-week-law portion of the case and limited discovery to only one issue: "whether the 15-week mark is before or after viability." Pet.App.60a. According to the district court, "evidence about any other issue . . . is irrelevant." *Id.*

Accordingly, the district court refused to consider any of Mississippi's interests advanced by the 15-week law. This ignored the law's three explicit justifications, all set forth in the statutory text: Mississippi's "interest in protecting the life of the unborn;" in safeguarding and regulating the medical profession, including prevention of "barbaric practice[s], [that are] dangerous for the maternal patient, and demeaning to the medical profession; and "protecting the health of women." Pet.App.66a-67a.

In support of the State's interest in protecting unborn life, Petitioners proffered Dr. Maureen Condic, an expert in neurobiology, anatomy, and embryology, to opine on the ability of a fetus to experience pain. Dr. Condic explained that:

- "The scientific evidence regarding the development of human brain structures is entirely uncontested in the literature and unambiguously indicates that by [10-12 weeks LMP], a human fetus develops neural circuitry capable of detecting and responding to pain." Pet.App.75a at ¶ 3.
- "During the period from [14-20 weeks LMP], spinothalamic circuitry develops that is capable of supporting a conscious awareness of pain." *Id.*

- “During the time period covered by the Gestational Age Act, the human fetus is producing neural structures that enable a conscious perception of pain, with development of these structures being substantially complete by the” 20th week LMP. Pet.App.77a at ¶ 6. “Thus, during the time period covered by the Gestational Age Act, the human fetus is likely to be capable of conscious pain perception in a manner that becomes increasingly complex over time.” *Id.* ¶ 7.
- “[*T*he scientific evidence regarding development of pain circuitry is entirely undisputed, and has been reported in every modern review of fetal pain.” Pet.App.78a-79a at ¶ 11 (citations omitted).
- “The neural circuitry responsible for the most primitive response to pain, the spinal reflex, is in place by” 10 weeks LMP. “This is the earliest point at which the fetus is capable of detecting and reacting to painful stimuli in any capacity. And a fetus responds just as humans at later stages of development respond[:] by actively withdrawing from the painful stimulus.” Pet.App.80a-81a at ¶ 15.
- And the “rapid improvement in survival of human infants born at increasingly younger ages strongly suggests that in the relatively near future, infants born prior to the 19th week of development may prove to be ‘viable,’ due to technical advances.” Pet.App.81a-83 at ¶ 17.

The district court ruled Dr. Condic’s expert medical and scientific opinions irrelevant and inadmissible. Pet.App.56a-57a.

Following very limited discovery, the district court granted summary judgment to Respondents and perma-

nently enjoined Mississippi's 15-week law. Pet.App.58a-61a. The district court held that under controlling precedent, the 15-week law is unconstitutional because it would "ban" pre-viability abortions. Pet.App.55a. The district court did not apply the undue burden test, and it refused to consider any of the legitimate government interests furthered by the 15-week law. Instead, the district court disparaged Mississippi's acknowledged interest in women's health as "pure gaslighting" and criticized Mississippi for following the lead of many states who declined to expand Medicaid following enactment of the federal Affordable Care Act. Pet.App.46a.

The district court's diatribe did not stop there. The court accused the State's political leaders of being "proud to challenge *Roe*" while choosing "not to lift a finger to address the tragedies lurking on the other side of the delivery room." Pet.App.46a. It compared H.B. 1510 "to the old Mississippi—the Mississippi bent on controlling women and minorities. The Mississippi that, just a few decades ago, barred women from serving on juries so they may continue their service as mothers, wives, and homemakers." Pet.App.47a (quotation omitted). "The Mississippi that, in Fannie Lou Hamer's reporting, sterilized six out of ten black women in Sunflower County at the local hospital—against their will." Pet.App.47a(citation omitted). "And the Mississippi that, in the early 1980s, was the last State to ratify the 19th Amendment." Pet.App.47a (citation omitted). "The Mississippi Legislature," the court proclaimed, "has a history of disregarding the constitutional right of its citizens." Pet.App.50a.

C. Fifth Circuit ruling

The Fifth Circuit affirmed. It held that this Court's precedent creates a categorical right to a pre-viability

abortion, and the 15-week law infringes that right because it is a “ban on certain pre-viability abortions[.]” Pet.App.13a. Construing that right as inviolable, the Fifth Circuit agreed that the district court was not required to apply the undue burden test or consider the strength of Mississippi’s interests that the law served. Pet.App.12a. The court also affirmed the district court’s discovery and evidentiary rulings, explaining that this “result . . . flows from our holding that the Act unconstitutionally bans pre-viability abortions.” Pet.App.14a. And it rejected Mississippi’s standing argument. Pet.App.15a.

Judge Ho concurred in affirming the judgment of the district court because a “good faith reading” of this Court’s precedents required it. Pet.App.20a. But he stated that he could not affirm the district court’s opinion because he was “deeply troubled by how the district court handled this case.” Pet.App.21a. The district court’s opinion “displays an alarming disrespect for the millions of Americans who believe that babies deserve legal protection during pregnancy as well as after birth, and that abortion is the immoral, tragic, and violent taking of innocent human life.” Pet.App.21a. “Instead of respecting all sides,” Judge Ho continued, “the district court opinion disparages the Mississippi legislation,” “equates a belief in the sanctity of life with sexism,” and “smears Mississippi legislators by linking House Bill 1510 to the state’s tragic history of race relations, while ignoring abortion’s own checkered racial past.” Pet.App.21a. “It is troubling,” Judge Ho concluded, “that federal courts, without any basis in constitutional text or original meaning, restrict the ability of states to regulate in the area of abortion.” Pet.App.37a.

REASONS FOR GRANTING THE WRIT

In *Gonzales*, this Court recognized that an unborn child “is a living organism while within the womb, whether or not it is viable outside the womb.” 550 U.S. at 147. As a result, that child is entitled to “respect for the dignity of [its] human life.” *Id.* at 157.

Conversely, *Roe*’s viability line is arbitrary, constantly moves as medical knowledge increases, and fails to honor the reality that states have substantial interests of their own beginning “from the outset of the pregnancy.” *Id.* at 145. Indeed, by 15 weeks, a baby’s development is so great—and the likelihood of her eventual live and healthy birth so high—that it makes little sense to say a state has *no* interest in protecting the infant’s life, not to mention the state’s substantial interests in the mother’s life and safety, the baby’s pain and suffering, and the “coarsen[ing of] society to the humanity of . . . all vulnerable and innocent human life.” *Id.* at 157 (cleaned up).

Given the conflict in this Court’s precedents and the advances in medical and scientific knowledge, certiorari is warranted to clarify whether abortion prohibitions before viability are always unconstitutional. The Court should grant the petition, hold that it is illogical to impose a “rigid line allowing state regulation after viability but prohibiting it before viability,” *Webster*, 492 U.S. at 518, and uphold the Gestational Age Act. In so doing, the Court should clarify whether the *Casey* undue-burden test or the *Hellerstedt* balancing framework should be applied. And the Court should hold that abortion clinics and doctors lack third-party standing to assert the rights of their clients, bringing standing in abortion cases into conformance with all other areas of the law.

I. The Court should grant certiorari and clarify that the right to a pre-viability abortion is not absolute.

The only legal and factual issue the district court considered was whether a baby is viable at 15 weeks. Pet.App.40a-55a. This was error and conflicts with this Court’s nuanced and evolving abortion jurisprudence. Just as this Court rejected *Roe*’s trimester framework in *Casey*, the Court should grant review and reject “viability” as the bright line for determining when a state may legislate to advance its substantial interests in health, safety, and dignity.

A. “Viability” is not an appropriate standard for assessing the constitutionality of a law regulating abortion.

The Court has already held that states have legitimate interests in protecting the health of the mother, the life and dignity of the developing baby, and society’s sensitivity to the importance of all human life. *Gonzales*, 550 U.S. at 145, 157. The Court also recognizes these interests exist “from the outset of the pregnancy.” *Id.* at 145 (citing *Casey*, 505 U.S. at 846). But that recognition conflicts with *Roe*’s suggestion that a mother has a right to terminate her baby’s life up to viability. *Roe*, 410 U.S. at 163–65. There are many reasons to revisit the bright-line viability rule.

1. Neither the Texas statute challenged in *Roe* nor the Georgia statute at issue in *Doe v. Bolton*, 410 U.S. 179 (1973), included a gestational age limit. So, the lower courts did not rule on viability in either case, and no party or amicus asked the Court to adopt a bright-line viability rule—or even to extend the abortion right to viability.

As such, basing its holding on fetal viability was “self-conscious dictum” from the get-go. Randy Beck, *Self-Conscious Dicta: The Origins of Roe v. Wade’s Trimester Framework*, 51 Am. J. Legal Hist. 505 (2011). And members of the Court have commented on the arbitrariness of using viability as the marker to evaluate the strength of state interests. Justice O’Connor explained in *Akron* that the “choice of viability as the point at which the state interest in *potential* life becomes compelling is no less arbitrary than choosing any point before viability or any point afterward.” 462 U.S. at 461. And the Court in *Webster* saw no reason “why the State’s interest in protecting potential human life should come into existence only at the point of viability, and that there should therefore be a rigid line allowing state regulation after viability but prohibiting it before viability.” 492 U.S. at 519. *Webster* cited favorably to the dissent in *Thornburgh v. American College of Obstetricians and Gynecologists*, 476 U.S. 747 (1986), noting that a state’s “‘compelling interest’ in protecting human life throughout pregnancy,” if “compelling after viability, is equally compelling before viability.” *Id.* (quoting *Thornburgh*, 476 U.S. at 795 (White, J., dissenting)). Accord *Thornburgh*, 476 U.S. at 778 (Stevens, J., concurring) (state’s interest increases with the baby’s “capacity to feel pain”).

2. When adopting the viability rule, the *Roe* opinion did not grapple with its implications for maternal health, nor could it; since the issue had not been briefed or argued, the Court lacked a record to consider those implications. With the benefit of additional experience and study, it is now apparent that allowing abortion until viability risks the mother’s health in multiple ways. Linda Bartlett, et al., *Risk Factors for Legal Induced Abortion-Related Mortality in the United States*, 103 Ob. & Gyn. 729 (2004) (“Compared

with women whose abortions were performed at or before 8 weeks of gestation, women whose abortions were performed in the second trimester were significantly more likely to die of abortion-related causes.”). More on this below. The point here is that it is difficult to reconcile a bright-line viability rule and the state’s interest in protecting maternal health. That explains why Mississippi has an existing 20-weeks law that is still in effect, Miss. Code Ann. 41-41-141, and why, as of January 1, 2020, 17 states—Alabama, Arkansas, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Nebraska, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Texas, West Virginia, and Wisconsin—are enforcing 22-weeks laws.

3. *Roe’s* viability rule is outdated. Most states reject viability as the rule for determining when prenatal injuries are actionable. Paul Benjamin Linton, *The Legal Status of the Unborn Child under State Law*, 6 U. St. Thomas J. Law & Pub. Pol’y 141, 146–48 (2012) (*Linton*). Courts and legislatures routinely reject viability as the standard for wrongful-death actions. *E.g.*, *Hudak v. Gregory*, 634 A.2d 600, 602 (Pa. 1993) (“[N]o jurisdiction accepts the . . . assertion that a child must be viable at the time of birth in order to maintain an action in wrongful death.”); *Hamilton v. Scott*, 97 So.3d 728, 735 (Ala. 2012) (“Alabama’s wrongful-death statute allows an action to be brought for the wrongful death of any unborn child, even when the child dies before reaching viability.”) And states reject the rule for fetal homicides. *Linton* 143–46. Outside abortion, “viability is purely an arbitrary milestone from which to reckon a child’s legal existence.” *Wiersma v. Maple Leaf Farms*, 543 N.W.2d 787, 792 (S.D. 1996).

4. A strict viability line ties “a state’s interest in unborn children to developments in obstetrics, not to developments in the unborn. This leads to troubling consequences for states seeking to protect unborn children.” *MKB Mgmt.*, 795 F.3d at 774. To begin, medical advances make viability itself a moving target. What Mississippi could not prohibit in 1973, it can prohibit today. And what Mississippi cannot regulate today, it will be able to regulate in the future. Given the many medical advances our scientific community is constantly achieving, it is only a matter of time before development of an artificial womb moves “viability” all the way back to the moment of conception.

Moreover, a strict viability rule does not account for what medicine and science have taught us since 1973. *Ibid.* “The development of ultrasound technology has enhanced medical and public understanding, allowing us to watch the growth and development of the unborn child in a way previous generations could never have imagined.” *Hamilton*, 97 So. 3d at 742 (Parker, J., concurring specially). “Similarly, advances in genetics and related fields make clear that a new and unique human being is formed at the moment of conception, when two cells, incapable of independent life, merge to form a single, individual human entity.” *Ibid.* There is also the development of in vitro fertilization which has established for many, lay and scientific alike, that conception is the moment when human life begins. Maureen L. Condic, *When Does Human Life Begin? The Scientific Evidence and the Terminology Revisited*, 8 U. St. Thomas J. L. & Pub. Pol’y 44 (2013).

5. Finally, this Court’s *Gonzales* decision has already called the viability rule into serious question. Crediting Congress’s policy judgment that “the practice of performing a partial-birth abortion . . . is[a gruesome and

inhuman procedure that is never medically necessary and should be prohibited,” the Court upheld a complete ban on partial-birth abortion, except when “necessary to save the life of the mother.” 550 U.S. at 141, 142, 158. The ban applied “both previability and postviability because, by common understanding and scientific terminology,” “a fetus is a living organism while within the womb, whether or not it is viable outside the womb.” *Id.* at 147. Accord, *e.g., id.* at 156 (posing the central question as “whether the [federal partial-birth abortion ban] Act . . . imposes a substantial obstacle to late-term, *but pre-viability*, abortions,” and concluding that it does not) (emphasis added). Significantly, the district court decision this Court reversed in *Gonzales* used the same viability line treated as dispositive by the district court here.

Justice Ginsburg’s *Gonzales* dissent criticized the majority because it “blurs the line” “between previability and postviability.” *Id.* at 171, 186 (Ginsburg, J., dissenting). She was right. Khiara M. Bridges, *Capturing the Judiciary: Carhart and the Undue Burden Standard*, 67 Wash. & Lee L. Rev. 915, 941 (2010) (*Gonzales* “can be read to eliminate the significance of viability as a marker, and therefore eliminate the significance of the distinction between the pre-viable and post-viable stages of pregnancy”); Randy Beck, *Gonzales, Casey, and the Viability Rule*, 103 Nw. U. L. Rev. 249, 253, 276 n.152 (2009) (explaining that *Gonzales* “undermines *Casey*’s attempted defense of the viability rule”).

In sum, the viability rule was created outside the ordinary crucible of litigation, failed to take account of the state’s accepted interest in maternal health and fetal pain, is increasingly out of step with other areas

of the law, rejects science and common sense, and is shaky precedent at best. The Court should revisit it.

B. Courts should consider a state's legitimate interests when assessing pre-viability abortion regulation.

As noted, this Court has recognized Mississippi's legitimate interests in protecting maternal health, safeguarding unborn babies, and promoting respect for innocent and vulnerable life. The district court failed to consider those interests, deeming them irrelevant under the dubious viability rule. But these strong interests show why the viability standard cannot survive (or at a minimum, why it cannot be a bright-line rule).

1. Maternal health

a. Abortion can cause serious physical and psychological (both short- and long-term) complications for mothers, including uterine perforation, uterine scarring, cervical perforation or other injury, infection, bleeding, hemorrhage, blood clots, failure to actually terminate the pregnancy, incomplete abortion (retained tissue), pelvic inflammatory disease, endometritis, missed ectopic pregnancy, cardiac arrest, respiratory arrest, renal failure, metabolic disorder, shock, embolism, coma, placenta previa in subsequent pregnancies, preterm birth in subsequent pregnancies, free fluid in the abdomen, organ damage, adverse reactions to anesthesia and other drugs, psychological or emotional complications including depression, anxiety, sleeping disorders, an increased risk of breast cancer, and death. *E.g.*, P.K. Coleman, *Abortion and Mental Health: Quantitative Synthesis and Analysis of Research Published 1995-2009*, 199 *Brit. J. Of Psychiatry* 180-86 (2011); P. Shah et al., *Induced termination of*

pregnancy and low birth weight and preterm birth: a systematic review and meta-analysis, 116, B.J.O.G. 1425 (2009); H.M. Swingle et al., *Abortion and the Risk of Subsequent Preterm Birth: A Systematic Review and Meta-Analysis*, 54, J. Reprod. Med. 95 (2009); R.H. van Oppenraaij et al., *Predicting adverse obstetric outcome after early pregnancy events and complications: a review*, 15, Human Reprod. Update Advance Access 409 (2009); J.M. Thorp et al., *Long-Term Physical and Psychological Health Consequences of Induced Abortion: Review of the Evidence*, 58, Obstet. & Gynecol. Survey 67, 75 (2003); J.M. Barrett, *Induced Abortion: A Risk Factor for Placenta Previa*, 141 Am. J. Obstet. & Gynecol. 769 (1981).

It is undisputed that abortion has a higher medical risk when the procedure is performed later in pregnancy. Compared to abortion at eight weeks gestation, the relative risk of mortality increases by 38% for each additional week at higher gestations. L. Bartlett et al., *Risk Factors for Legal Induced Abortion-Related Mortality in the United States*, 103 Ob. & Gyn. 729 (2004). For example, the risk of death at eight weeks' gestation is one death per one million abortions; at 16 to 20 weeks, that risk rises to one death per 29,000 abortions; and at 21 weeks' gestation or later, the risk of death is one per every 11,000 abortions. *Id.* So, a woman seeking an abortion at 20 weeks is 35 times more likely to die from the abortion than she was in the first trimester.

Researchers in the Bartlett study concluded that it may not be possible to reduce the risk of death in later-term abortions because of the "inherently greater technical complexity of later abortions." *Id.* at 735. This is because later-term abortions require a greater degree of cervical dilation, an increased blood flow later in pregnancy predisposes the woman to hemorrhage, and

the myometrium is relaxed and more subject to perforation. *Id.* Abortion procedures performed after the first trimester account for “a disproportionate amount of abortion-related morbidity and mortality.” E.M. Johnson, *The Reality of Late-Term Abortion Procedures*, Charlotte Lozier Institute (Jan. 20, 2015), at 6.

b. Any surgical abortion taking place after 15 weeks’ gestation carries inherent risks of infection, bleeding, damage to other genitourinary and gastrointestinal organs, incomplete emptying of the uterus, cervical laceration, and uterine perforation. L. Bartlett et. al., at 729; C. Hammond, *Recent advances in second trimester abortion: an evidence-based review*, 200 Am. J. Obstet. Gynecol. 347 2009;200(4): 347–56; J. Diedrich et al., *Complications of Surgical Abortion*, 52 Clin. Obstet. Gynecol. 205 (2009);52(2):205-212. During the second trimester, the uterus thins and softens significantly and there is an increased risk of perforating or puncturing the uterine wall with instruments. Testimony of Anthony Levatino, M.D., *Hearing on District of Columbia Pain-Capable Unborn Child Protection Act, H.R. 1797*, before the Subcomm. on the Constitution and Civil Justice, H. Comm. on the Judiciary, 113th Cong. (May 23, 2013). And every type of dilator used in such an abortion “can migrate into the uterine cavity resulting in ongoing pain, bleeding, or infection.” *Id.* at 163.

Inserting dilators also increases the risk that a woman “will experience spontaneous rupture of membranes during or after osmotic dilator insertion,” which can lead to infection and fever. *Id.* Insertion can “traumatiz[e] the cervix” or “creat[e] a false channel”—that is, it can form a hole or fracture in vaginal or cervical tissue where there should not be one. *Id.*

Between 5% and 20% of women will suffer vasovagal symptoms—fainting, nausea, blurred vision, lighthead-

edness, cold sweats, weak pulse, a drop in blood pressure, low heart rate, and more— because of the dilation procedures. *Id.* at 164. Leaving the dilators in for multiple days also poses the risk that the woman (and the baby) will contract a serious infection. *Id.* at 163, 165. The most common dilators are natural products, derived from seaweed and algae, and can harbor genital pathogens even after sterilization. *Id.* at 164. And some women suffer anaphylaxis in response to luminaria insertion. *Id.* at 165. This is “a severe, potentially life-threatening allergic reaction” characterized by vomiting, dizziness, hives, hypotension, airway constriction, and a weak and rapid pulse. *See* Mayo Clinic, *Anaphylaxis*, <https://mayoclinic.org/2GYVjoL> (Sept. 14, 2019).

c. In 1973, this Court could not have known of the psychological and physiological harms that legalized abortion could cause women. Today, “the one fact that seems nearly axiomatic in psychological literature on abortion is that the later in pregnancy one aborts, the greater the woman’s risk for negative emotional sequelae.” Brian D. Wassom, *The Exception That Swallowed the Rule?: Women’s Professional Corp. v. Voinovich and the Mental Health Exception to Post-Viability Abortion Bans*, 49 Case W. Res. L. Rev. 799, 853 (1999).

One peer-reviewed study—led by a pro-abortion researcher—demonstrated that the risk of suicide was three times greater for women who aborted than for women who carried their pregnancies to term. D.M. Fergusson et al., *Abortion in Young Women and Subsequent Mental Health*, 47 J. Child Psychology & Psychiatry 16 (2006). Another peer-reviewed study demonstrates that women whose first pregnancies ended in abortion were 65% more likely to score in the

“high risk” range for clinical depression than women whose first pregnancies resulted in a birth, even after controlling for age, race, marital status, divorce history, education, income, and pre-pregnancy psychological state. J.R. Cougle et al., *Depression Associated with Abortion and Childbirth: A Long-Term Analysis of the NLSY Cohort*, 9 Med. Sci. Monitor 157 (2003).

In short, growing medical evidence supports Mississippi’s interest in and responsibility to protect women from the dangers inherent in abortion, especially abortions at or after 15 weeks. This is a significant state interest that the district court erroneously disregarded.

2. Concern for the growing baby

a. By 12 weeks’ gestation, an unborn child has taken on “the human form” in all relevant aspects. *Gonzales*, 550 U.S. at 160. This reality is confirmed in the Gestational Age Act’s legislative findings, recited above.

b. Dr. Condic’s expert proffer also explains that an unborn child can suffer pain by 15 weeks’ gestation. “The earliest ‘rudiment’ of the human nervous system forms by” six weeks after the last menstrual period. Pet.App.79a-80a at ¶ 13 (citations omitted). “The neural circuitry responsible for the most primitive response to pain, the spinal reflex,” is in place by 10 weeks and marks “the earliest point at which the fetus is capable of detecting and reacting to painful stimuli in any capacity.” Pet.App.80a-81a at ¶ 15 (citations omitted). By 15 weeks, scientific literature shows that a baby *in utero* does not just detect pain but is capable of suffering. Pet.App.84a-99a at ¶¶ 19–43 (citations omitted). That is why painful stimuli cause a 20-week fetus to exhibit a hormonal stress response. Stuart W.G.

Derbyshire, *Can Fetuses Feel Pain?*, 332 *Controversy* 909, 910 (2006). And it explains the “clear consensus among professional anesthesiologists that the use of medications to relieve pain is warranted in cases of fetal surgery.” Pet.App.97a at ¶ 39 (citations omitted).

A strict viability rule does not consider any of this scientific evidence, despite Mississippi’s interest in protecting vulnerable, unborn life. This is a second significant state interest that the district court erroneously disregarded.

3. Protection of the medical profession and society

America cannot be a humane, civilized society if its courts preclude lawmakers from imposing reasonable limits on the taking of innocent human life. Sadly, because of the viability standard, the United States leads the world in allowing nearly fully developed children to be aborted: 26 countries prohibit abortion with no exceptions; 39 do so except when needed to save the mother’s life; 36 more add an allowance for the mother’s physical health, 24 for the mother’s mental health, and 13 for socioeconomic reasons. Only 61 countries allow abortion without restriction as to reason, and of these, most allow abortions *only* during the first trimester or earlier. The only non-U.S. countries that allow abortions up to 24 weeks (viability) or longer are Canada, China, the Netherlands, North Korea, Singapore, and Vietnam. Guttmacher Institute, S. Singh, et al., *Abortion Worldwide 2017: Uneven Progress and Unequal Access*, Guttmacher Institute (2018), available at <https://www.guttmacher.org/report/abortion-worldwide-2017#>. These gruesome, late-term procedures—which typically involve piercing or crushing the growing baby’s skull or removing it limb from limb, see generally *Gonzales*, 550 U.S. at 150–51—are precisely those that

are most likely to coarsen medical professionals and society to the value and dignity of human life.

Legislatures must be the vanguards of a humane society. While the judiciary is ill-equipped to make specific and speedy policy decisions in response to constantly advancing medical and scientific data, state legislatures are well-suited to do exactly that. Particularly where there is genuine debate, legislatures can investigate, take testimony, and act promptly on the best information available.

The viability rule gets these roles backward. If it indeed permits courts to disregard scientific evidence that does not pertain to viability, it hamstring the States' ability to respond to medical advancements, and simultaneously renders the law incapable of adapting to those changes until this Court grants certiorari to consider the new evidence. This is a third significant state interest that the district court erroneously disregarded. The Court should clarify the rule and direct lower courts to take all state interests into account.

4. The standard for assessing a state's legitimate interests

Finally, as explained above, *Casey's* undue-burden test and *Hellerstedt's* balancing approach are irreconcilable. Pet. 6. This has left lower courts flummoxed when trying to assess the validity of laws like Mississippi's, which this Court has never addressed.

For example, in *Planned Parenthood of Ind. & Ky., Inc. v. Adams*, 937 F.3d 973 (7th Cir. 2019), the Seventh Circuit considered an Indiana parental-notification law. Though the law comported with *Bellotti v. Baird*, 443 U.S. 622 (1979), and *Casey*, 505 U.S. at 895 (opinion of the Court), the panel enjoined

the law by applying *Hellerstedt*, holding that Indiana had failed to prove the law's benefit. The Seventh Circuit declined to hear the case en banc. And in a concurrence in that denial, Judges Easterbrook and Sykes explained the conundrum this Court's abortion jurisprudence has created:

Only the Justices, the proprietors of the undue-burden standard, can apply it to a new category of statute, such as the one Indiana has enacted. Three circuit judges already have guessed how that inquiry would come out; they did not agree. The quality of our work cannot be improved by having eight more circuit judges try the same exercise. It is better to send this dispute on its way to the only institution that can give an authoritative answer. *Planned Parenthood of Ind. & Ky., Inc. v. Box*, 949 F.3d 997, 998 (7th Cir. 2019).

Similar examples abound. It is well past time for the Court to clarify how courts should assess the validity of state interests after *Casey* and *Hellerstedt*.

II. The Court should grant certiorari to decide whether abortion providers have standing to challenge laws enacted to protect their clients' health.

Respondents—an abortion clinic and a provider—lack Article III and third-party standing to assert the rights of their patients. The lower courts simply assumed that Respondents have third-party standing to challenge H.B. 1510 on behalf of clients. That was error. Respondents must satisfy the same rigorous third-party standing requirements as other litigants.

In *Singleton v. Wulff*, 428 U.S. 106 (1976), the plurality departed from rigorous third-party standing requirements and exempted abortion providers from the rules every other litigant must follow. In *June*

Medical Services, LLC, et al. v. Gee, No. 18-1323, this Court agreed to hear a cross-petition on third-party standing: whether abortion providers may assert the legal rights of clients seeking abortions when they challenge state regulation. Here, as in *June Medical*, the purported injury asserted is the right of clients seeking abortions protected by the Due Process Clause. There is no such right for those who provide abortions, and plaintiffs here do not assert one, nor any other claim of their own. Whether in *June Medical* or here, the Court should hold that abortion providers lack third-party standing to sue on behalf of clients.

A. The third-party-standing question is properly before this Court.

The third-party standing issue is properly presented because waiver does not and should not be applied to an Article III issue.

1. Third-party standing is an Article III issue.

While some cases refer to third-party standing as an aspect of prudential standing, *e.g.*, *Kowalski v. Tesmer*, 543 U.S. 125, 128–129 (2004), this Court has said that assumption should be reevaluated. In *Lexmark International, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 127 n.3 (2014), a unanimous Court recognized that “limitations on third-party standing are hard[] to classify” and “that doctrine’s proper place in the standing firmament” should be reassessed.

In so doing, the *Lexmark* Court suggested that third-party standing is not prudential. It did so by discussing third-party standing alongside two other concepts—the “zone-of-interest test” and the prohibition on “generalized grievances”—that the Court “previously

classified as . . . aspect[s] of ‘prudential standing’ but for which, upon closer inspection, [it] found that label inapt.” *Ibid.* The Court should take the natural next step and clarify that third-party standing is an Article III issue.

a. Third-party standing fits squarely within modern Article III doctrine. Article III standing analysis is particularized: “the particular plaintiff” must demonstrate standing for each “particular claim[] asserted.” *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 352 (2006); *accord Warth v. Seldin*, 422 U.S. 490, 500 (1975) (standing “turns on the nature and source of the claim asserted”). Questions of third-party standing arise when a plaintiff raises a particular claim belonging only to others. Whether that plaintiff may do so falls within this Article III rubric.

b. Third-party standing implicates the core “policies embodied in [the] Article III” case-or-controversy requirement. *Valley Forge Christian Coll. v. Ams. United for Separation of Church & State, Inc.*, 454 U.S. 464, 472 (1982). This Court has recognized that the default rule *against* third-party standing is “closely related to Art. III concerns.” *Warth*, 422 U.S. at 500. Those concerns include the need for a full, concrete factual context and “a due regard for the autonomy of those persons likely to be most directly affected by a judicial order,” *Valley Forge*, 454 U.S. at 472, 473, and proof of a concrete injury, *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992).

c. Affirming third-party standing’s place within Article III is consistent with the broader move to diminish—if not eradicate—standing doctrines labeled “prudential.” In the 1980s, this Court recognized that at least three doctrines—the ban on generalized grievances, the zone-of-interest test, and the default rule against third-party standing—were aspects of

prudential standing. *Allen v. Wright*, 468 U.S. 737, 751 (1984). But by the time *Lexmark* was decided, the Court had held that two of these three (the generalized-grievances ban and the zone-of-interest test) are not within prudential standing and that the third (third-party standing) is ripe for reconsideration. This trend toward eliminating prudential standing is consistent with this Court’s “recent reaffirmation” that “a federal court’s obligation to hear and decide cases within its jurisdiction is virtually unflagging.” *Lexmark*, 572 U.S. at 126 (cleaned up).

d. Finally, announcing that third-party standing principles are part of Article III would restore historical practice. “For most of our Nation’s history, plaintiffs could not challenge a statute by asserting someone else’s constitutional rights.” *Hellerstedt*, 136 S. Ct. at 2322 (Thomas, J., dissenting) (citing *Kowalski*, 543 U.S. at 135 (Thomas, J., concurring) (discussing case law)). Article III’s original understanding is that a lawsuit “should be brought in the name of the party whose legal right has been affected.” *Tyler v. Judges of Court of Registration*, 179 U.S. 405, 407 (1900). It is past time to restore third-party standing to its original place under Article III.

2. This Court should resolve the third-party-standing issue regardless.

This Court should resolve the third-party-standing question for two reasons: (1) waiver does not apply to third-party standing in a case like this, and (2) appellate courts have discretion to excuse waiver and resolve questions “for the first time on appeal” where justice requires, *Singleton*, 428 U.S. at 121 (plurality) (citing *Hormel v. Helvering*, 312 U.S. 552, 557 (1941)). Under either rationale, two reasons warrant this Court deciding standing here.

First, this case presents an inherent conflict between some interests of Respondents and some of their clients. Mississippi women have compelling interests in protecting their health, which is threatened during late-term abortions. Conversely, Respondents have a vested monetary interest in conducting abortion procedures no matter when they occur.

Such an inherent conflict requires this Court to address the standing issue even if waived below. *Valley Forge*, 454 U.S. at 473. Courts must be vigilant to ensure plaintiffs do not hijack others' rights and undermine their interests. This judicial duty is especially important when health is at stake.

Second, whether doctors may invoke their clients' rights to invalidate regulations that protect those clients' health is a legal question. And courts regularly say that waiver does not apply or is excused when the issue raised is legal. *New Orleans Depot Servs., Inc. v. Dir., Office of Worker's Comp. Programs*, 718 F.3d 384, 387–88 (5th Cir. 2013) (en banc); *United States v. Brunner*, 726 F.3d 299, 304 (2d Cir. 2013).

B. Litigants lack third-party standing when their interests conflict with third parties' interests.

1. There are no exceptions to the bar on third-party standing when there is a conflict of interests. *Elk Grove Unified School District v. Newdow*, 542 U.S. 1, 15 (2004). In *Elk Grove*, the plaintiff was a father raising his daughter's asserted constitutional interest in objecting to hearing others recite the words "under God" in the Pledge of Allegiance at public school. *Id.* at 5. According to her mother, the daughter had "no objection." *Id.* at 9.

The Court held that the father could not raise the daughter's rights. *Id.* at 15. The father's "standing derives entirely from his relationship with his daughter." *Ibid.* "In marked contrast to our case law on [third-party standing]," the Court said, citing *Singleton*, "the interests of this parent and this child are . . . potentially in conflict." *Ibid.*

Elk Grove reaffirmed that the rules on third-party standing—including *Singleton*'s analysis for abortion providers—are displaced when the interests of the litigant and the third party conflict. Under those circumstances, the litigant cannot assert the third party's rights. *Accord In re Majestic Star Casino, LLC*, 716 F.3d 736, 763 (3d Cir. 2013); *Lepelletier v. FDIC*, 164 F.3d 37, 44 (D.C. Cir. 1999); *Canfield Aviation, Inc. v. Nat'l Transp. Safety Bd.*, 854 F.2d 745, 748 (5th Cir. 1988).

This conflict-of-interest rule fits existing third-party standing doctrine and makes sense in other contexts. No employer could raise its employees' wage-and-hour rights to invalidate an OSHA regulation that limits dangerous tasks to a few hours per week.

2. As explained above, an unavoidable conflict of interests exists here. Respondents' interest in avoiding regulation conflicts with their clients' interests in protecting their health. Yet Respondents are hijacking women's rights to overturn a regulation that helps keep them safe from dangerous, late-term abortion procedures.

3. Allowing Respondents to raise women's abortion interests would turn principles of third-party standing on their head. A conflicted litigant is not a fitting "proponent" for the third party's interest. *Singleton*,

428 U.S. at 115 (plurality). Such a litigant is an advocate who sacrifices the right-holder's interests.

Respondents' decision to sue to invalidate the Gestational Age Act illustrates this. If Respondents cared about their clients' health, they would have worked with Mississippi regulators to ensure an appropriate scope of the Act's exception for a mother's health. Such advocacy would have represented the full panoply of women's interests. But Respondents did not do that.

4. The unavoidable conflict that the Gestational Age Act creates between abortion providers and women distinguishes this case from *Singleton*. The doctors there challenged a state law withholding Medicaid funding for elective abortions. That funding statute—unlike a safety regulation—created no conflict between abortion providers and clients. So even though the plurality allowed third-party standing there, the Court should not here. It is *Elk Grove*'s conflict-of-interest rule, not *Singleton*'s analysis, that controls.

In sum, this Court should apply *Elk Grove*'s conflict-of-interest rule and hold that Respondents lack third-party standing to raise their clients' rights when challenging a law that helps keep women safe when they are considering late-term abortions.

III. This case is an ideal vehicle to resolve the questions presented.

It is well past time for the Court to revisit the wisdom of the viability bright-line rule and the conflict between *Casey* and *Hellerstedt*. Mississippi's Gestational Age Act provides an ideal vehicle to do so.

First, it is not possible to reconcile *Roe*'s viability holding, *Webster*'s observations about that holding's

indefensibility, and *Gonzales's* discussion of pre-viability state interests. Nor is it possible to reconcile the conflicting tests in *Casey* and *Hellerstedt*. Only this Court can resolve the conflict among these precedents, and further percolation is useless.

Second, a 15-week law is an ideal case for examining a state's pre-viability interests and the proper test for assessing those interests. A 20-, 22-, or 24-week law is too close to the viability line for such an analysis to take place.

Finally, between Dr. Condic's affidavit, the legislative findings, and medical literature, there is adequate information regarding fetal pain, gestational development, and maternal health for the Court to reach a decision. Given how quickly district courts have shut down discovery in cases involving pre-viability regulation, no good will come from waiting for another case with a larger record because there is unlikely to be one without further clarification on the standard from this Court.

At a bare minimum, the Court could simply clarify that the viability line is not categorical, and reverse and remand with instructions for the district court to accept evidence and testimony regarding the important state interests Mississippi advances.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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June 15, 2020

APPENDIX

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APPENDIX A

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

[Filed December 13, 2019]

No. 18-60868

JACKSON WOMEN'S HEALTH ORGANIZATION, on behalf
of itself and its patients; SACHEEN CARR-ELLIS, M.D.,
M.P.H., on behalf of herself and her patients,

Plaintiffs-Appellees,

v.

THOMAS E. DOBBS, M.D., M.P.H., in his official
capacity as State Health Officer of the Mississippi
Department of Health; KENNETH CLEVELAND, M.D.,
in his official capacity as Executive Director of the
Mississippi State Board of Medical Licensure,

Defendants-Appellants.

Appeal from the United States District Court
for the Southern District of Mississippi

Before HIGGINBOTHAM, DENNIS, and HO, Circuit
Judges.

PATRICK E. HIGGINBOTHAM, Circuit Judge.

This case concerns a Mississippi law that prohibits
abortions, with limited exceptions, after 15 weeks' ges-
tational age. The central question before us is whether
this law is an unconstitutional ban on pre-viability
abortions. In an unbroken line dating to *Roe v. Wade*,

the Supreme Court’s abortion cases have established (and affirmed, and re-affirmed) a woman’s right to choose an abortion before viability. States may *regulate* abortion procedures prior to viability so long as they do not impose an undue burden on the woman’s right, but they may not ban abortions. The law at issue is a ban. Thus, we affirm the district court’s invalidation of the law, as well as its discovery rulings and its award of permanent injunctive relief.

I.

On March 19, 2018, Mississippi enacted House Bill 1510, entitled the “Gestational Age Act” (“the Act”).¹ The Act provides that, in most cases, an abortion cannot be performed until a physician first determines and documents a fetus’s probable gestational age.² Then,

[e]xcept in a medical emergency or in the case of a severe fetal abnormality, a person shall not perform, induce, or attempt to perform or induce an abortion of an unborn human being if the probable gestational age of the unborn human being has been determined to be greater than fifteen (15) weeks.³

¹ Gestational Age Act, ch. 393, § 1, 2018 Miss. Laws (codified at MISS. CODE ANN. § 41-41-191).

² Gestational age is measured by the time elapsed since the woman’s last menstrual period (LMP).

³ “Severe fetal abnormality” is defined as “a life-threatening physical condition that, in reasonable medical judgment, regardless of the provision of life-saving medical treatment, is incompatible with life outside the womb.” “Medical emergency” is defined as a condition in which “an abortion is necessary to preserve the life of a pregnant woman whose life is endangered by a physical disorder, physical illness, or physical injury, including a life-

The legislature found that most abortions performed after 15 weeks' gestation are dilation and evacuation procedures and that "the intentional commitment of such acts . . . is a barbaric practice, dangerous for the maternal patient, and demeaning to the medical profession." It also found that developments in medical knowledge of prenatal development have shown that, for example, the abilities to open and close fingers and sense outside stimulations develop at 12 weeks' gestation. Finally, it found that abortion carries risks to maternal health that increase with gestational age, and it noted that Mississippi has legitimate interests in protecting women's health.

On the day the Act was signed into law, Jackson Women's Health Organization, the only licensed abortion facility in Mississippi, and one of its doctors, Dr. Sacheen Carr-Ellis (collectively "the Clinic"), filed suit challenging the Act and requesting an emergency temporary restraining order. The next day, the district court held a hearing and issued a temporary restraining order.⁴

endangering physical condition arising from the pregnancy itself, or when the continuation of the pregnancy will create a serious risk of substantial and irreversible impairment of a major bodily function." Also, the medical licenses of doctors who violate the Act "shall be suspended or revoked[.]"

⁴ The Clinic later amended its complaint, adding five new challenges to other Mississippi abortion laws. The district court, invoking its discretion under Federal Rule of Civil Procedure 42, bifurcated the case: Part One covers the challenges to the 2018 Act, while Part Two covers the challenges to the earlier-enacted Mississippi laws. The district court denied the State's motion to reconsider this bifurcation. This appeal only concerns Part One; Part Two remains at the district court.

The district court also granted the Clinic’s motion to limit discovery to the issue of viability. It determined that the Act “is effectively a ban on all elective abortions after 15 weeks,” and “[g]iven the Supreme Court’s viability framework, that ban’s lawfulness hinges on a single question: whether the 15-week mark is before or after viability.” Under this view, Mississippi’s asserted state interests were irrelevant and the State’s discovery was aimed at rejecting the Supreme Court’s viability framework, not at defending the Act within that framework.

The State served extensive written discovery requests, which the Clinic opposed to the extent they reached beyond the viability question. The State also designated Dr. Maureen Condic as an expert in neurological embryology and fetal development. On the Clinic’s motion, the district court excluded Dr. Condic’s expert report because the State had conceded that it pertained to the issue of fetal pain and not to viability.⁵

Discovery concluded and the Clinic moved for summary judgment. The Clinic submitted evidence that viability is medically impossible at 15 weeks LMP. The State conceded that it had identified no medical evidence that a fetus would be viable at 15 weeks. It also conceded that the Act bans abortions for some women prior to viability. Still, the State opposed summary judgment because the Act “merely limits the time frame” in which women must decide to have an abortion and because the Supreme Court has left unanswered whether Mississippi’s asserted state interests can justify the Act.

⁵ The district court denied the Clinic’s motion in part, allowing the State to proffer the report and thus preserve the evidentiary issue.

The district court granted summary judgment to the Clinic. The Act was unconstitutional, the court held, because “viability marks the earliest point at which the State’s interest in fetal life is constitutionally adequate to justify a legislative ban on nontherapeutic abortions.”⁶ As summarized by the district court, “[t]he record is clear: States may not ban abortions prior to viability; 15 weeks lmp is prior to viability; and plaintiffs provide abortion services to Mississippi residents after 15 weeks lmp.”⁷ Finally, rejecting the State’s argument that the Clinic could only seek an injunction up to 16 weeks LMP (since the Clinic does not provide abortions after that point), the district court permanently enjoined the Act in all applications.⁸

II.

This Court reviews a grant of summary judgment de novo, applying the same standard as the district court.⁹ Summary judgment is warranted “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.”¹⁰ A district court’s decision to limit discovery is

⁶ *Jackson Women’s Health Org. v. Currier*, 349 F. Supp. 3d 536, 539 (S.D. Miss. 2018) (quoting *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 883, 860 (1992) (plurality opinion)).

⁷ *Id.*

⁸ *Id.* at 543-45.

⁹ *Cuadra v. Hous. Indep. Sch. Dist.*, 626 F.3d 808, 812 (5th Cir. 2010).

¹⁰ FED. R. CIV. P. 56(a).

reviewed for abuse of discretion,¹¹ as is a district court's tailoring of injunctive relief.¹²

III.

The State raises five main arguments on appeal: (1) the Supreme Court's decision in *Gonzales v. Carhart* preserves the possibility that a "state's interest in protecting unborn life can justify a pre-viability restriction on abortion";¹³ (2) the district court abused its discretion by restricting discovery, thus stymying the State's effort to develop the record; (3) the district court failed to defer to the legislature's findings; (4) the Act imposes no undue burden, as it only shrinks by one week the window in which women can elect to have abortions; and (5) the Clinic lacked standing to challenge the Act's application after 16 weeks, the point at which the Clinic stops providing abortions under its own procedures.

These issues collapse to three: whether the summary-judgment order properly applies the Supreme Court's abortion jurisprudence, whether limiting discovery to viability was an abuse of discretion, and whether the scope of injunctive relief was proper.

A.

In *Roe v. Wade*, the Supreme Court held that the right to privacy "is broad enough to encompass a woman's decision whether or not to terminate her pregnancy."¹⁴ *Casey* "reaffirm[ed]" *Roe's* "recognition

¹¹ *Crosby v. La. Health Serv. & Indem. Co.*, 647 F.3d 258, 261 (5th Cir. 2011).

¹² *Liberto v. D.F. Stauffer Biscuit Co., Inc.*, 441 F.3d 318, 323 (5th Cir. 2005).

¹³ *Gonzales*, 55 U.S. 124 (2007).

¹⁴ 410 U.S. 113, 153 (1973).

of the right of the woman to choose to have an abortion before viability and to obtain it without undue interference from the State. Before viability, the State's interests are not strong enough to support a prohibition of abortion or the imposition of a substantial obstacle to the woman's effective right to elect the procedure."¹⁵

In *Gonzales*, the case on which the State's argument relies, the Court "assume[d] the following principles":

Before viability, a State "may not prohibit any woman from making the ultimate decision to terminate her pregnancy." It also may not impose upon this right an undue burden, which exists if a regulation's "purpose or effect is to place a substantial obstacle in the path of a woman seeking an abortion before the fetus attains viability." On the other hand, "[r]egulations which do no more than create a structural mechanism by which the State, or the parent or guardian of a minor, may express profound respect for the life of the unborn are permitted, if they are not a substantial obstacle to the woman's exercise of the right to choose." *Casey*, in short, struck a balance.¹⁶

¹⁵ *Casey*, 505 U.S. at 846; see also *Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2300 (2016) (citing *Casey* for the proposition that a law unduly burdens a woman's right to choose an abortion if it bans abortion "before the fetus attains viability").

¹⁶ *Gonzales*, 550 U.S. at 146 (citations omitted) (quoting *Casey*, 505 U.S. at 879, 878, and 877). The State makes much of the Court's assuming, rather than reaffirming or otherwise stating conclusively, these principles. But an assumption of a prior holding's validity is not a reversal of that holding. Nothing in *Gonzales* signals that we should decline to apply *Roe* and its descendants.

The district court applied these principles straightforwardly. It recognized, as the controlling standard in this case, *Casey's* holding that no state interest can justify a pre-viability abortion ban. The State conceded that it had no evidence of viability at 15 weeks LMP and that it is the Mississippi Department of Health's position that a fetus cannot survive outside the womb at 15 weeks LMP; accordingly, the court concluded that the Act prohibits pre-viability abortions.¹⁷ The Act's consequences were undisputed: Dr. Carr-Ellis averred that the Clinic provides an abortion to at least one woman per week after 14 weeks 6 days LMP, so the Act would force these women to carry their pregnancies to term against their will or to leave the state for an abortion.¹⁸ There was thus no dispute that the Act prohibited pre-viability abortions, which ended the district court's analysis.

This result accords with those reached by the circuit courts that have addressed similar abortion prohibitions. For example, the Ninth Circuit invalidated a ban at 20 weeks in *Isaacson v. Horne*;¹⁹ the Eighth Circuit invalidated bans at 6 and 12 weeks in *MKB*

¹⁷ *Jackson*, 349 F. Supp. 3d at 540.

¹⁸ *Id.*

¹⁹ 716 F.3d 1213, 1225 (9th Cir. 2013), *cert. denied*, 571 U.S. 1127 (2014); *see also id.* at 1217 (observing that the Supreme Court has been “unalterably clear” that “a woman has a constitutional right to choose to terminate her pregnancy before the fetus is viable”). The Ninth Circuit also invalidated Idaho's 20-week ban in *McCormack v. Herzog*, 788 F.3d 1017, 1029 (9th Cir. 2015) (“Because § 18-505 places an arbitrary time limit on when women can obtain abortions, the statute is unconstitutional.”).

*Management Corporation v. Stenehjem*²⁰ and *Edwards v. Beck*,²¹ respectively; and the Tenth Circuit invalidated a ban at 22 weeks in *Jane v. Bangerter*.²² Recent district court decisions have followed suit.²³

The State's primary constitutional argument on appeal is that the district court should have accounted for the State's interests and then determined whether the Act imposes an undue burden. The State argues that if the district court had done so, and if it had recognized that viability is not the only proper consideration in assessing the Act's lawfulness, it would have determined that the Act is constitutional.

The parties dispute whether the Act *bans* abortions or *regulates* them, a distinction vital to evaluating the Act's lawfulness. Pre-viability regulations of abortion procedures can pass constitutional muster if they do not pose an undue burden, which requires the weighing of state interests against the burden on a woman's

²⁰ 795 F.3d 768, 773 (8th Cir. 2015) (affirming a grant of summary judgment because a 6-week ban "generally prohibits abortions before viability"), *cert. denied*, 136 S. Ct. 981 (2016).

²¹ 786 F.3d 1113, 1117 (8th Cir. 2015) ("By banning abortions after 12 weeks' gestation, the Act prohibits women from making the ultimate decision to terminate a pregnancy at a point before viability."), *cert. denied*, 136 S. Ct. 895 (2016).

²² 102 F.3d 1112, 1115 (10th Cir. 1996), *cert. denied*, 520 U.S. 1274 (1997).

²³ See *Preterm-Cleveland v. Yost*, 394 F. Supp. 3d 796, 801 (S.D. Ohio 2019) (enjoining Ohio's 6-week ban); *EMW Women's Surgical Ctr., P.S.C. v. Beshear*, No. 3:19-CV-178, 2019 WL 1233575, at *2 (W.D. Ky. Mar. 15, 2019) (enjoining Kentucky's 6-week ban); *Bryant v. Woodall*, No. 1:16-CV-1368, 2019 WL 1326900, at *14-15 (M.D.N.C. Mar. 25, 2019) (invalidating North Carolina's 20-week ban); *Little Rock Family Planning Servs. v. Rutledge*, No. 4:19-CV-449, 2019 WL 3679623, at *1 (E.D. Ark. Aug. 6, 2019) (enjoining Arkansas's 18-week ban).

right to elective abortion.²⁴ If the Act is a regulation, then the State's interests should have been considered. Prohibitions on pre-viability abortions, however, are unconstitutional regardless of the State's interests because "a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy before viability."²⁵ "[V]iability marks the earliest point at which the State's interest in fetal life is constitutionally adequate to justify a legislative ban on nontherapeutic abortions."²⁶ Thus, if the Act is a ban, the State's interests cannot outweigh the woman's right to choose an abortion and the undue-burden balancing test has no place in this case.

The State casts the Act as a mere regulation of the time period during which abortions may be performed, akin to a regulation of the time, place, or manner of speech.²⁷ The State argues the Act is not a ban because it allows abortions before 15 weeks LMP, it contains exceptions, and, practically speaking, it only limits the relevant time frame by one week, since the Clinic (the

²⁴ See *Casey*, 505 U.S. at 878 ("To promote the State's profound interest in potential life, throughout pregnancy the State may take measures to ensure that the woman's choice is informed, and measures designed to advance this interest will not be invalidated as long as their purpose is to persuade the woman to choose childbirth over abortion. These measures must not be an undue burden on the right.").

²⁵ *Id.* at 879.

²⁶ *Id.* at 860.

²⁷ The district court observed that the Act's title betrays its effect: "The Act's full title is 'An Act to be Known As the Gestational Age Act; To Prohibit Abortions After 15 Weeks' Gestation.' 'Ban' and 'prohibit' are synonyms. This Act is a ban. It is not a regulation." *Jackson*, 349 F. Supp. 3d at 541.

only abortion provider in Mississippi) does not perform abortions after 16 weeks LMP.

Finally, the State likens the Act to the federal Partial-Birth Abortion Ban Act of 2003 that was upheld in *Gonzales v. Carhart*.²⁸ The *Gonzales* Court emphasized congressional findings that partial-birth abortion contravened governmental interests in “the dignity of human life” and “the integrity and ethics of the medical profession.”²⁹ Here, the State asserts the same interests on behalf of Mississippi, and likens the “brutal and inhumane” partial-birth abortion procedure to the State’s evidence of purported fetal pain.

In the State’s view, the district court should have evaluated, as did the *Gonzales* Court, whether the Act “place[s] a substantial obstacle in the path of a woman seeking an abortion before the fetus attains viability[.]”³⁰ Under this analysis, the State contends the Act “would likely be upheld, since it allows women up to three and a half months to decide whether to have an abortion.” Thus, the State argues that the relatively few women “who would be required to make their ultimate decision whether to have an abortion one week earlier” do not outweigh “the harm to the State by requiring it to permit inhumane abortion procedures which cause a fetus to experience pain—a factor the Supreme Court has never explicitly addressed.”³¹

These arguments do not save the Act from encroaching on the holding of *Casey*. The Act pegs the

²⁸ See *Gonzales*, 550 U.S. at 147.

²⁹ *Id.* at 157.

³⁰ *Id.* at 156 (quoting *Casey*, 505 U.S. at 878)).

³¹ In 2017, the State notes, 90 women had abortions at the Clinic after 15 weeks LMP.

availability of abortions to a specific gestational age that undisputedly prevents the abortions of some non-viable fetuses. It is a prohibition on pre-viability abortion.³² *Gonzales* is distinguishable for the same reason that any case considering a pre-viability *regulation* is distinguishable: laws that limit certain methods of abortion or impose certain requirements on those seeking abortions are distinct under *Casey* from those that prevent women from choosing to have abortions before viability.

In recognition of state interests, *Casey* allows restrictions on pre-viability abortions that are not an undue burden on a woman's right to elective abortion. The ban on partial-birth abortions in *Gonzales* is one example. But the Act is not such a restriction, so this legal principle, while valid, has no application here. *Casey* clarified that the "adoption of the undue burden analysis does not disturb the central holding of *Roe*": "a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy before viability."³³ This "central holding of *Roe*" is what the Act implicates here, as the State asks us to extend the undue-burden analysis past *Casey*'s clear demarcation. That the Act does not ban all abortions, but only those after 15 weeks LMP, does not change the fact that viability is the critical point.³⁴ Nor is the number

³² The Ninth Circuit rejected similar arguments in *Isaacson*, which stated that a prohibition at a certain pre-viability point "does not merely 'encourage' women to make a decision regarding abortion earlier than Supreme Court cases require; it forces them to do so." 716 F.3d at 1227.

³³ *Casey*, 505 U.S. at 879.

³⁴ See *Colautti v. Franklin*, 439 U.S. 379, 388-89 (1979) ("Because [the point of viability] may differ with each pregnancy, neither the legislature nor the courts may proclaim one of the

of affected women relevant to the Act's lawfulness, as *Casey* made clear that "a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy before viability."³⁵

The Act is a ban on certain pre-viability abortions, which *Casey* does not tolerate and which presents a situation unlike that in *Gonzales*. With respect to bans like this one, the Supreme Court's viability framework has already balanced the State's asserted interests and found them wanting: Until viability, it is for the woman, not the state, to weigh any risks to maternal health and to consider personal values and beliefs in deciding whether to have an abortion.³⁶

B.

Next, the State challenges the district court's decisions limiting discovery to the issue of viability and excluding expert testimony regarding fetal pain perception.

The scope of discovery is generally broad and allows for "any nonprivileged matter that is relevant to any party's claim or defense."³⁷ A court is afforded broad discretion when deciding discovery matters, but the court abuses its discretion when its decision is based

elements entering into the ascertainment of viability—be it weeks of gestation or fetal weight or any other single factor—as the determinant of when the State has a compelling interest in the life or health of the fetus. Viability is the critical point.”).

³⁵ *Casey*, 505 U.S. at 879 (emphasis added).

³⁶ *See id.* at 846, 853.

³⁷ *See* FED. R. CIV. P. 26(b)(1).

on an erroneous view of the law.³⁸ Still, we “will only vacate a court’s judgment if the court’s abuse of discretion affected the substantial rights of the appellant.”³⁹

The State argues the district court abused its discretion by limiting discovery to one issue—whether 15 weeks LMP is before or after viability. The State seeks a remand for development of a complete record in conjunction with the discovery being conducted for Part Two of this litigation. If a district court does not need to consider new evidence, the State argues, courts will remain “willfully blind” to scientific developments and the Supreme Court can never see a full record in an abortion case.

But the result of the State’s challenges to the district court’s discovery rulings flows from our holding that the Act unconstitutionally bans pre-viability abortions. No state interest is constitutionally adequate to ban abortions before viability, so the interests advanced here are legally irrelevant to the sole issue necessary to decide the Clinic’s constitutional challenge. Bound as the district court was by the viability framework, it was within its discretion to exclude this evidence.⁴⁰

³⁸ *Crosby v. La. Health Serv. & Indem. Co.*, 647 F.3d 258, 261 (5th Cir. 2011) (citing *Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383, 387 (5th Cir. 2009)).

³⁹ *Id.* (citing *Marathon Fin. Ins., Inc., RRG v. Ford Motor Co.*, 591 F.3d 458, 469 (5th Cir. 2009)).

⁴⁰ The Eighth Circuit, in *MKB Management*, affirmed the same discovery limitation that the district court imposed here—since “viability presents the central issue,” an “order limiting discovery to the issue of viability” was not an abuse of discretion. 795 F.3d at 773 n.4.

Finally, the State contends that the district court overreached in fashioning the permanent injunctive relief it granted to the Clinic. It argues that (1) the Clinic lacks standing to bring a facial challenge because the Clinic does not perform abortions after 16 weeks LMP and (2) the relief awarded by the district court is not narrowly tailored to the Clinic's alleged injury.

The State conflates standing with relief. A plaintiff must show standing “for each claim he seeks to press” and “each form of relief sought.”⁴¹ The Clinic has done so, as it pursued its constitutional claims on behalf of its patients, and its requested form of relief (permanent injunction of the Act) redressed the Act's pre-viability ban on abortions, which is an injury traceable to the State. This challenge to the *scope* of relief is better addressed in terms of the court's exercise of discretion in tailoring the remedy, not in terms of standing.

To that end, the State argues the district court should have narrowly tailored the permanent injunctive relief to the injury, which it contends is the Clinic's inability to perform abortions up to 16 weeks LMP. The State argues it was error to facially invalidate the Act without first considering its constitutionality as applied to the Clinic and its patients. The State asks us to vacate the relief granted and order the district court to craft a remedy tailored to its view of the actual dispute, which is whether the Act is unconstitutional as applied to abortions performed at or before 16 weeks LMP.

⁴¹ *DaimlerChrysler Corp v. Cuno*, 547 U.S. 332, 352 (2006).

In *June Medical Services v. Gee*, decided two months before the district court's order, we “resolve[d] the appropriate framework for reviewing facial challenges to abortion statutes.”⁴² We concluded that the Supreme Court eliminated the uncertainty by adopting, in *Hellerstedt*, the *Casey* plurality's test: An abortion restriction is facially invalid if “in a large fraction of the cases in which it is relevant, it will operate as a substantial obstacle.”⁴³ The relevant denominator includes only “those women for whom the provision is an actual rather than an irrelevant restriction[,]” which is a narrower category than “all women,” “pregnant women,” or even “women seeking abortions identified by the State.”⁴⁴

Here, the Act is invalid as applied to every Mississippi woman seeking an abortion for whom the Act is an actual restriction, never mind a large fraction of them.⁴⁵ And for those women, the obstacle is insurmountable, not merely substantial. That the Act applies both pre- and post-viability does not save it. Mississippi has already banned all abortions after 20 weeks by separate statute.⁴⁶ The only women to whom the Act is an actual restriction, then, are those who

⁴² 905 F.3d 787, 801 (5th Cir. 2018), *cert. granted*, --- S. Ct. ---, 2019 WL 4889929 (mem.) (Oct. 4, 2019).

⁴³ *Id.* at 801-02 (quoting *Casey*, 505 U.S. at 895). We noted that earlier decisions had used the “no set of circumstances” standard of *United States v. Salerno*, 481 U.S. 739, 745 (1987). *Id.*

⁴⁴ *Id.* (quoting *Hellerstedt*, 136 S. Ct. at 2320).

⁴⁵ *Jackson*, 349 F. Supp. 3d at 544. Of course, as the district court acknowledged, the practical result of as-applied relief would be the same as that of facial relief, since the Clinic is the only abortion provider in Mississippi.

⁴⁶ See MISS. CODE ANN. § 41-41-137 (prohibiting anyone from performing abortions after 20 weeks' gestational age).

seek abortions before 20 weeks; the Act is redundant of existing Mississippi law as to all abortions after that point. This is the tack taken by the Ninth Circuit in *Isacson*, where Arizona’s 20-week ban only had practical significance until viability because Arizona separately bans post-viability abortion:

[G]iven the controlling, substantive legal standards, [the 20-week law] is invalid as applied to every woman affected by its prohibition on abortions. In other words, there is a one hundred percent correlation between those whom the statute affects and its constitutional invalidity as applied to them. . . . [G]iven the one hundred percent correlation, there is no doubt the special rule that applies to facial challenges in abortion cases—that plaintiffs need only show the law challenged is invalid “in a large fraction of the cases in which [the statute] is relevant[.]”⁴⁷

In *Sojourner T v. Edwards*, we facially invalidated a Louisiana ban criminalizing nearly *all* abortions because its pre-viability applications were clearly unconstitutional under *Casey*.⁴⁸ We did so without discussing its theoretically valid post-viability applications (although the Clinic notes that, as has Mississippi here and as had Arizona in *Isacson*, Louisiana had otherwise banned post-viability abortions, making these possible applications redundant).⁴⁹

Even if we disregarded the separate Mississippi abortion law and even if we were to expand the

⁴⁷ *Isacson*, 716 F.3d at 1230-31.

⁴⁸ 974 F.2d 27, 31 (5th Cir. 1992).

⁴⁹ See LA. STAT. ANN. § 40:1061.13.

denominator to include all women seeking abortions rather than only those seeking them before 20 weeks (the period when the Act alters Mississippi law) or those seeking them between 15 and 16 weeks (when the Act has practical significance for women visiting the state's sole abortion provider), the Act would still pose a substantial obstacle in a "large fraction" of cases.⁵⁰ It might be plainer still simply to say what other courts have said in similar cases: This law is facially unconstitutional because it directly conflicts with *Casey*.⁵¹ Accordingly, the district court did not

⁵⁰ Under this broader view, we would also reach this determination because we recognize that it is not our role to rewrite an unconstitutional statute. *See United States v. Stevens*, 559 U.S. 460, 481 (2010) ("We will not rewrite a . . . law to conform it to constitutional requirements, for doing so would constitute a serious invasion of the legislative domain . . .") (internal quotation marks and citations omitted) (first alteration in original); *see also Women's Med. Profl Corp. v. Voinovich*, 130 F.3d 187, 202 (6th Cir. 1997) (concluding that a ban on the abortion procedure of dilation and extraction was unconstitutional as applied to pre-viability procedures but not as to post-viability procedures but striking the entire statute since the court "essentially would have to rewrite the Act in order to create a provision which could stand by itself"); *R.I. Med. Soc. v. Whitehouse*, 239 F.3d 104, 106 (1st Cir. 2001) (striking down statute banning so-called partial birth abortion procedure despite severability provision because the statute "contain[ed] no provisions, sections, subsections, sentences, clauses, phrases or words distinguishing between nonviable and viable fetuses, which would make it capable of being severed").

⁵¹ *See Jane L v. Bangerter*, 102 F.3d 1112, 1116 n.4 (10th Cir. 1996) ("For a woman seeking the nontherapeutic abortion of a fetus that is not viable despite fitting the statutory definition in [the Utah ban on abortions after 20 weeks], however, that section goes beyond creating a hindrance and imposes an outright ban. Rather than apply [*Casey*] in these circumstances, it may be more appropriate simply to conclude that the section is invalid as contrary to controlling Supreme Court precedent precluding a legislature from defining the critical fact of viability as Utah has

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abuse its discretion in declining to fashion relief narrowly just because the result of the Clinic's internal policies is that no facility in Mississippi provides abortions after 16 weeks LMP.⁵²

IV.

We affirm the judgment of the district court.

done here.”); *see also McCormack v. Herzog*, 788 F.3d 1017, 1030 (9th Cir. 2015) (concluding 20-week ban was “directly contrary” to *Casey* and thus “facially unconstitutional”).

⁵² The Eighth Circuit has similarly affirmed relief that was not limited to the abortion clinic's practices. *MKB Mgmt. Corp. v. Burdick*, 16 F. Supp. 3d 1059, 1075 (D.N.D. 2014), *aff'd*, 795 F.3d 768 (8th Cir. 2015) (granting complete injunction against 6-week ban even though the plaintiff clinic stopped performing abortions at 16 weeks).

JAMES C. HO, Circuit Judge, concurring in the judgment:

Nothing in the text or original understanding of the Constitution establishes a right to an abortion. Rather, what distinguishes abortion from other matters of health care policy in America—and uniquely removes abortion policy from the democratic process established by our Founders—is Supreme Court precedent. The parties and amici therefore draw our attention not to what the Constitution says, but to what the Supreme Court has held.¹

A good faith reading of those precedents requires us to affirm. Tellingly, the able counsel who brought this appeal on behalf of the State of Mississippi did not even request oral argument, notwithstanding the high stakes for their clients—the constitutionality of a recent enactment of profound moral significance to the citizens of Mississippi. That omission makes no sense but for the fact that Supreme Court precedent requires affirmance.

¹ It is well established that this body of precedent admittedly rests not on constitutional text, but on a doctrine of unenumerated, judicially created rights. Justice Blackmun once said, for example, that doctrines “[l]ike the *Roe* framework . . . are not, and do not purport to be, rights protected by the Constitution.” *Webster v. Reprod. Health Servs.*, 492 U.S. 490, 548 (1989) (Blackmun, J., concurring in part and dissenting in part). See also *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 847, 853 (1992) (discussing judicial enforcement of rights like abortion that are “mentioned nowhere in the Bill of Rights”); *Roe v. Wade*, 410 U.S. 113, 152-53 (1973) (admitting that “[t]he Constitution does not explicitly mention” rights like abortion); *Washington v. Glucksburg*, 521 U.S. 702, 756, 763 (1997) (Souter, J., concurring in the judgment) (discussing the Supreme Court’s “practice in recognizing unenumerated, substantive limits on governmental action” in areas such as abortion).

I am nevertheless deeply troubled by how the district court handled this case. The opinion issued by the district court displays an alarming disrespect for the millions of Americans who believe that babies deserve legal protection during pregnancy as well as after birth, and that abortion is the immoral, tragic, and violent taking of innocent human life. Notably, the States of Texas and Louisiana devote the majority of their amicus brief to the unusual but unfortunately warranted request that we explicitly disapprove of the district court opinion.

The district court no doubt believes that its opinion faithfully reflects one side of the debate—the side that believes that abortion is a necessary component of a woman’s personal autonomy. But the Supreme Court has made clear that *both* sides of the debate deserve respect. “Men and women of good conscience can disagree . . . about the profound moral and spiritual implications of terminating a pregnancy.” *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833, 850 (1992). Countless Americans believe in good faith that abortion is “nothing short of an act of violence against innocent human life.” *Id.* at 852. The majority in *Casey* even acknowledged that “[s]ome of us as individuals find abortion offensive to our most basic principles of morality.” *Id.* at 850.

Instead of respecting all sides, the district court opinion disparages the Mississippi legislation as “pure gaslighting.” It equates a belief in the sanctity of life with sexism, disregarding the millions of women who strongly oppose abortion. And, without a hint of irony, it smears Mississippi legislators by linking House Bill 1510 to the state’s tragic history of race relations, while ignoring abortion’s own checkered racial past.

Supreme Court precedent dictates abortion policy in America. So I am duty bound to affirm the judgment of the district court. But I cannot affirm the opinion of the district court.

I.

Like every other court to consider the issue, the majority concludes that *Casey* prohibits any and all bans on pre-viability abortions. *See, e.g., Casey*, 505 U.S. at 879 (plurality opinion) (“[A] State may not prohibit any woman from making the ultimate decision to terminate her pregnancy before viability.”); *see also Gonzales v. Carhart*, 550 U.S. 124, 146 (2007).²

² *See also, e.g., W. Ala. Women’s Ctr. v. Williamson*, 900 F.3d 1310, 1314 (11th Cir. 2018) (“At [the 15 to 18 week stage of fetal development], it is settled under existing Supreme Court decisions that the State of Alabama cannot forbid [dilation and evacuation abortions] entirely.”); *id.* at 1330 (Dubina, J., concurring specially) (same); *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of the Ind. State Dep’t of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc) (“*Casey* and other decisions hold that, until a fetus is viable, a woman is entitled to decide whether to bear a child.”); *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of the Ind. State Dep’t of Health*, 888 F.3d 300, 305 (7th Cir. 2018), *judgment vacated in part sub nom. Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1782 (2019) (per curiam) (“*Casey*’s holding that a woman has the right to terminate her pregnancy prior to viability is categorical.”); *id.* at 311 (Manion, J., concurring in the judgment in part and dissenting in part) (“[T]he fact remains that *Casey* has plainly established an absolute right to have an abortion before viability.”); *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 (8th Cir. 2015) (“[W]e are bound by Supreme Court precedent holding that states may not prohibit pre-viability abortions.”); *McCormack v. Herzog*, 788 F.3d 1017, 1029 (9th Cir. 2015) (banning “all abortions between twenty weeks gestational age and viability . . . is directly contrary to the Court’s central holding in *Casey* that a woman has the right to ‘choose to have an abortion before viability and to obtain it without undue interference

The majority therefore concludes that, as a ban on abortions that Mississippi admits occur prior to viability, HB 1510 is inconsistent with *Casey*.

I am aware of no judicial opinion that reads *Casey* differently, and Mississippi and its amici provide none. To the contrary, Mississippi concedes that HB 1510 would be held unconstitutional in every circuit that has addressed such issues to date. I am forced to agree with the majority’s application of Supreme Court precedent to this recently enacted and sincerely

from the State”) (quoting *Casey*, 505 U.S. at 846); *Edwards v. Beck*, 786 F.3d 1113, 1116-17 (8th Cir. 2015) (per curiam) (enjoining a law “banning abortions after 12 weeks’ gestation” because it “prohibits women from making the ultimate decision to terminate a pregnancy at a point before viability”); *Isaacson v. Horne*, 716 F.3d 1213, 1226 (9th Cir. 2013) (“There is therefore no doubt that the twenty-week law operates as a ban on pre-viability abortion and that it cannot stand under the viability rule enunciated repeatedly by the Supreme Court, this circuit, and other circuits.”); *id.* at 1233-34 (Kleinfeld, J., concurring) (law barring pre-viability abortions “unquestionably put[s] a ‘substantial obstacle’ in the path of a woman seeking to abort a previability fetus”); *Greenville Women’s Clinic v. Bryant*, 222 F.3d 157, 165 (4th Cir. 2000) (“[*Casey*] reaffirmed the ‘essential holding’ of *Roe*—that a woman has a constitutional right to ‘choose to have an abortion before viability and to obtain it without undue interference from the State.”) (quoting *Casey*, 505 U.S. at 846); *Jane L. v. Bangerter*, 102 F.3d 1112, 1117-18 (10th Cir. 1996) (“[S]ection 302(3) actually operates as an impermissible ban on the right to abort a nonviable fetus.”); *Sojourner T v. Edwards*, 974 F.2d 27, 30 (5th Cir. 1992) (“[*Casey*] held that before viability, a State’s interests are not strong enough to support a prohibition of abortion.”); *id.* at 31 (Garza, J., concurring specially) (same); *Little Rock Family Planning Servs. v. Rutledge*, 397 F. Supp. 3d 1213, 1270 (E.D. Ark. 2019); *Bryant v. Woodall*, 363 F. Supp. 3d 611, 627-28 (M.D.N.C. 2019); *EMW Women’s Surgical Ctr. v. Beshear*, 2019 WL 1233575, at *1 (W.D. Ky. Mar. 15, 2019).

motivated law, and to conclude that we are duty bound to affirm the judgment.

For its part, Mississippi asserts various interests to justify the law. Among them, the State most vigorously presses its interest in avoiding pain to the unborn baby. To support that interest, Mississippi proffered the declaration of an expert, Dr. Maureen Condic, a professor of neurobiology at the University of Utah who specializes in the development and regeneration of the nervous system.

In her declaration, Dr. Condic explained that, based on current scientific evidence, “[d]uring the time period covered by [HB 1510], the human fetus is likely to be capable of conscious pain perception.” She indicated that fetuses may be able to feel pain as early as ten weeks from the last menstrual period (LMP), when “[t]he neural circuitry responsible for the most primitive response to pain . . . is in place.” At that point, the “fetus . . . actively withdraw[s] from . . . painful stimulus.” That is consistent with the Legislature’s finding that, “[a]t twelve weeks [LMP], an unborn human being . . . senses stimulation from the world outside the womb.” Gestational Age Act, ch. 393, § 1(2)(b)(i)(6), 2018 Miss. Laws 606, 607.

Furthermore, Dr. Condic noted that it was “universally accepted” that a fetus has a neural network “capable of pain perception” at some point “between [14–20] weeks” LMP. She then discussed various studies showing that fetuses physically respond to painful experiences, including “a recent review of the evidence” that “conclude[d] that from the [fifteenth week LMP] onward, ‘the fetus is extremely sensitive to painful stimuli, and that this fact should be taken into account when performing invasive medical procedures on the fetus.’” Based on that evidence, Mississippi

argues that nontherapeutic (that is, medically unnecessary) abortions after fifteen weeks LMP are “barbaric” and “brutal and inhumane” and, as such, undermine the State’s interest in the life of the unborn child.³

A State has an unquestionably legitimate (if not compelling) interest in preventing gratuitous pain to the unborn. Consider how the Supreme Court has construed the Cruel and Unusual Punishments Clause of the Eighth Amendment to forbid executions of convicted murderers that involve unnecessary pain. *See Baze v. Rees*, 553 U.S. 35, 49 (2008) (plurality opinion) (“Our cases recognize that subjecting individuals to a risk of future harm—not simply actually inflicting pain—can qualify as cruel and unusual punishment.”). It would be surprising if the Constitution *requires* States to use execution methods that avoid causing unnecessary pain to convicted murderers, but

³ Judge Jones has made similar observations: “[N]eonatal and medical science . . . now graphically portrays, as science was unable to do 31 years ago, how a baby develops sensitivity to external stimuli and to pain much earlier than was then believed.” *McCorvey v. Hill*, 385 F.3d 846, 852 (5th Cir. 2004) (Jones, J., concurring). She noted that the record contained “submissions from numerous individuals, each holding an MD or PhD, reporting that unborn children are sensitive to pain from the time of conception, and relying on peer-reviewed, scientific journals.” *Id.* at 852 n.6 (also citing David H. Munn et al., *Prevention of Allogeneic Fetal Rejection by Tryptophan Catabolism*, 281 *SCIENCE* 1191 (1998), and Patrick W. Mantyh et al., *Inhibition of Hyperalgesia by Ablation of Lamina I Spinal Neurons Expressing the Substance P Receptor*, 278 *SCIENCE* 275 (1997)). She ultimately concluded that, “if courts were to delve into the facts underlying *Roe*’s balancing scheme with present-day knowledge, they might conclude that the woman’s ‘choice’ is far more risky and less beneficial, and the child’s sentience far more advanced, than the *Roe* Court knew.” *Id.* at 852.

does not even *permit* them from preventing abortions that cause unnecessary pain to unborn babies.

Not surprisingly, then, members of the Supreme Court have acknowledged that avoidance of pain is indeed a valid state interest in the abortion context. Both Justice Blackmun and Justice Stevens have thought “it obvious that the State’s interest in the protection of an embryo . . . increases progressively and dramatically as the organism’s capacity to feel pain, to experience pleasure, to survive, and to react to its surroundings increases day by day.” *Webster v. Reprod. Health Servs.*, 492 U.S. 490, 552 (1989) (Blackmun, J., concurring in part and dissenting in part) (quoting *Thornburgh v. Am. Coll. of Obstetricians & Gynecologists*, 476 U.S. 747, 778 (1986) (Stevens, J., concurring)). *See also id.* at 569 (Stevens, J., concurring in part and dissenting in part) (“There can be no interest in protecting the newly fertilized egg from physical pain or mental anguish, because the capacity for such suffering does not yet exist; respecting a developed fetus, however, that interest is valid.”).

The State of Mississippi did not cite any of those authorities. That is presumably because, although *Casey* acknowledged that “time has overtaken some of *Roe*’s factual assumptions,” and that further developments in science and medicine may warrant further legal change, the Court ultimately fixed the line at viability, not pain. 505 U.S. at 860.

Because *Casey* establishes viability as the governing constitutional standard, I am duty bound to conclude that the district court did not abuse its discretion in forbidding discovery and fact development on the issue of pain. But neither would it have been an abuse of discretion if the district court had *permitted* discovery and fact development on the issue of pain.

As the Federal Rules of Civil Procedure state, discovery may be permitted for “any nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case, considering [*inter alia*] the importance of the issues at stake in the action.” FED. R. CIV. P. 26(b)(1). Relevance “encompass [es] any matter that bears on, or that could reasonably lead to other matter that could bear on, any issue that is or may be in the case.” *Oppenheimer Fund, Inc. v. Sanders*, 437 U.S. 340, 351 (1978).

Notably, nothing in the Federal Rules of Civil Procedure forecloses discovery based on a good faith expectation of legal change. To the contrary, the Rules expressly envision that parties may need to litigate in anticipation of such change. *See, e.g.*, FED. R. CIV. P. 11(b)(2) (permitting parties to make “claims, defenses, and other legal contentions . . . warranted by existing law or by a nonfrivolous argument for extending, modifying, or reversing existing law or for establishing new law”); FED. R. CIV. P. 26(g)(1)(B)(i) (permitting “discovery request[s]” that are, *inter alia*, “warranted by existing law or by a nonfrivolous argument for extending, modifying, or reversing existing law, or for establishing new law”); *Mount Hope Church v. Bash Back!*, 705 F.3d 418, 425 (9th Cir. 2012) (“Federal Rule of Civil Procedure 26(g)(1)(B) requires parties seeking discovery to act . . . consistently with the rules of existing law or with good reason to change the law.”); *Builders Ass’n of Greater Chi. v. City of Chicago*, 215 F.R.D. 550, 554 (N.D. Ill. 2003) (noting that a subpoena is unduly burdensome “if the information is wholly irrelevant under any reasonable legal theory,” but not if it rests on “a basis for a good faith argument for the extension, modification, or reversal of existing law”).

Federal courts in other circuits have thus permitted, as well as denied, fact development on the issue of fetal pain. Compare *Bryant v. Woodall*, 2017 WL 1292378, at *7 (M.D.N.C. Apr. 7, 2017) (permitting discovery), with *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 n.4 (8th Cir. 2015) (affirming an “order limiting discovery to the issue of viability”).

So nothing prevented the district court from allowing Mississippi to pursue discovery and to develop facts necessary to its defense—including for the purpose of arguing for a change in precedent on appeal. Indeed, that is what occurred in both the Kansas and Delaware trial court proceedings leading up to the Supreme Court’s landmark ruling in *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954).

Prior to *Brown*, two Supreme Court decisions—*Plessy v. Ferguson*, 163 U.S. 537 (1896) and *Gong Lum v. Rice*, 275 U.S. 78 (1927)—governed the constitutionality of segregated primary and high schools. *Brown v. Bd. of Educ. of Topeka*, 98 F. Supp. 797, 800 (D. Kan. 1951). Under those precedents, any evidence that “segregation itself” would result in African American students “receiving inferior educational opportunities . . . was immaterial to the [constitutional] conclusion.” *Gebhart v. Belton*, 91 A.2d 137, 153 (Del. 1952). Yet the trial courts in both Kansas and Delaware nevertheless made findings that segregated schools would result in “a feeling of inferiority” in African American students—in language that all but amounted to a direct challenge to then-governing Supreme Court precedent. See *Brown*, 347 U.S. at 494 & n.10 (quoting findings).

What’s more, the Supreme Court *credited* those findings in *Brown*. The Court noted that “[t]he effect of [segregation on African American students] was

well stated by a finding in the Kansas case by a court which nevertheless felt compelled to rule against the [African American] plaintiffs.” *Id.* at 494. And it noted that “[a] similar finding was made in the Delaware case.” *Id.* at 494 n.10 (quoting finding).

In sum, in the run-up to *Brown*, trial courts permitted fact development, considered the evidence, and even issued findings of fact on an issue that was legally irrelevant under then-governing Supreme Court precedent. Nothing prevented the district court from doing the same here.

The district court’s unwillingness to follow the path of the trial courts in *Brown* may not be reversible error. But it is unfortunate. If courts grant convicted murderers the right to discovery to mitigate pain from executions, there’s no reason they shouldn’t be even more solicitous of innocent babies.⁴

II.

Having invoked relevance to deny evidentiary development concerning fetal pain, the district court then ignored relevance to consider a wide range of historical matters entirely unconnected to the enactment of HB 1510 in order to impugn the motivations

⁴ Judge Jones has drawn similar comparisons. *See McCorvey*, 385 F.3d at 852 (Jones, J., concurring) (“[B]ecause the Court’s rulings have rendered basic abortion policy beyond the power of our legislative bodies, the arms of representative government may not meaningfully debate McCorvey’s evidence. The perverse result of the Court’s having determined through constitutional adjudication this fundamental social policy, which affects over a million women and unborn babies each year, is that the facts no longer matter. This is a peculiar outcome for a Court so committed to ‘life’ that it struggles with the particular facts of dozens of death penalty cases each year.”).

of citizens and policymakers who believe in the sanctity of life.

It is worth quoting the district court in full:

[T]his Court concludes that the Mississippi Legislature’s professed interest in “women’s health” is pure gaslighting. In its legislative findings justifying the need for this legislation, the Legislature cites *Casey* yet defies *Casey*’s core holding. The State “ranks as the state with the most [medical] challenges for women, infants, and children” but is silent on expanding Medicaid. Ryan Sit, *Mississippi has the Highest Infant Mortality Rate and is Expected to Pass the Nation’s Strictest Abortion Bill*, Newsweek, March 19, 2018. Its leaders are proud to challenge *Roe* but choose not to lift a finger to address the tragedies lurking on the other side of the delivery room: our alarming infant and maternal mortality rates. See, e.g., Lynn Evans, *Maternal Deaths Still on the Increase*, The Clarion Ledger, March 31, 2018; Danielle Paquette, *Why Pregnant Women in Mississippi Keep Dying*, Wash. Post, April 24, 2015.

No, legislation like H.B. 1510 is closer to the old Mississippi—the Mississippi bent on controlling women and minorities. The Mississippi that, just a few decades ago, barred women from serving on juries “so they may continue their service as mothers, wives, and homemakers.” *State v. Hall*, 187 So.2d 861, 863 (Miss. 1966). The Mississippi that, in Fannie Lou Hamer’s reporting, sterilized six out of ten black women in Sunflower County at the local hospital—against their will. See Rickie

Solinger, *Wake Up Little Susie* 57 (1992). And the Mississippi that, in the early 1980s, was the last State to ratify the 19th Amendment—the authority guaranteeing women the right to vote. See Marjorie Julian Spruill & Jesse Spruill Wheeler, *Mississippi Women and the Woman Suffrage Movement*, Mississippi History Now.

Jackson Women’s Health Org. v. Currier, 349 F. Supp. 3d 536, 540 n.22 (S.D. Miss. 2018). The court went on:

The Mississippi Legislature has a history of disregarding the constitutional rights of its citizens. See, e.g., *Alexander v. Holmes Cty. Bd. of Ed.*, 396 U.S. 19, 20 (1969) (15 years after *Brown v. Board*, Mississippi continued to maintain segregated schools, prompting the Supreme Court to tell the State that it was “the obligation of every school district . . . to terminate dual school systems at once and to operate now and hereafter only unitary schools.”); *Campaign for Southern Equality v. Bryant*, 791 F.3d 625, 627 (5th Cir. 2015) (striking down Mississippi’s ban on same-sex marriage, explaining that “*Obergefell*, in both its Fourteenth and First Amendment iterations, is the law of the land and, consequently, the law of this circuit”); *ACLU v. Fordice*, 969 F. Supp. 403, 405 (S.D. Miss. 1994) (reciting how State legislature created and funded the Sovereignty Commission “to maintain racial segregation in the South despite orders to the contrary by the United States Supreme Court. As the secret intelligence arm of the State, the Commission engaged in a wide variety of unlawful activity”); *Jackson Women’s*

Health Organization v. Amy, 330 F. Supp. 2d 820 (S.D. Miss. 2004) (enjoining state statute that eliminated organization’s ability to perform abortions early in second trimester); *Campaign for Southern Equality v. Miss. Dep’t of Hum. Serv.*, 175 F. Supp. 3d 691, 697 (S.D. Miss. 2016) (striking down Mississippi statute prohibiting adoption by married gay couples); *Stewart v. Waller*, 404 F. Supp. 206 (N.D. Miss. 1975) (striking down at-large alderman election statute as purposeful device conceived to violate the Fourteenth and Fifteenth Amendments in furtherance of racial discrimination).

Id. at 543 n.40.

I find it deeply disquieting that a federal court would disparage the millions of Americans who believe in the sanctity of life as nothing more than “bent on controlling women and minorities” and “disregarding their rights as citizens.” Those insults not only directly conflict with the Supreme Court’s admonitions that both sides of the debate deserve respect—they are also demonstrably incorrect.

A.

Consider, for example, the district court’s claim that it is sexist to believe in the protection of the unborn. The Supreme Court has articulated precisely the opposite sentiment: “Whatever one thinks of abortion, it cannot be denied that there are common and respectable reasons for opposing it, other than hatred of, or condescension toward (or indeed any view at all concerning), women as a class—as is evident from the fact that men and women are on both sides of the issue.” *Bray v. Alexandria Women’s Health Clinic*, 506

U.S. 263, 270 (1993). *See also id.* at 326 (Stevens, J., dissenting) (acknowledging that “many women *oppose* abortion”). “Men and women of good conscience can disagree . . . about the profound moral and spiritual implications of terminating a pregnancy.” *Casey*, 505 U.S. at 850.⁵

Moreover, according to a reputable survey of national opinion, *more* women than men describe themselves as “pro-life.” *Abortion Trends by Gender*, GALLUP, <https://news.gallup.com/poll/245618/abortion-trends-gender.aspx> (last visited Dec. 2, 2019) (noting that, in 2019, 51% of women and 46% of men in the United States self-identify as “pro-life”). Likewise, many feminists, both past and present, view “abortion [as] part and parcel of women’s oppression.” MARY KRANE DERR & LINDA NARANJO-HUEBL, *PROLIFE FEMINISM: YESTERDAY & TODAY* 12 (Rachel MacNair ed. 1995). *See also, e.g., id.* at 5 (“[T]here is a motif in feminism which began long ago and has endured to the present day. This is the theme of abortion as an injustice against fetal life which originates with injustice against female life.”); Brief Amici Curiae of Feminists for Life of America; Massachusetts Citizens for Life, Inc.; Pro-Life Legal Defense Fund, Inc.; and University Faculty for Life in Support of Petitioners, *Stenberg v. Carhart*, 530 U.S. 914 (2000) (No. 99-830), 2000 WL 207161, at *1 (“[Feminists for Life] is dedicated to securing basic human rights for all people, especially women and children, from conception until the natural end of life. Among its members are women who oppose [partial-birth abortion] as a threat to the lives of

⁵ The district court did not acknowledge this statement from *Casey*. Compare *Jackson Women’s Health Org.*, 349 F. Supp. 3d at 540 n.22 (disparaging the Mississippi Legislature for “defy[ing]” *Casey*).

women and children.”); Erika Bachiochi, *Embodied Equality: Debunking Equal Protection Arguments for Abortion Rights*, 34 HARV. J.L. & PUB. POL’Y 889, 890 (2011) (“[A] growing segment of women instead echoes the views of the early American feminists, who believed that abortion was not only an egregious offense against the most vulnerable human beings, but that it was also an offense against women and women’s equality.”).

B.

What’s more, the district court’s claim that it is racist to believe in the sanctity of life is particularly noxious, considering the racial history of abortion advocacy as a tool of the eugenics movement.

Eugenics—the concept of improving the human race through control of the reproductive process—has frequently been associated with explicitly racist viewpoints. “Many eugenicists believed that the distinction between the fit and the unfit could be drawn along racial lines.” *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1785 (2019) (Thomas, J., concurring) (providing examples). Many eugenics programs, such as sterilization, explicitly targeted minorities—as the district court rightly acknowledged. *Jackson Women’s Health Org.*, 349 F. Supp. 3d at 541 n.22 (noting that “Mississippi . . . sterilized six out of ten black women in Sunflower County at the local hospital—against their will”).

“From the beginning, birth control and abortion were promoted as means of effectuating eugenics.” *Box*, 139 S. Ct. at 1787 (Thomas, J., concurring). *See also id.* (“[A]bortion is an act rife with the potential for eugenic manipulation.”); *id.* at 1788 (discussing Margaret Sanger’s view that birth control would help

control the African American population); *id.* at 1789 (“Support for abortion can . . . be found throughout the literature on eugenics.”); DAVID T. BEITO & LINDA ROYSTER BEITO, *BLACK MAVERICK: T.R.M. HOWARD’S FIGHT FOR CIVIL RIGHTS AND ECONOMIC POWER* 215 (2009) (noting that some African American civil rights leaders “fretted about the racist implications of abortion”). Indeed, among past abortion advocates were “some eugenicists [who] believed that abortion should be legal for the very *purpose* of promoting eugenics.” *Box*, 139 S. Ct. at 1789 (Thomas, J., concurring).

Advocates of eugenics might well celebrate, then, that abortion “has proved to be a disturbingly effective tool for implementing the discriminatory preferences that undergird eugenics.” *Id.* at 1790-91 (Thomas, J., concurring) (providing examples). *See also id.* at 1791 (noting that the current “abortion ratio . . . among black women is nearly 3.5 times the ratio for white women”); William McGurn, *White Supremacy and Abortion*, WALL ST. J. (Sept. 24, 2019), <https://www.wsj.com/articles/white-supremacy-and-abortion-11567460392> (discussing “why so many African-Americans, especially African-American women, have been leaders in the pro-life cause”); *id.* (“Catherine Davis of the Restoration Project . . . notes that the estimated 20 million black abortions since *Roe v. Wade* in 1973 are more than the entire African-American population in 1960.”).⁶

⁶ Abortion proponents have expressed similar concerns. *See* Elizabeth Dias & Lisa Lerer, *How a Divided Left Is Losing the Battle on Abortion*, N.Y. TIMES (Dec. 1, 2019), <https://nyti.ms/34ypQkN> (“If all we do as an organization is pay for abortions for low-income people, we are eugenicists.”) (quoting Amanda Reyes, director of the Yellowhammer Fund).

Given the links between abortion and eugenics, accepting the district court’s logic—connecting Mississippi’s own tragic racial history with the recent enactment of HB 1510—means that the history of abortion advocacy must likewise haunt modern proponents of permissive abortion policies, and infect them with the taint of racism as well. So where does that leave us? Are *both* sides of the abortion debate racist? I don’t imagine the district court would say so. And if not, then the principle invoked by the district court is no principle at all, but merely an instrument with which to bludgeon one side of the abortion debate.⁷

⁷ The district court opinion not only belittles one side of the abortion debate—it also defies our Founders’ vision of the judiciary, when it states that “[t]he fact that men, myself included, are determining how women may choose to manage their reproductive health is a sad irony not lost on the Court.” *Jackson Women’s Health Org.*, 349 F. Supp. 3d at 545. To begin with, that statement confuses the role of the courts with that of the legislative branch. The courts did not enact HB 1510 into law—the Mississippi Legislature did. No federal judge anywhere in the nation—and certainly none who respect the proper role of the judiciary under our Constitution—would impose a policy like HB 1510 from the bench. *See, e.g., Casey*, 505 U.S. at 979 (Scalia, J., concurring in the judgment in part and dissenting in part) (“The States may, if they wish, permit abortion on demand, but the Constitution does not *require* them to do so.”). Moreover, the suggestion that a judge’s demographic background bears upon the validity or intellectual integrity of a decision reflects a troubling view of judging. It is a direct attack on the principle of judicial objectivity and impartiality—that judges rule based on legal principle alone, without regard to the demographics of the parties or the judge. Our Founders famously envisioned a judiciary capable of ruling based on “judgment,” not “will.” THE FEDERALIST NO. 78, at 464 (Alexander Hamilton) (Kesler ed., 1999). *See also, e.g., id.* at 470 (“To avoid an arbitrary discretion in the courts, it is indispensable that they should be bound down by strict rules and precedents.”).

Federal judges are not elected. Yet the Constitution grants us life tenure. That is not because we are supposed to decide cases based on personal policy preference. It is because we swear an oath to rule based on legal principle alone. I share in the concern, expressed by every state in this circuit, that the district court did not discharge that duty here, and that its opinion diminishes public confidence in the federal judiciary.

It is troubling enough to many Americans of good faith that federal courts, without any basis in constitutional text or original meaning, restrict the ability of states to regulate in the area of abortion. But that is of course what decades of Supreme Court precedent mandates. Accordingly, I am required to affirm.

It adds insult to injury, however, for a federal court to go further and to impugn the motives of those good faith Americans. When that occurs, citizens may rightfully wonder whether judges are deciding disputes based on the Rule of Law or on an altogether different principle. Replacing the Rule of Law with a regime of Judges Know Better is one that neither the Founders of our country nor the Framers of our Constitution would recognize.

I concur in the judgment.

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APPENDIX B

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

[Filed January 17, 2020]

No. 18-60868

JACKSON WOMEN'S HEALTH ORGANIZATION, on behalf
of itself and its patients; SACHEEN CARR-ELLIS, M.D.,
M.P.H., on behalf of herself and her patients,

Plaintiffs-Appellees,

v.

THOMAS E. DOBBS, M.D., M.P.H., in his official
capacity as State Health Officer of the Mississippi
Department of Health; KENNETH CLEVELAND, M.D.,
in his official capacity as Executive Director of the
Mississippi State Board of Medical Licensure,

Defendants-Appellants.

Appeal from the United States District Court
for the Southern District of Mississippi

ON PETITIONS FOR REHEARING EN BANC
(Opinion 12/13/2019, 5 Cir., ____, ____ F.3d ____)
Before HIGGINBOTHAM, DENNIS, and HO, Circuit
Judges.*

* Judge Duncan did not participate in the consideration of the rehearing en banc.

PER CURIAM:

- (✓) Treating the Petitions for Rehearing En Banc as Petitions for Panel Rehearing, the Petitions for Panel Rehearing are DENIED. No member of the panel nor judge in regular active service of the court having requested that the court be polled on Rehearing En Banc (FED. R. APP. P. and 5th CIR. R. 35), the Petitions for Rehearing En Banc are DENIED.
- () Treating the Petitions for Rehearing En Banc as Petitions for Panel Rehearing, the Petitions for Panel Rehearing are DENIED. The court having been polled at the request of one of the members of the court and a majority of the judges who are in regular active service and not disqualified not having voted in favor (FED. R. APP. P. and 5th CIR. R. 35), the Petitions for Rehearing En Banc are DENIED.

ENTERED FOR THE COURT:

/s/ Patrick E. Higginbotham

United States Circuit Judge

APPENDIX C

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI

[Filed November 20, 2018]

No. 3:18-CV-171-CWR-FKB

JACKSON WOMEN'S HEALTH ORGANIZATION,
On behalf of itself and its patients, et al.,

Plaintiffs,

v.

MARY CURRIER, In her official capacity as
State Health Officer of the Mississippi
Department of Health, et al.,

Defendants.

ORDER GRANTING PERMANENT INJUNCTION
Before CARLTON W. REEVES, *District Judge.*

In March 2018, Mississippi enacted House Bill 1510, one of the most restrictive abortion laws in the country. Plaintiffs filed suit to challenge this law.

There is a lone legal question presented: does H.B. 1510 infringe on the Fourteenth Amendment due process rights of women? It does, unequivocally.

I. Procedural Background

On March 19, 2018, Mississippi enacted H.B. 1510, which is titled "An Act to . . . Prohibit Abortions After 15 Weeks' Gestation." The Act can be summarized by § 1.4(b):

Except in a medical emergency or in the case of a severe fetal abnormality, a person shall not intentionally or knowingly perform, induce,

or attempt to perform or induce an abortion of an unborn human being if the probable gestational age of the unborn human being has been determined to be greater than fifteen (15) weeks.

Gestational age is measured by “the time that has elapsed since the first day of the woman’s last menstrual period.”¹ The two exceptions are limited to narrow circumstances. A “medical emergency” exists only when necessary to save the woman’s life or because the woman is facing “a serious risk of substantial and irreversible impairment of a major bodily function.”² “Severe fetal abnormality” exists only when the fetus cannot survive outside the womb, no matter the fetus’ age.³ If doctors perform abortions outside of the parameters of the Act, they *shall* have their medical license suspended or revoked and may be subject to an additional civil penalty or fine.⁴

On the day the Act was signed into law, Jackson Women’s Health Organization (“JWHO”), the sole facility providing abortion services in Mississippi, and

¹ H.B. 1510 § 1.3(e). “Last menstrual period” is often abbreviated as “lmp.” The State’s definition is consistent with standard medical practice. *See Planned Parenthood of Sw. & Cent. Fla. v. Philip*, 194 F. Supp. 3d 1213, 1222 (N.D. Fla. 2016) (“Physicians measure gestational age from the onset of the last menstrual period, not from the date of conception.”). In regulating abortion, other states, however, attempt to measure gestational age based upon conception. *See Jane L. v. Bangerter*, 102 F.3d 1112, 1114 n.3 (10th Cir. 1996) (“20 weeks gestational age” as used in Utah’s ban “equates with 22 weeks gestational age as this computation is generally made.”).

² H.B. 1510 § 1.3(j).

³ *Id.* § 1.3(h).

⁴ *Id.* § 6 (emphasis added).

one of its board-certified doctors, Dr. Sacheen Carr-Ellis, filed suit challenging the 15-week ban and requesting a temporary restraining order (“TRO”). The plaintiffs named as defendants the officers of the state responsible for overseeing healthcare and healthcare licensing. An abortion was scheduled for the next day. The Court entered the TRO.

Plaintiffs later amended their complaint, dropping the equal protection challenge to the Act and adding five separate challenges to Mississippi’s other abortion laws. The Court bifurcated the claims into two parts; Part I deals with the 15-week ban, and Part II deals with the other challenges to Mississippi’s abortion regulations. In the interim, the Court extended the TRO a number of times with the final extension due to expire on November 26, 2018.⁵

Plaintiffs filed for summary judgment on Part I on August 24, 2018. That motion is now fully briefed. The familiar standard applies.⁶

II. Viability is the Controlling Constitutional Precedent

“Liberty finds no refuge in a jurisprudence of doubt.”⁷ *Roe v. Wade* is controlling law.⁸ As the Fifth

⁵ See Docket No. 87.

⁶ See Fed. R. Civ. P. 56(a) (“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact the movant is entitled to judgment as a matter of law.”).

⁷ *Planned Parenthood of Se. Pennsylvania v. Casey*, 505 U.S. 833, 844 (1992) (“Yet 19 years after our holding that the Constitution protects a woman’s right to terminate her pregnancy in its early stages that definition of liberty is still questioned.”).

⁸ 410 U.S. 113 (1973). Many view *Roe* as the starting point for abortion in America, but abortion in America did not begin in

Circuit said four years ago, it is “important to keep in mind that for more than forty years, it has been settled constitutional law that the Fourteenth Amendment protects a woman’s basic right to choose an abortion.”⁹

The Supreme Court *in Planned Parenthood of Southeastern Pennsylvania v. Casey* affirmed the central holding of *Roe*: “Before viability, the State’s interests are not strong enough to support a prohibition of abortion or the imposition of a substantial obstacle to the woman’s effective right to elect the procedure.”¹⁰ Courts across the country, including this one, are required to follow *Casey*’s holding that “viability marks the earliest point at which the State’s

1973. In Mississippi, when the 1890 constitution was adopted, abortion was legal until “quickening” which was between four and five months after the last menstrual period. *See Pro-Choice Mississippi v. Fordice*, 716 So. 2d 645, 650 (Miss. 1998). During months of research while drafting *Roe*, Justice Blackmun was surprised to learn that abortion was an accepted practice for thousands of years until it was criminalized in the 19th Century. *See* Scott Armstrong & Bob Woodward, *The Brethren* 183 (1979); *see also* Sybil Shainwald, *Reproductive Injustice in the New Millennium*, 20 Wm. & Mary J. Wom. & L. 123, 127 (2013) (explaining that “[i]n England between 1327 and 1803, and in the United States between 1607 and 1830, the common law afforded women the right to have an abortion.”). Justice Ginsburg’s own critique of *Roe*, prior to her appointment to the Supreme Court, was that the decision undercut progress states were making expanding abortion access. *See* Ruth Bader Ginsburg, *Some Thoughts on Autonomy and Equality in Relation to Roe v. Wade*, 63 N.C. L. Rev. 375, 381-82 (1985).

⁹ *Jackson Women’s Health Org. v. Currier*, 760 F.3d 448, 453 (5th Cir. 2014) (citations omitted).

¹⁰ *Casey*, 505 U.S. at 846.

interest in fetal life is constitutionally adequate to justify a legislative ban on nontherapeutic abortions.”¹¹

III. Undisputed Facts

As this Court previously noted in applying *Casey* and limiting the scope of discovery in this case, “[g]iven the Supreme Court’s viability framework, the ban’s lawfulness hinges on a single question: whether the 15-week mark is before or after viability.”¹²

Viability is not the same for every pregnancy. It is a determination that must be made by a trained medical professional on a case-by-case basis.¹³ The established medical consensus, however, is that viability typically begins between 23 to 24 weeks imp.¹⁴

The evidence in this case is consistent with the medical consensus. Plaintiffs direct the Court to the affidavits of two board-certified obstetrician/gynecologists who both agree that a fetus is not viable at 15 weeks

¹¹ *Id.* at 860; see *Gonzales v. Carhart*, 550 U.S. 124, 146 (2007) (“Before viability, a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy.”) (quoting *Casey*); *Sojourner T. v. Edwards*, 974 F.2d 27, 30 (5th Cir. 1992) (“a State’s interests are not strong enough to support a prohibition of abortion.”); *Edwards v. Beck*, 786 F.3d 1113, 1117 (8th Cir. 2015) (upholding unconstitutionality of 12-week abortion ban); *Isaacson v. Horne*, 716 F.3d 1213, 1222-23 (9th Cir. 2013) (finding 20-week abortion ban unconstitutional on the premise that viability is the “critical point” of inquiry).

¹² Docket No. 41 at 2.

¹³ *Colautti v. Franklin*, 439 U.S. 379, 388 (1979) (“Viability is reached when, in the judgment of the attending physician on the particular facts of the case before him [or her], there is a reasonable likelihood of the fetus’ sustained survival outside the womb, with or without artificial support.”).

¹⁴ *Isaacson*, 716 F.3d at 1224-25.

lmp.¹⁵ In fact, the Mississippi Department of Health’s own position has long been that a fetus at 15 weeks lmp has “no chance of survival outside of the womb.”¹⁶ The State concedes established medical fact and acknowledges it has been “unable to identify any medical research or data that shows a fetus has reached the ‘point of viability’ at 15 weeks LMP.”¹⁷

The consequences of the Act are also undisputed. JWHO provides abortion services until 16 weeks lmp. Dr. Carr-Ellis states in her affidavit that the Act presents her with “an impossible choice: to face potential civil penalties and loss of [her] Mississippi medical license for continuing to safely provide abortion care or to stop providing [her] patients the care they seek and deserve.”¹⁸ Generally, once per week the clinic provides an abortion to at least one woman after 14 weeks 6 days lmp.¹⁹ If the Act is allowed to take effect, Dr. Carr-Ellis contends, those patients seeking abortions after 14 weeks 6 days lmp “will either be forced to carry their pregnancy to term against their will or have to leave the state to obtain care.”²⁰

The record is clear: States may not ban abortions prior to viability; 15 weeks lmp is prior to viability; and plaintiffs provide abortion services to Mississippi residents after 15 weeks lmp. As the facts establish, the Act is unlawful.

¹⁵ See Docket No. 82 at 4.

¹⁶ *Id.*

¹⁷ Docket No. 85 at 1-2.

¹⁸ Docket No. 81-1 ¶ 16.

¹⁹ *Id.* ¶ 8.

²⁰ *Id.* ¶ 10.

IV. The State's Arguments Disregard Controlling Constitutional Precedent

So, why are we here? Because the State of Mississippi contends that every court who ruled on a case such as this “misinterpreted or misapplied prior Supreme Court abortion precedent.”²¹

The State argues that because the Act is only a “regulation,” which includes exceptions and was passed in furtherance of the State’s legitimate interest in protecting the health of women,²² the Act does not

²¹ Docket No. 85 at 7.

²² The judiciary “retains an independent constitutional duty to review factual findings [of legislatures] where constitutional rights are at stake.” *Gonzales*, 550 U.S. at 165 (citations omitted). In *Shelby County v. Holder*, for example, the Supreme Court found that § 4 of the Voting Rights Act was unconstitutional, despite a 15,000-page legislative record. 570 U.S. 529 (2013). The Court’s view of American history led it to conclude that “our country has changed” and Congress’s legislative findings failed to “reflect[] current needs.” *Id.* at 553, 557.

In that spirit, this Court concludes that the Mississippi Legislature’s professed interest in “women’s health” is pure gaslighting. In its legislative findings justifying the need for this legislation, the Legislature cites *Casey* yet defies *Casey*’s core holding. The State “ranks as the state with the most [medical] challenges for women, infants, and children” but is silent on expanding Medicaid. Ryan Sit, *Mississippi has the Highest Infant Mortality Rate and is Expected to Pass the Nation’s Strictest Abortion Bill*, Newsweek, March 19, 2018. Its leaders are proud to challenge *Roe* but choose not to lift a finger to address the tragedies lurking on the other side of the delivery room: our alarming infant and maternal mortality rates. See, e.g., Lynn Evans, *Maternal Deaths Still on the Increase*, The Clarion Ledger, March 31, 2018; Danielle Paquette, *Why Pregnant Women in Mississippi Keep Dying*, Wash. Post, April 24, 2015.

place an undue burden on a woman's right to choose.²³

The State is wrong on the law. The *Casey* court confirmed that the “State has legitimate interests from the outset of the pregnancy in protecting the health of the woman and the life of the fetus that may become a child” and it may *regulate* abortions in pursuit of those legitimate interests.²⁴ Those *regulations* are constitutional only if they do not place an undue burden on a woman's right to choose an abortion.²⁵ But “this ‘undue burden’/substantial obstacle’ mode of analysis has no place where, as here, the state is *forbidding* certain women from choosing pre-viability abortions rather than specifying the conditions under which such abortions are to be allowed.”²⁶ There is no

No, legislation like H.B. 1510 is closer to the old Mississippi—the Mississippi bent on controlling women and minorities. The Mississippi that, just a few decades ago, barred women from serving on juries “so they may continue their service as mothers, wives, and homemakers.” *State v. Hall*, 187 So. 2d 861, 863 (Miss. 1966). The Mississippi that, in Fannie Lou Hamer's reporting, sterilized six out of ten black women in Sunflower County at the local hospital—against their will. See Rickie Solinger, *Wake Up Little Susie* 57 (1992). And the Mississippi that, in the early 1980s, was the last State to ratify the 19th Amendment—the authority guaranteeing women the right to vote. See Marjorie Julian Spruill & Jesse Spruill Wheeler, *Mississippi Women and the Woman Suffrage Movement*, Mississippi History Now.

²³ See Docket No. 85 at 3-5.

²⁴ *Casey*, 505 U.S. at 846.

²⁵ See *Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2309 (2016) (“a statute which, while furthering [a] valid state interest, has the effect of placing a substantial obstacle in the path of a woman's choice cannot be considered a permissible means of serving its legitimate ends.”).

²⁶ *Isaacson*, 716 F.3d at 1225 (emphasis in original).

legitimate state interest strong enough, prior to viability, to justify a ban on abortions.²⁷

The State's characterization is also wrong. The Act's full title is "An Act to be Known As the Gestational Age Act; To *Prohibit* Abortions After 15 Weeks' Gestation."²⁸ "Ban" and "prohibit" are synonyms.²⁹ This Act is a ban. It is not a regulation.

Given what *Casey* says about pre-viability bans, bans do not fare well in court. In *Edwards v. Beck*, the State of Arkansas, attempting to defend a ban on abortions after 12 weeks, made the exact same argument as the State of Mississippi does here.³⁰ The Eighth Circuit rejected the argument and held that "[w]hether or not exceptions are made for particular circumstances, a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy before viability."³¹ As the Fifth Circuit explicitly stated in ruling that Louisiana's ban on abortions, which also included certain exceptions, was unconstitutional: "The [Supreme] Court held that before viability, a State's interests are not strong enough to support a prohibition of abortion. Thus, the [state] statute is clearly unconstitutional under *Casey*."³²

²⁷ *Casey*, 505 U.S. at 846.

²⁸ H.B. 1510 (emphasis added).

²⁹ To the extent there is any doubt, "[t]he title of an act should assist to clarify what was in the mind of the legislature." Norman J. Singer & J.D. Shambie Singer, *Statutes and Statutory Construction* § 18:7 at 75-76 (7th Ed. 2009).

³⁰ *Edwards*, 786 F.3d at 1117.

³¹ *Id.* (quotations and citations omitted).

³² *Sojourner T.*, 974 F.2d at 30 (citations omitted); see also *Gonzales*, 550 U.S. at 146 ("Before viability, a State may not pro-

Pivoting, Mississippi then asks the Court to totally disregard the *Casey* framework. The State argues this Court should unilaterally adopt a new line of reasoning and look to “fetal pain” instead of viability as a justifiable basis for the ban.³³ The State suggests that *Gonzales v. Carhart* allows for the adoption of this new framework.

Wrong again. To be absolutely clear, *Gonzales* does not replace *Casey* with a new standard.³⁴ *Gonzales* upheld the ban of a particular type of abortion procedure when other avenues for pre-viability abortions still existed.³⁵ In contrast, after 15 weeks women in Mississippi would be left with no other options.³⁶

hibit any woman from making the ultimate decision to terminate her pregnancy.”).

³³ See Docket No. 85 at 6-15. There is disagreement over the science of fetal pain. See, e.g., Shainwald, *supra* n.8, at 156-57.

³⁴ *Gonzales*, 550 U.S. at 146; *Isaacson*, 716 F.3d at 1223-24 (“*Gonzales*, preserved the viability line as the limit on prohibitions of abortion, applying *Casey* rather than overturning it. *Gonzales* left in place the earlier rulings that, [b]efore viability, a State may not prohibit any woman from making the ultimate decision to terminate her pregnancy.”) (quoting *Gonzales*).

³⁵ *Gonzales*, 550 U.S. at 140.

³⁶ The result would disproportionately impact poor women, and Mississippi has a greater population of poor women than any other state in the country. See Rebecca Wind, *Abortion is a Common Experience for U.S. Women*, Guttmacher Institute (Oct. 19, 2017); *Status of Women in the States: 2018*, Institute for Women’s Policy Research (March 2018). Poor women are less likely to be able to leave the state to obtain the care they need. See Audrey Carlsen, et al., *What It Takes to Get an Abortion in the Most Restrictive U.S. State*, N.Y. Times, July 20, 2018 (“in 2014, the income of about half of women having abortions was less than the federal poverty level, which was \$11,670” and in Mississippi abortions are not covered by Medicaid).

The State, of course, has the right to pass legislation that represents the interests of its citizens. But the State has already accounted for those desires by passing a “trigger law” that will ban abortions in the event *Roe* is overturned.³⁷ The Court’s frustration, in part, is that other states have already unsuccessfully litigated the same sort of ban that is before this Court and the State is aware that this type of litigation costs the taxpayers a tremendous amount of money.³⁸

No, the real reason we are here is simple. The State chose to pass a law it knew was unconstitutional to endorse a decades-long campaign, fueled by national interest groups, to ask the Supreme Court to overturn *Roe v. Wade*.³⁹

This Court follows the commands of the Supreme Court and the dictates of the United States Constitution, rather than the disingenuous calculations of the Mississippi Legislature.⁴⁰ Summary judgment, therefore, is granted in favor of plaintiffs.

³⁷ See Miss. Code Ann. § 41-41-45.

³⁸ See *Jackson Women’s Health Organization v. Currier*, No. 3:12-CV-436-DPJFKB, Docket No. 217 (S.D. Miss. May 29, 2018) (as prevailing party plaintiffs have moved for an award of attorney’s fees and costs in excess of \$1.2 million in case where State’s abortion regulation was ruled facially unconstitutional).

³⁹ See Arielle Dreher, *Reversing ‘Roe’; Outside Group Uses Mississippi as ‘Bait’ to End Abortion*, Jackson Free Press, March 14, 2018. Evidence of the campaign against *Roe* is evident in legislation from across the country. In 2011 and 2012, states passed over 130 laws restricting abortions. Yet in 2012 “no new laws were passed . . . to improve access to abortion, family planning services” or other interventions that would reduce unintended pregnancies. Shainwald, *supra* n.8, at 124.

⁴⁰ The Mississippi Legislature has a history of disregarding the constitutional rights of its citizens. See, e.g., *Alexander v. Holmes*

V. The Ban Must Be Enjoined

Plaintiffs, who have already been granted a TRO, request that this Court enter “permanent injunctive relief restraining Defendants, their employees, agents, and successors from enforcing H.B. 1510 as to pre-viability abortions.”⁴¹ The State argues that plaintiffs do not have standing to seek such relief because the JWHO does not provide abortion services after 16 weeks lmp. The State, therefore, says that if the Court were to grant the plaintiffs any relief, it must be limited to a permanent injunction that would end at 16 weeks 0 days lmp. In addition to the time frame of

Cty. Bd. of Ed., 396 U.S. 19, 20 (1969) (15 years after *Brown v. Board*, Mississippi continued to maintain segregated schools, prompting the Supreme Court to tell the State that it was “the obligation of every school district . . . to terminate dual school systems at once and to operate now and hereafter only unitary schools.”); *Campaign for Southern Equality v. Bryant*, 791 F.3d 625, 627 (5th Cir. 2015) (striking down Mississippi’s ban on same-sex marriage, explaining that “*Obergefell*, in both its Fourteenth and First Amendment iterations, is the law of the land and, consequently, the law of this circuit”); *ACLU v. Fordice*, 969 F. Supp. 403, 405 (S.D. Miss. 1994) (reciting how State legislature created and funded the Sovereignty Commission “to maintain racial segregation in the South despite orders to the contrary by the United States Supreme Court. As the secret intelligence arm of the State, the Commission engaged in a wide variety of unlawful activity”); *Jackson Women’s Health Organization v. Amy*, 330 F. Supp. 2d 820 (S.D. Miss. 2004) (enjoining state statute that eliminated organization’s ability to perform abortions early in second trimester); *Campaign for Southern Equality v. Miss. Dept of Hum. Serv.*, 175 F. Supp. 3d 691, 697 (S. D. Miss. 2016) (striking down Mississippi statute prohibiting adoption by married gay couples); *Stewart v. Waller*, 404 F. Supp. 206 (N.D. Miss. 1975) (striking down at-large alderman election statute as purposeful device conceived to violate the Fourteenth and Fifteenth Amendments in furtherance of racial discrimination).

⁴¹ Docket No. 23 at 57.

the injunction, the State also suggests that plaintiffs have not established a facial challenge to the Act, so any remedy must be limited by application only to JWHO. Plaintiffs, correctly, respond that the State has conflated the principals of standing and remedies, and the remedy they request is appropriately tailored to the injury they have established.

“The scope of injunctive relief is dictated by the extent of the violation established, and an injunction must be narrowly tailored to remedy the specific action necessitating the injunction.”⁴² The breadth of the challenge, whether facial or as-applied, guides the appropriate scope of the remedy.⁴³ In a facial challenge, it is up to the Court to determine “whether the plaintiffs are correct that the Statute cannot be construed and applied without infringing upon constitutionally protected rights.”⁴⁴

There is some confusion, as acknowledged *in Gonzales*, regarding the burden that a plaintiff bears in proving a facial challenge in the abortion context.⁴⁵ The Supreme Court has articulated two standards: challengers have to show that either there is no set of circumstances under which the law could be constitutional or that “in a large fraction of cases” the law

⁴² *Fiber Sys. Int'l., Inc. v. Roehrs*, 470 F.3d 1150, 1159 (5th Cir. 2006); *see also* Fed. R. Civ. P. 65(d).

⁴³ The Fifth Circuit has held that an injunction against the application of a law to parties not involved in the suit “was an overly broad remedy in an as-applied challenge.” *Currier*, 760 F.3d at 458.

⁴⁴ *Sojourner T.*, 974 F.2d at 30 (citations omitted).

⁴⁵ *See Gonzales*, 550 U.S. at 167-68.

would be unconstitutional.⁴⁶ Here, this distinction matters little because Mississippi's Act is not constitutional under any set of circumstances.

Plaintiffs have met the burden of a facial challenge because, as the State admits, a fetus is not viable at 15 weeks Imp. Therefore, the Act is banning abortions prior to viability. The Act could not be construed or applied without violating precedent.

If plaintiffs' challenge had been an as-applied one, moreover, the immediate practical result of the remedy would be the same since the JWFO is the sole abortion provider in Mississippi.⁴⁷

Furthermore, the plaintiffs cite two instructive cases where courts did not limit the remedy based upon the services provided by abortion clinics who were plaintiffs.⁴⁸

⁴⁶ Compare *Ohio v. Akron Center for Reproductive Health*, 497 U.S. 502, 514 (1990) with *Casey*, 505 U.S. at 895.

⁴⁷ See generally Sarah Fowler, *I Had an Abortion*, The Clarion Ledger, Aug. 19, 2018 (noting the drastic reduction in the number of abortion clinics within Mississippi).

⁴⁸ See *MKB Mgmt. Corp.*, 16 F. Supp. 3d at 1061-62 (permanently enjoining state's ban on abortions after the detection of a fetal heartbeat, remedy was not limited by self-imposed limitations of clinic), *aff'd sub nom. MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768 (8th Cir. 2015); *Edwards v. Beck*, 8 F. Supp. 3d 1091, 1095 (E.D. Ark. 2014) (permanently enjoining ban on abortions after 12 weeks, without limiting remedy to time period between viability and when clinic stopped offering abortion services), *aff'd*, 786 F.3d 1113 (8th Cir. 2015); see also *Jane L.*, 102 F.3d at 1117-18 (clinic's referral of women out-of-state after gestational age when clinic elected to stop providing abortion services was evidence that state ban created an undue burden on women).

VI. Conclusion

In *Whole Woman’s Health v. Hellerstedt*, the Supreme Court held that a set of Texas abortion regulations placed an undue burden on a woman’s right to choose. One of the dozens of amicus briefs filed in opposition to the restrictions was by a group of over 110 women, all members of the legal community. The women noted that the right to choose represents more than just the ability to make a medical decision; it is about “dignity and autonomy which are central to the liberty protected by the Fourteenth Amendment.”⁴⁹ Mississippi’s law violates Supreme Court precedent, and in doing so it disregards the Fourteenth Amendment guarantee of autonomy for women desiring to control their own reproductive health.

At various times throughout this Order, the Court has asked, “why are we here?” The State concedes that plaintiffs’ articulation of the relevant facts is correct, and it cannot provide any controlling law that requires this Court to consider other facts. The only other explanation in its brief is that the State is making a deliberate effort to overturn *Roe* and established constitutional precedent.⁵⁰ With the recent changes in the membership of the Supreme Court, it may be that the State believes divine providence covered the Capitol when it passed this legislation. Time will tell. If overturning *Roe* is the State’s desired result, the State

⁴⁹ Amici Curiae Brief in Support of Petitioners, at 3-4, *Whole Woman’s Health v. Hellerstedt*, 136 S. Ct. 2292 (2016) (No. 15-274) (citing *Casey*).

⁵⁰ See Docket No. 85 at 9 n.5 (The State suggests the Supreme Court is waiting for a circuit split as the opportunity to reevaluate the viability standard); see also Dreher, *supra* n.39.

will have to seek that relief from a higher court.⁵¹ For now, the United States Supreme Court has spoken.

The fact that men, myself included, are determining how women may choose to manage their reproductive health is a sad irony not lost on the Court.⁵² As Sarah Weddington argued to the nine men on the Supreme Court in 1971 when representing “Jane Roe,” “a pregnancy to a woman is perhaps one of the most determinative aspects of her life.”⁵³ As a man, who cannot get pregnant or seek an abortion, I can only imagine the anxiety and turmoil a woman might experience when she decides whether to terminate her pregnancy through an abortion. Respecting her autonomy demands that this statute be enjoined.

H.B. 1510 is permanently enjoined because it is a facially unconstitutional ban on abortions prior to viability. The defendants; their officers, agents, servants, employees, and attorneys; and all other persons who are in active concert or participation with them; shall not enforce H.B. 1510 at any point, ever.

SO ORDERED, this the 20th day of November, 2018.

s/ Carlton W. Reeves
United States District Judge

⁵¹ See *Bryant*, 791 F.3d at 627 n.1 (explaining that the Fifth Circuit may not be bound by dicta within its own decisions, but “dicta of the Supreme Court are, of course, another matter.”).

⁵² See also *Sec. & Exch. Comm’n v. Adams*, No. 3:18-CV-252-CWR-FKB, 2018 WL 2465763, at *1-2 (S.D. Miss. June 1, 2018) (women report that “federal courts are ‘places of discrimination’ . . . where they feel ‘invisible’ and face ‘pain, isolation, and injury’ – especially from men cloaked in the robes of justice.”).

⁵³ Josh Gottheimer, *Ripples of Hope: Great American Civil Rights Speeches* 353 (2003) (excerpt from *Roe v. Wade* oral argument).

APPENDIX D

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI

[Filed August 15, 2018]

No. 3:18-CV-171-CWR-FKB

JACKSON WOMEN’S HEALTH ORGANIZATION,
on behalf of itself and its patients, et al.

Plaintiffs,

v.

MARY CURRIER, in her official capacity as
State Health Officer, Mississippi
Department of Health, et al.

Defendants.

ORDER

Before CARLTON W. REEVES, *District Judge*.

The plaintiffs have moved to exclude the report and proposed testimony of defense witness Maureen L. Condic, Ph.D. The matter is fully briefed and ready for adjudication.

The plaintiffs first seek confirmation that Dr. Condic’s opinions on fetal pain are irrelevant to the scope of the preliminary injunction hearing and are therefore inadmissible. The defendants’ response brief freely concedes the point. Accordingly, the motion is granted in part.

The plaintiffs then seek to prevent the defendants from making an offer of proof—or “proffering”—Dr. Condic’s report. *See United States v. Ballis*, 28 F.3d

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1399, 1406-07 (5th Cir. 1994). But the plaintiffs' own authorities show that the defendants may proffer evidence they think relevant to the case. *See United States v. Kay*, 513 F.3d 432, 455-56 (5th Cir. 2007). This part of the motion is denied.

The parties are directed to meet and confer before filing any other discovery motion, motion to strike, or motion *in limine*.

SO ORDERED, this the 15th day of August, 2018.

s/ Carlton W. Reeves
United States District Judge

APPENDIX E

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF MISSISSIPPI

[Filed May 15, 2018]

No. 3:18-CV-00171-CWR-FKB

JACKSON WOMEN'S HEALTH ORGANIZATION,
On Behalf of Itself and its Patients, et al.,

Plaintiffs,

v.

MARY CURRIER, State Health Officer,
Mississippi Department of Health, et al.,

Defendants.

ORDER ON DISCOVERY

Before CARLTON W. REEVES, *District Judge.*

This lawsuit challenges many of Mississippi's abortion laws. Last month, the Court split the suit into two phases.¹ The first deals with the challenge to H.B. 1510, Mississippi's 15-week abortion ban, while the second will deal with all other challenges.

Plaintiffs have moved to limit discovery (the process of uncovering evidence) in the lawsuit's first phase. Plaintiffs say that the litigants should only seek evidence about whether viability occurs before or after 15 weeks.² Viability, according to the Supreme Court,

¹ *Order Separating Claims & Extending TRO*, Docket No. 25.

² *Motion to Adopt Plaintiffs' Proposed Schedule and Limit Discovery*, Docket No. 16; see also *Reply in Support of Motion to*

is the time when “there is a reasonable likelihood of the fetus’ sustained survival outside the womb, with or without artificial support.”³

In the Fifth Circuit, “the scope of discovery . . . is limited only by relevance and burdensomeness[.]”⁴ The Federal Rules of Evidence say that evidence is “relevant” if it alters the likelihood a fact is true, and that fact is “of consequence in determining the action.”⁵ The question, then, is what evidence is of consequence in deciding whether H.B. 1510 is lawful.

The answer lies within the Constitution, which gives every woman a constitutional right to “personal privacy” over her body.⁶ The Supreme Court says that right protects each woman’s choice “to have an abortion before viability.”⁷ “Before viability,” a government cannot “support a prohibition of abortion or the imposition of a substantial obstacle to the woman’s effective right to elect the procedure.”⁸ “[A]fter fetal viability,” however, the government has the “power to restrict abortions.”⁹ As the Fifth Circuit has said, the “basic right to choose

Adopt Plaintiffs’ Proposed Schedule and Limit Discovery, Docket No. 38.

³ *Colautti v. Franklin*, 439 U.S. 379, 388 (1979).

⁴ *Trevino v. Celanese Corp.*, 701 F.2d 397, 406 (5th Cir. 1983); see also *Duty to Disclose; General Provisions Governing Discovery*, Fed. R. Civ. P. 26.

⁵ *Test for Relevant Evidence*, Fed. R. Evid. 401.

⁶ *Roe v. Wade*, 410 U.S. 113, 152-53 (1973).

⁷ *Planned Parenthood of Se. Pennsylvania v. Casey*, 505 U.S. 833, 846 (1992).

⁸ *Id.*

⁹ *Id.*

an abortion” that this viability framework protects is “settled constitutional law.”¹⁰

H.B. 1510 is effectively a ban on all elective abortions after 15 weeks.¹¹ Given the Supreme Court’s viability framework, that ban’s lawfulness hinges on a single question: whether the 15-week mark is before or after viability. As the Eighth Circuit has said, when “viability presents the central issue in [a] case,” an “order limiting discovery to the issue of viability” is permissible.¹² Evidence about any other issue – like whether Mississippi has any interests that could outweigh a woman’s right to control her body and destiny – is irrelevant.

The Court will conclude with the obvious: Defendants’ request for expanded discovery is not about defending H.B. 1510 within the viability framework. The evidence Defendants seek, about things like pre-viability “fetal pain,”¹³ aims to persuade courts to reject the

¹⁰ *Jackson Women’s Health Org. v. Currier*, 760 F.3d 448, 453 (5th Cir. 2014).

¹¹ H.B. 1510 includes, as all abortion restrictions must, an exception for abortions stemming from medical emergencies. See *Stenberg v. Carhart*, 530 U.S. 914, 921 (2000). It also permits abortions to remove matter that is “incompatible with life outside the womb.”

¹² *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 n. 4 (8th Cir. 2015); accord *Isaacson v. Horne*, 716 F.3d 1213, 1229 (9th Cir. 2013).

¹³ See *Memorandum in Support of Response in Opposition to Plaintiffs’ Motion to Limit Discovery*, Docket No. 34; see also H.B. 1510(2)(b) (listing legislative findings regarding fetal development, medical practice, and maternal health in the pre-viability period).

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framework itself.¹⁴ If the Supreme Court feels open to such persuasion, it will indicate as much. To date, it has not done so, and has instead spent decades affirming the viability framework.¹⁵ This Court must remain within that framework, and limit discovery accordingly.

Plaintiffs' motion to limit discovery is GRANTED. Their proposed discovery schedule, as it applies to this lawsuit's first phase, is ADOPTED.

SO ORDERED, this the 15th day of May, 2018.

s/ Carlton W. Reeves
United States District Judge

¹⁴ See Jessie Hellman, *Anti-Abortion Lawmakers Lay Groundwork for Roe Challenge*, The Hill, Mar. 28, 2018; Marie Solis, *Republicans Test Roe v. Wade in Mississippi with Country's Strictest Abortion Ban*, Newsweek, Mar. 9, 2018; *Mississippi on Brink of Approving Measure to Ban Most Abortions After 15 Weeks*, Associated Press, Mar. 8, 2018.

¹⁵ See *Currier*, 760 F.3d at 453 (collecting cases).

APPENDIX F

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
NORTHERN DIVISION

[Filed March 20, 2018]

Cause No. 3:18-CV-171-CWR-FKB

JACKSON WOMEN’S HEALTH ORGANIZATION &
SACHEEN CARR-ELLIS, on behalf of themselves
and their patients,

Plaintiffs,

v.

MARY CURRIER, in her official capacity as
State Health Officer of the Mississippi
Department of Health, *et al.*,

Defendants.

TEMPORARY RESTRAINING ORDER

The Supreme Court says every woman has a constitutional right to “personal privacy” regarding her body.¹ That right protects her choice “to have an abortion before viability.”² States cannot “prohibit any woman from making the ultimate decision” to do so.³

¹ *Roe v. Wade*, 410 U.S. 113, 152-53 (1973).

² *Planned Parenthood of Se. Pennsylvania v. Casey*, 505 U.S. 833, 846 (1992).

³ *Gonzales v. Carhart*, 550 U.S. 124, 146 (2007) (quotation marks and citation omitted).

Yesterday, upon Governor Phil Bryant's signature, H.B. 1510 became law in Mississippi.⁴ H.B. 1510 places viability at 15 weeks – about two months earlier than where the medical consensus places it.⁵

Jackson Women's Health Organization consists of the only doctors who perform abortions in Mississippi. Those doctors – in reliance on the medical consensus about viability – perform abortions after the 15-week mark.⁶ Yesterday, the Organization and its medical director filed this lawsuit asking this Court to strike down H.B. 1510 as unconstitutional; hours later, they filed the present motion seeking a temporary restraining order.

This Court can grant that “extraordinary remedy” only if the plaintiffs have clearly demonstrated:

- (1) a substantial likelihood of success on the merits; (2) a substantial threat that [they] will suffer irreparable injury if the temporary restraining order is denied; (3) that the threatened injury outweighs any damage that the temporary restraining order might cause the [State]; and (4) that the temporary restraining order will not disserve the public interest.⁷

After considering the arguments and evidence at an emergency hearing this morning, this Court is

⁴ Miss. Laws 2018, HB 1510 (eff. Mar. 19, 2018).

⁵ *Id.*; see *MKB Mgmt. Corp. v. Stenehjem*, 795 F.3d 768, 773 (8th Cir. 2015) (reviewing undisputed evidence that viability was at 24 weeks); *Edwards v. Beck*, 786 F.3d 1113, 1116 (8th Cir. 2015) (same).

⁶ Complaint at 5.

⁷ *Whole Woman's Health v. Paxton*, 264 F. Supp. 3d 813, 818 (W.D. Tex. 2017) (citations omitted).

satisfied that this high standard has been met. The plaintiffs are substantially likely to succeed on their claim that H.B. 1510 is unconstitutional.⁸ The law threatens immediate, irreparable harm to Mississippians' abilities to control their "destiny and . . . body."⁹ This is especially true for one woman scheduled to have a 15-week abortion this afternoon. A brief delay in enforcing a law of dubious constitutionality does not outweigh that harm, and in fact serves the public's interest in preserving the freedom guaranteed by the United States Constitution.

The plaintiffs' request for a temporary restraining order is GRANTED. The defendants; their officers, agents, servants, employees, and attorneys; and all other persons who are in active concert or participation with them; shall not enforce H.B. 1510 for 10 days.¹⁰ The Court will take expedited briefing on whether it should issue a preliminary injunction and whether that relief should be consolidated with a trial on the merits.¹¹

SO ORDERED, this the 20th day of March, 2018.

s/ Carlton W. Reeves

United States District Judge

⁸ See *Gonzales*, 550 U.S. at 146; *Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2320 (2016) ("we now use 'viability' as the relevant point at which a State may begin limiting women's access to abortion for reasons unrelated to maternal health").

⁹ *Casey*, 505 U.S. at 869.

¹⁰ Fed. R. Civ. P. 65(d)(2).

¹¹ *Id.* at 65(a)(2).

APPENDIX G

West's Annotated Mississippi Code
Title 41. Public Health (Refs & Annos)
Chapter 41. Surgical or Medical Procedures; Consents
Mississippi Unborn Child Protection from
Dismemberment Abortion Act

Effective: March 19, 2018

Currentness

Miss. Code Ann. § 41-41-191. Gestational Age Act

(1) This section shall be known and cited as the “Gestational Age Act.”

(2) **Legislative findings and purpose.** The Legislature makes the following findings of fact and incorporates them herein by reference:

(a) The United States is one (1) of only seven (7) nations in the world that permits nontherapeutic or elective abortion-on-demand after the twentieth week of gestation. In fact, fully seventy-five percent (75%) of all nations do not permit abortion after twelve (12) weeks’ gestation, except (in most instances) to save the life and to preserve the physical health of the mother.

(b)(i) Medical and other authorities now know more about human prenatal development than ever before including that:

1. Between five (5) and six (6) weeks’ gestation, an unborn human being’s heart begins beating.
2. An unborn human being begins to move about in the womb at approximately eight (8) weeks’ gestation.

3. At nine (9) weeks' gestation, all basic physiological functions are present. Teeth and eyes are present, as well as external genitalia.
4. An unborn human being's vital organs begin to function at ten (10) weeks' gestation. Hair, fingernails, and toenails also begin to form.
5. At eleven (11) weeks' gestation, an unborn human being's diaphragm is developing, and he or she may even hiccup. He or she is beginning to move about freely in the womb.
6. At twelve (12) weeks' gestation, an unborn human being can open and close his or her fingers, starts to make sucking motions, and senses stimulation from the world outside the womb. Importantly, he or she has taken on "the human form" in all relevant aspects. *Gonzales v. Carhart*, 550 U.S. 124, 160 (2007).
7. The Supreme Court has long recognized that the State of Mississippi has an "important and legitimate interest in protecting the potentiality of human life," *Roe v. Wade*, 410 U.S. 113, 162 (1973), and specifically that "the state has an interest in protecting the life of the unborn." *Planned Parenthood of Southeastern Pennsylvania v. Casey*, 505 U.S. 833, 873 (1992).
8. The majority of abortion procedures performed after fifteen (15) weeks' gestation are dilation and evacuation procedures which involve the use of surgical instruments to crush and tear the unborn child apart before removing the pieces of the dead child from the womb. The Legislature finds that the intentional commitment of such acts for nontherapeutic or elective reasons is a barbaric practice, dangerous for the

maternal patient, and demeaning to the medical profession.

9. Most obstetricians and gynecologists practicing in the State of Mississippi do not offer or perform nontherapeutic or elective abortions. Even fewer offer or perform the dilation and evacuation abortion procedure even though it is within their scope of practice.

(ii) Abortion carries significant physical and psychological risks to the maternal patient, and these physical and psychological risks increase with gestational age. Specifically, in abortions performed after eight (8) weeks' gestation, the relative physical and psychological risks escalate exponentially as gestational age increases. L. Bartlett et al., *Risk factors for legal induced abortion mortality in the United States*, OBSTETRICS AND GYNECOLOGY 103(4):729 (2004).

(iii) Importantly, as the second trimester progresses, in the vast majority of uncomplicated pregnancies, the maternal health risks of undergoing an abortion are greater than the risks of carrying a pregnancy to term.

(iv) Medical complications from dilation and evacuation abortions include, but are not limited to: pelvic infection; incomplete abortions (retained tissue); blood clots; heavy bleeding or hemorrhage; laceration, tear, or other injury to the cervix; puncture, laceration, tear, or other injury to the uterus; injury to the bowel or bladder; depression; anxiety; substance abuse; and other emotional or psychological problems. Further, in abortions performed after fifteen (15) weeks' gestation, there is

a higher risk of requiring a hysterectomy, other reparative surgery, or blood transfusion.

(v) The State of Mississippi also has “legitimate interests from the outset of pregnancy in protecting the health of women.” *Planned Parenthood of Southeastern Pennsylvania v. Casey*, 505 U.S. 833, 847 (1992), as the “medical, emotional, and psychological consequences of abortion are serious and can be lasting e” *H.L. v. Matheson*, 450 U.S. 398, 411 (1981).

(c) Based on the findings in paragraph (a) of this subsection, it is the intent of the Legislature, through this section and any regulations and policies promulgated hereunder, to restrict the practice of nontherapeutic or elective abortion to the period up to the fifteenth week of gestation.

(3) **Definitions.** As used in this section:

(a) “Abortion” means the use or prescription of an instrument, medicine, drug, or other substance or device with the intent to terminate a clinically diagnosable pregnancy for reasons other than to increase the probability of a live birth, to preserve the life or health of the unborn human being, to terminate an ectopic pregnancy, or to remove a dead unborn human being.

(b) “Attempt to perform or induce an abortion” means to do or omit anything that, under the circumstances as the person believes them to be, is an act or omission that constitutes a substantial step in a course of conduct planned to culminate in the performance or induction of an abortion in violation of this section.

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- (c) "Conception" means the fusion of human spermatozoon with a human ovum.
- (d) "Department" means the Mississippi State Department of Health.
- (e) "Gestation" means the time that has elapsed since the first day of the woman's last menstrual period.
- (f) "Gestational age" or "probable gestation age" means the age of an unborn human being as calculated from the first day of the last menstrual period of the pregnant woman.
- (g) "Human being" means an individual member of the species *Homo sapiens*, from and after the point of conception.
- (h) "Severe fetal abnormality" means a life-threatening physical condition that, in reasonable medical judgment, regardless of the provision of life-saving medical treatment, is incompatible with life outside the womb.
- (i) "Major bodily function" includes, but is not limited to, functions of the immune system, normal cell growth, and digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions.
- (j) "Medical emergency" means a condition in which, on the basis of the physician's good faith clinical judgment, an abortion is necessary to preserve the life of a pregnant woman whose life is endangered by a physical disorder, physical illness, or physical injury, including a life-endangering physical condition arising from the pregnancy itself, or when the continuation of the pregnancy will create a serious risk of substantial and irreversible impairment of a major bodily function.

(k) “Physician” or “referring physician” means a person licensed to practice medicine in the State of Mississippi.

(4) Abortion limited to fifteen (15) weeks’ gestation except in medical emergency and in cases of severe fetal abnormality. (a) Except in a medical emergency or in the case of a severe fetal abnormality, a person shall not perform, induce, or attempt to perform or induce an abortion unless the physician or the referring physician has first made a determination of the probable gestational age of the unborn human being and documented that gestational age in the maternal patient’s chart and, if required, in a report to be filed with the department as set forth in paragraph (c) of this subsection. The determination of probable gestational age shall be made according to standard medical practices and techniques used in the community.

(b) Except in a medical emergency or in the case of a severe fetal abnormality, a person shall not intentionally or knowingly perform, induce, or attempt to perform or induce an abortion of an unborn human being if the probable gestational age of the unborn human being has been determined to be greater than fifteen (15) weeks.

(c) In every case in which a physician performs or induces an abortion on an unborn human being whose gestational age is greater than fifteen (15) weeks, the physician shall within fifteen (15) days of the abortion cause to be filed with the department, on a form supplied by the department, a report containing the following information:

- (i) Date the abortion was performed;
- (ii) Specific method of abortion used;

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- (iii) The probable gestational age of the unborn human being and the method used to calculate gestational age;
- (iv) A statement declaring that the abortion was necessary to preserve the life or physical health of the maternal patient;
- (v) Specific medical indications supporting the abortion; and
- (vi) Probable health consequences of the abortion and specific abortion method used.

The physician shall sign the form as his or her attestation under oath that the information stated thereon is true and correct to the best of his or her knowledge.

(d) Reports required and submitted under this subsection (4) shall not contain the name of the maternal patient upon whom the abortion was performed or any other information or identifiers that would make it possible to identify, in any manner or under any circumstances, a woman who obtained or sought to obtain an abortion.

(5) **Reporting forms.** The department shall create the forms required by this section within thirty (30) days after March 19, 2018. No provision of this section requiring the reporting of information on forms published by the department shall be applicable until ten (10) days after the requisite forms have been made available or March 19, 2018, whichever is later.

(6) **Professional sanctions and civil penalties.** (a) A physician who intentionally or knowingly violates the prohibition in subsection (4) of this section commits an act of unprofessional conduct and his or her license to practice medicine in the State of Mississippi

shall be suspended or revoked pursuant to action by the Mississippi State Board of Medical Licensure.

(b) A physician who knowingly or intentionally delivers to the department any report required by subsection (4)(c) of this section and known by him or her to be false shall be subject to a civil penalty or fine up to Five Hundred Dollars (\$500.00) per violation imposed by the department.

(7) **Additional enforcement.** The Attorney General shall have authority to bring an action in law or equity to enforce the provisions of this section on behalf of the Director of the Mississippi State Department of Health or the Mississippi State Board of Medical Licensure. The Mississippi State Board of Medical Licensure shall also have authority to bring such action on its own behalf.

(8) **Construction.** Nothing in this section shall be construed as creating or recognizing a right to abortion or as altering generally accepted medical standards. It is not the intention of this section to make lawful an abortion that is otherwise unlawful. An abortion that complies with this section, but violates any other state law, is unlawful. An abortion that complies with another state law, but violates this section is unlawful.

(9) **Severability.** (a) It is the intent of the Legislature that every provision of this section shall operate with equal force and shall be severable one from the other and that, in the event that any provision of this section shall be held invalid or unenforceable by a court of competent jurisdiction, said provision shall be deemed severable and the remaining provisions of this section deemed fully enforceable.

(b) In the event that any provision of this section shall be held invalid or unenforceable by a court of

competent jurisdiction, Sections 41-41-131 through 41-41-145 shall remain in effect. If some or all of the provisions of this section are ever temporarily or permanently restrained or enjoined by judicial order, all other provisions of Mississippi law regulating or restricting abortion shall be enforced as though the restrained or enjoined provisions had not been adopted; however, whenever the temporary or permanent restraining order or injunction is stayed or dissolved, or otherwise ceases to have effect, the provisions of this section shall have full force and effect.

(c) Mindful of *Leavitt v. Jane L.*, 518 U.S. 137 (1996), regarding the context of determining the severability of a state section of law regulating abortion, the United States Supreme Court held that an explicit statement of legislative intent is controlling. Accordingly, it is the intent of the Legislature that every provision, section, subsection, paragraph, sentence, clause, phrase or word in this section and every application of the provisions in this section is severable from each other. If any application of any provision in this section to any person, group of persons, or circumstances is found by a competent court to be invalid, the remaining applications of that provision to all other persons and circumstances shall be severed and may not be affected. All constitutionally valid applications of this section shall be severed from any applications that a court finds to be invalid, leaving the valid applications in force, because it is the Legislature's intent and priority that the valid applications be allowed to stand alone. Even if a reviewing court finds a provision of this statute to impose an undue burden in a large or substantial fraction of relevant cases, the applications that do not represent an undue burden shall be severed from the remaining

provisions and shall remain in force, and shall be treated as if the Legislature had enacted a section limited to the persons, group of persons, or circumstances for which the section's application does not present an undue burden. The Legislature further declares that it would have passed this section and each provision, section, subsection, paragraph, sentence, clause, phrase or word, and all constitutional applications of this section, without regard to the fact that any provision, section, subsection, paragraph, sentence, clause, phrase or word, or applications of this section, were to be declared unconstitutional or to represent an undue burden.

(d) If this section is found by any competent court to be invalid or to impose an undue burden as applied to any person, group of persons, or circumstances, the prohibition shall apply to that person or group of persons or circumstances on the earliest date on which this section can be constitutionally applied.

(e) If any provisions of this section are found by a competent court to be unconstitutionally vague, then the applications of the provision that do not present constitutional vagueness problems shall be severed and remain in force.

(10) **Right of intervention.** The Legislature, through one or more sponsors of this act duly appointed by resolution of their respective chamber, may intervene as a matter of right in any case in which the constitutionality of this section is challenged. The Governor may also intervene as a matter of right in any case in which the constitutionality of this section is challenged.

APPENDIX H

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
NORTHERN DIVISION

[Filed August 3, 2018]

Civil Action No. 3:18-CV-171-CWR-FKB

JACKSON WOMEN'S HEALTH ORGANIZATION, *et al.*,
Plaintiffs,

v.

MARY CURRIER, M.D., M.P.H.,
in her official capacity as State Health Officer of the
Mississippi Department of Health, *et al.*,
Defendants.

DECLARATION OF MAUREEN L. CONDIC, Ph.D.

Pursuant to 28 U.S.C. § 1746, I, Maureen L. Condic, duly affirm under penalties for perjury that:

1. I am over 18 years of age, have personal knowledge of the matters set forth herein, and am competent to make this declaration. The opinions I render today are my own, and do not represent any group.

2. I am Associate Professor of Neurobiology and Anatomy at the University of Utah School of Medicine, with an adjunct appointment in the Department of Pediatrics. I received my undergraduate degree from the University of Chicago, and my doctorate from the University of California at Berkeley. Since my appointment at the University of Utah in 1997, my

primary research focus has been the development and regeneration of the nervous system, focused on the role of neural stem cells. In 1999, I was awarded the Basil O'Connor Young Investigator Award for my studies of peripheral nervous system development. In 2002, I was named a McKnight Neuroscience of Brain Disorders Investigator in recognition of my research in the field of adult spinal cord regeneration. My current research involves the molecular genetics of human pluripotent stem cells. In addition to my scientific research, I participate in both graduate and medical teaching. I have taught Human Embryology at the University of Utah School of Medicine for 20 years. I have published and presented seminars nationally and internationally on issues concerning human embryology, science policy and the ethics of biological research. My current Curriculum Vitae is attached as Exhibit "A". The publications I have authored are listed in my Curriculum Vitae. A list of the cases in which, during the previous four years, I have testified as an expert by deposition is attached as Exhibit "B". I have not testified as an expert at trial.

3. The scientific evidence regarding the development of human brain structures is entirely uncontested in the literature and unambiguously indicates that by 8-10 weeks post sperm-egg fusion (10-12 weeks as dated from the last menstrual period; LMP), a human fetus develops neural circuitry capable of detecting and responding to pain. During the period from 12-18 weeks of development (14-20 weeks post LMP), spinothalamic circuitry develops that is capable of supporting a conscious awareness of pain.

4. In humans and other animals, there is considerable variability in when specific structures are formed and become functionally active. Consequently, the

scientific evidence can only indicate the *range* of fetal ages during which fetal pain perception develops. Because development of brain circuitry is a continuous process, pain perception is likely to emerge gradually, becoming increasingly complex over time.

5. Abortion is currently prohibited from the first day of the 18th week of fetal development (20 weeks post LMP) by unchallenged Mississippi law (Women’s Health Protection and Preborn Pain Act, HB 1506 of 2014). The Mississippi law currently under dispute (Gestational Age Act, HB 1510 of 2018) covers the period beginning on the first day of the 13th week of fetal development (15 weeks post LMP), through the last day of the 17th week of fetal development (19 weeks, six days post LMP).

6. During the time period covered by the Gestational Age Act, the human fetus is producing neural structures that enable a conscious perception of pain, with development of these structures being substantially complete by the 18th week (20 weeks post LMP).

7. Thus, during the time period covered by the Gestational Age Act, the human fetus is likely to be capable of conscious pain perception in a manner that becomes increasingly complex over time.

8. To adequately address the question of when a human fetus is capable of pain perception, it is important to clarify the definition of pain. In the simplest sense, pain is an aversive response to a “noxious” (physically harmful or destructive) stimulus. The medical dictionary administered by the National Institutes of Health (NIH)¹ supports this view, defining pain as, “a basic

¹ See definition “b” at: <http://www.merriam-webster.com/medical/pain>.

bodily sensation that is induced by a noxious stimulus, is received by naked nerve endings, is characterized by physical discomfort (as pricking, throbbing, or aching), and typically leads to evasive action.”

9. Yet pain has more complex dimensions. The NIH dictionary also offers the following, more nuanced definition of pain: “a state of physical, emotional, or mental lack of well-being or physical, emotional, or mental uneasiness that ranges from mild discomfort or dull distress to acute often unbearable agony, may be generalized or localized, and is the consequence of being injured or hurt.” This definition also indicates pain is a response to a noxious stimulus or injury, but acknowledges that the response can have emotional or mental dimensions as well. And, like all mental experiences, it is difficult for any one of us to fully appreciate another person’s psychological experience of pain.

10. While the psychological and mental aspects of pain are important to us, they are also fundamentally *personal*, and therefore not something that can be fully understood by anyone else. Importantly, our inability to fully understand someone else’s experience of pain does not prevent us from making rational and prudent judgments about painful situations and how they obligate us to behave. Such judgments should be based on the best available scientific evidence and on direct observation, not on personal conviction or political considerations.

11. Importantly, *the scientific evidence regarding development of pain circuitry is entirely undisputed*, and has been reported in every modern review of fetal

pain, with essentially the same interpretation as is given below.²

12. When does the fetus develop neural circuitry capable of pain perception? The ability to perceive noxious stimuli and react to them develops over a very long period of time in humans, continuing well after birth.

13. The earliest “rudiment” of the human nervous system forms by 28 days of development (six weeks post LMP).³ At this stage, the primitive brain is already “patterned”; i.e. cells in different regions are specified to produce structures appropriate to their location and function in the nervous system as a

² See, for example: Is fetal pain a real evidence? Bellieni CV, Buonocore G. *J Matern Fetal Neonatal Med.* 2012 Aug;25(8):1203-8.; *Neuro Endocrinol Lett.* 2008 Dec;29(6):807-14.; Neurodevelopmental changes of fetal pain. Lowery CL, Hardman MP, Manning N, Hall RW, Anand KJ, Clancy B. *Semin Perinatol.* 2007 Oct;31(5):275-82.; Fetal pain perception and pain management. Van de Velde M, Jani J, De Buck F, Deprest J. *Semin Fetal Neonatal Med.* 2006 Aug;11(4):232-6. Epub 2006 Apr 18.; Fetal pain: a systematic multidisciplinary review of the evidence. Lee SJ, Ralston HJ, Drey EA, Partridge JC, Rosen MA. *JAMA.* 2005 Aug 24;294(8):947-54.; The development of nociceptive circuits. Fitzgerald M. *Nat Rev Neurosci.* 2005 Jul;6(7):507-20. Royal Collage of Gynaecologists and Obstetricians: Fetal Awareness: Review of Research and Recommendations for Practice. Available at: <https://www.rcog.org.uk/globalassets/documents/guidelines/reogfetalawarenesswpr0610.pdf> Accessed November 17, 2017

³ Throughout this discussion, the age of the fetus is given in weeks post sperm-egg fusion. For the equivalent “gestational age,” or week of pregnancy dated from last menstrual period, two weeks must be added to the ages provided. When quoting papers that refer to “gestational age”, the age of the fetus has been reported in square brackets, to remain consistent throughout the discussion.

whole.⁴ The brain grows enormously over the next several weeks, such that by 50 days (nine weeks post LMP), the rudiments of the major regions of the central nervous system have all been established.

14. In the region of the brain responsible for thinking, memory and other “higher” functions, the earliest neurons are generated during the fourth week⁵ (six weeks post LMP). In animals, synapses that allow for communication between cortical neurons are functional immediately and it is likely this is also true of humans.

15. The neural circuitry responsible for the most primitive response to pain, the spinal reflex, is in place by eight weeks of development (10 weeks post LMP). This is the earliest point at which the fetus is capable of detecting and reacting to painful stimuli in any capacity.⁶ And a fetus responds just as humans at later

⁴ Langman’s Medical Embryology, 11th Edition T.W. Sadler. (2009). Lippincott Williams and Wilkins. (ISBN-10: 0781790697) Chapters 5 and 6.

⁵ Tangential networks of precocious neurons and early axonal outgrowth in the embryonic human forebrain. Bystron I, Molnár Z, Otellin V, Blakemore C. *J Neurosci*. 2005;25:2781-92.; ApoER2 and VLDLR in the developing human telencephalon. Cheng L, Tian Z, Sun R, Wang Z, Shen J, Shan Z, Jin L, Lei L. *Eur J Paediatr Neurol*. 2011;15:361-7.; The first neurons of the human cerebral cortex. Bystron I, Rakic P, Molnar Z, Blakemore C. *Nat Neurosci*. 2006;9:880-6. Epub 2006 Jun 18.; Development of the human cerebral cortex: Boulder Committee revisited. Bystron I, Blakemore C, Rakic P. *Nat Rev Neurosci*. 2008;9:110-22.

⁶ Synaptogenesis in the cervical cord of the human embryo: sequence of synapse formation in a spinal reflex pathway. Okado N, Kakimi S, Kojima T. *J Comp Neurol*. 1979;184:491-518.; Onset of synapse formation in the human spinal cord. Okado N. *J Comp Neurol*. 1981;201:211-9.; The fine structure of the spinal cord in human embryos and early fetuses. Wozniak W, O’Rahilly R,

stages of development respond; by actively withdrawing from the painful stimulus.

16. The earliest connections between neurons in the subcortical-frontal pathways (regions of the brain involved in motor control and a wide range of psychological phenomena, including pain perception) are detected by 37 days and are well established by 8-10 weeks.⁷ Components of these circuits include the basal ganglia, limbic system, thalamus and hypothalamus.

17. Connections between the spinal cord and subcortical nuclei in the thalamus begin to form around 12 weeks⁸ and are completed by 18 weeks⁹ (14-20 weeks post LMP). Recent evidence demonstrates that infants also become viable around this time; i.e.

Olszewska B. *J Hirnforsch.* 1980;21:101-24.; Early synaptogenesis in the spinal cord of human embryos. Milokhin AA. *Acta Biol Hung.* 1983;34:231-45.; Development of pain mechanisms. Fitzgerald M. *Br Med Bull.* 1991;47:667-75.

⁷ Development of axonal pathways in the human fetal fronto-limbic brain: histochemical characterization and diffusion tensor imaging. Vasung L, Huang H, Jovanov-Milošević N, Pletikos M, Mori S, Kostović I. *J Anat.* 2010;217:400-17.; Insights from in vitro fetal magnetic resonance imaging of cerebral development. Kostovic I, Vasung L. *Semin Perinatol.* 2009;33:220-33.

⁸ Transient cholinesterase staining in the mediodorsal nucleus of the thalamus and its connections in the developing human and monkey brain. Kostovic I, Goldman-Rakic PS. *J Comp Neurol* 219:431-447, 1983.

⁹ Transient cholinesterase staining in the mediodorsal nucleus of the thalamus and its connections in the developing human and monkey brain. Kostovic I, Goldman-Rakic PS. *J Comp Neurol* 219:431-447, 1983.

Between 23%¹⁰ and 60%¹¹ of infants born at 20 weeks who receive active hospital treatment will survive, many without immediate¹² or long-term¹³ neurologic impairment. Currently, the two youngest infants to survive were born during the 19th week of fetal development, both with good neurologic outcome.¹⁴

¹⁰ Rysavy MA, Li L, Bell EF, Das A, Hintz SR, Stoll BJ, Vohr BR, Carlo WA, Shankaran S, Walsh MC, Tyson JE, Cotten CM, Smith PB, Murray JC, Colaizy TT, Brumbaugh JE, Higgins RD, Eunice Kennedy Shriver National Institute of Child H, Human Development Neonatal Research N. Between-hospital variation in treatment and outcomes in extremely preterm infants. *N Engl J Med* 372:1801-1811, 2015.

¹¹ Mehler K, Oberthuer A, Keller T, Becker I, Valter M, Roth B, Kribs A. Survival Among Infants Born at 22 or 23 Weeks' Gestation Following Active Prenatal and Postnatal Care. *JAMA Pediatr.* 170:671-677, 2016.

¹² Rysavy 2015; Mehler, 2016; Younge N, Goldstein RF, Bann CM, Hintz SR, Patel RM, Smith PB, Bell EF, Rysavy MA, Duncan AF, Vohr BR, Das A, Goldberg RN, Higgins RD, Cotten CM, Eunice Kennedy Shriver National Institute of Child H, Human Development Neonatal Research N. Survival and Neurodevelopmental Outcomes among Periviable Infants. *N Engl J Med* 376:617-628, 2017.

¹³ Holsti A, Adamsson M, Serenius F, Hagglof B, Farooqi A. Two-thirds of adolescents who received active perinatal care after extremely preterm birth had mild or no disabilities. *Acta Paediatr.* 105:1288-1297, 2016.; Serenius F, Ewald U, Farooqi A, Fellman V, Hafstrom M, Hellgren K, Marsal K, Ohlin A, Olhager E, Stjernqvist K, Stromberg B, Aden U, Kallen K, Extremely Preterm Infants in Sweden Study G. Neurodevelopmental Outcomes Among Extremely Preterm Infants 6.5 Years After Active Perinatal Care in Sweden. *JAMA Pediatr.* 170:954-963, 2016.

¹⁴ The Youngest Survivor with Gestational Age of 21^{5/7} Weeks. Sung SI, Ahn SY, Yoo HS, Chang YS, Park WS. *J Korean Med Sci.* 2018 Jan 15;33(3):e22. doi: 10.3346/jkms.2018.33.e22.; Two-Year Neurodevelopmental Outcome of an Infant Born at 21 Weeks'

Surprisingly, the recent advances in survival of extremely preterm infants are not widely appreciated in the medical profession, with most physicians erroneously believing the limit of viability to be substantially later than the facts actually indicate.¹⁵ The rapid improvement in survival of human infants born at increasingly younger ages strongly suggests that in the relatively near future, infants born prior to the 19th week of development may prove to be “viable,” due to technical advances in neonatal care.

18. Thalamo-cortical connections and long-range connections within the cortex do not arise until later in fetal life, beginning around 22-24 weeks¹⁶ (24-26 weeks post LMP), and continuing to develop for an exceptionally long time, not reaching full maturity until approximately 25 years after birth.¹⁷

4 Days' Gestation. Ahmad KA, Frey CS, Fierro MA, Kenton AB, Placencia FX. *Pediatrics*. 2017 Dec;140(6). pii: e20170103.

¹⁵ Survey of the Definition of Fetal Viability and the Availability, Indications, and Decision Making Processes for Post-Viability Termination of Pregnancy for Fetal Abnormalities and Health Conditions in Canada. Hull D, Davies G, Armour CM. *J Genet Couns*. 2016 Jun;25(3):543-51.

¹⁶ Functional maturation of neocortex: a base of viability. Gatti MG, Becucci E, Fagnoli F, Fagioli M, Áden U, Buonocore G. *J Matern Fetal Neonatal Med*. 2012;25 Suppl 1:101-3; 3D global and regional patterns of human fetal subplate growth determined in utero. Corbett-Detig J, Habas PA, Scott JA, Kim K, Rajagopalan V, McQuillen PS, Barkovich AJ, Glenn OA, Studholme C. *Brain Struct Funct*. 2011;215:255-63.; The development of the subplate and thalamocortical connections in the human foetal brain. Kostović I, Judas M. *Acta Paediatr*. 2010 Aug;99(8):1119-27.

¹⁷ Dynamic mapping of human cortical development during childhood through early adulthood. Gogtay N et al. *Proc Natl Acad Sci USA* 2004; 101:8174; Sowell ER et al (2003) Mapping cortical change across the human life span. *Nat Neurosci* 6:309;

19. Why is there controversy over the development of human pain perception? It is universally accepted that the simplest neural circuitry required to detect and respond to pain is in place by 8-10 weeks of human development.¹⁸ What is *not* universally accepted is at what point in development the ability to detect and respond to pain becomes psychologically and emotionally *meaningful*—*both* to the fetus and to society. Stated another way, the debate over fetal pain is not *whether* a fetus detects pain in some manner during the first trimester of life (all parties agree on this point), but rather *how* pain is experienced; i.e., whether a fetus is capable of “*suffering*.”

20. Two major reviews of the scientific literature on fetal pain are commonly cited as “authoritative” on this topic; one published by Royal College of Obstetricians and Gynecologists (hereafter RCOG) in 2010,¹⁹ and one published in the Journal of the American Medical Association (hereafter JAMA) in 2005.²⁰ Both discuss the same scientific literature presented here and both agree that the early arising spinal circuits sufficient for detection and response to pain (i.e. “nociception”) are in place by 8-10 weeks,

Changes of brain activity in the neural substrates for theory of mind during childhood and adolescence. Moriguchi Y, Ohnishi T, Mori T, Matsuda H, Komaki G. Psychiatry Clin Neurosci. 2007 Aug;61(4):355-63.

¹⁸ Ibid at 5.

¹⁹ Royal College of Obstetricians and Gynaecologists, Fetal Awareness: Review of Research and Recommendations for Practice (Mar. 2010). Available here: <https://www.rcog.org.uk/globalassets/documents/guidelines/rcogfetalawarenesswpr0610.pdf>

²⁰ Fetal pain: a systematic multidisciplinary review of the evidence. Lee SJ, Ralston HJ, Drey EA, Partridge JC, Rosen MA. JAMA. 2005;294:947-54.

with more sophisticated thalamic pain circuitry developing between 12-18 weeks.

21. Yet despite acknowledging the scientific facts regarding early fetal pain perception, both reviews somewhat paradoxically conclude that the fetus does not experience pain in a *meaningful* sense during the first two trimesters, because (they insist), late developing cortical circuitry is required for the conscious experience of pain that we call “*suffering*.” A position statement by the American College of Obstetricians and Gynecologists (hereafter ACOG) issued in 2012²¹ draws the same perplexing conclusion (that prior to 30 weeks, a fetus does not have the neural circuitry required for consciousness and “suffering”), based largely on the RCOG review.

22. In considering this paradox, it is important to note that RCOG and ACOG represent the primary providers of abortion services both in the United States and the United Kingdom, and therefore the views of these societies are likely to entail significant conflict of interest. Similarly, in 2005 at least two of the five authors of the JAMA review were directly involved in providing abortion services.²²

²¹ *Amicus Curiae Brief*, American College of Obstetricians and Gynecologists And American Congress of Obstetricians and Gynecologists. Paul A. Isaacson et al., v. Tom Home No. 1216670. United States Court of Appeals for the Ninth Circuit. Available here: http://cdn.ca9.uscourts.gov/datastore/general/2012/09/26/12_16670_AmicusBrief.pdf

²² The biographical information for Eleanor Drey, M.D., Ed.M. (available at: <http://bixbycenter.ucsf.edu/fs/bios/drey-eleanor.html>) states that she is “Medical Director of the Women’s Options Center of San Francisco General Hospital and an Associate Clinical Professor in the Department of Obstetrics, Gynecology and Reproductive Sciences of the University of California, San

23. In light of this potential bias, it is important to ask: What scientific evidence is presented by RCOG and JAMA in support of the surprising and pivotal assertion that although an 18-week fetus clearly possesses the neural circuitry required to detect and respond to pain, this response is irrelevant, because cortical circuitry is required for both consciousness and for “suffering?” Remarkably, the answer to this question is “none”; i.e. *RCOG and JAMA present absolutely no data in support of this critical claim.*

24. The RCOG review boldly states that, “Most pain neuroscientists believe that the cortex is necessary for pain perception,”²³ yet cites only three papers in support of this key assertion; one study of resting-state brain activity in infants that does not address pain perception,²⁴ one study in adults that, *in direct contradiction of RCOG’s claims*, indicates multiple non-cortical regions are involved in pain perception (the hypothalamus, periaqueductal grey matter and the thalamus),²⁵ and a third study in adults that also contradicts RCOG’s claim by demonstrating that all subjects who consciously experienced pain showed

Francisco.” The CV of Mark A. Rosen, MD (available at: <http://anes-som.ucsd.edu/VP%20Articles/RosenCV.pdf>) indicates his specialty is obstetrical anesthesiology.

²³ RCOG, pg. 11.

²⁴ Resting-state networks in the infant brain. Fransson P, Skiöld B, Horsch S, Nordell A, Blennow M, Lagercrantz H, Aden U. Proc Natl Acad Sci U S A. 2007 Sep 25;104(39):15531-6

²⁵ The brain-heart axis in the perception of cardiac pain: the elusive link between ischaemia and pain. Rosen SD, Camici PG. Ann Med. 2000 Jul;32(5):350-64; Neural correlates of inter-individual differences in the subjective experience of pain. Coghill RC, McHaffie JG, Yen YF. Proc Natl Acad Sci U S A. 2003 Jul 8;100(14):8538-42

neural activity in the thalamus, while only the most “sensitive” subjects showed activity in the cortex.²⁶

25. Similarly, the JAMA review flatly asserts that, “Pain is a subjective sensory and emotional experience that requires the presence of consciousness.”²⁷ Yet like RCOG, JAMA *also* does not list a single scientific study in support of this far-reaching claim. Instead, JAMA refers the reader to a website maintained (at that time) by the International Association for the Study of Pain as a resource for terminology and cites a pair of expert opinion papers, neither of which directly addresses the role of the cortex in either consciousness or pain perception. *Thus neither JAMA nor the RCOG presents a single piece of scientific evidence that a fetus is incapable of consciousness or that “suffering” requires cortical circuitry.*

26. What brain structures are actually required for pain perception? In contrast to the lack of scientific evidence supporting the pivotal assertion of RCOG and JAMA that the fetus is incapable of suffering because the cortex is necessary for conscious pain experience, there is an enormous body of scientific data that clearly indicates *the cortex is not required for either consciousness or suffering—data* that RCOG and JAMA simply ignore. Nine independent lines of scientific evidence that strongly contradict the conclusions of RCOG and JAMA are summarized briefly below.

²⁶ Neural correlates of interindividual differences in the subjective experience of pain. Coghill RC, MeHaffie JG, Yen YF. Proc Natl Acad Sci U S A. 2003 Jul 8;100(14):8538-42.

²⁷ JAMA, pg. 848.

27. Although the neocortex is unique to mammals,²⁸ animals that entirely *lack* this region of the brain (fish, amphibians, reptiles and birds) are clearly both *conscious* and capable of *suffering*.²⁹ This was obvious to Jeremy Bentham, even in 1789. More recently, extensive studies have determined that the neural structures underlying the most primitive form of consciousness in both humans and animals are found in subcortical regions of the brain,³⁰ with one expert stating categorically, “it is now eminently clear that affective consciousness is a property of subcortical circuits we share with the other animals.”³¹ These

²⁸ Genetic and developmental homology in amniote brains. Toward conciliating radical views of brain evolution. Aboitiz F. *Brain Res Bull.* 2011 Feb 1;84(2):125-36.; Evolution of the amniote pallium and the origins of mammalian neocortex. Butler AB, Reiner A, Karten HI *Ann N Y Acad Sci.* 2011 Apr;1225:14-27.

²⁹ The area of consciousness research is both complex and contested. However, it is obvious that an alert and active animal (i.e. a “conscious” animal) is different from an anesthetized or sleeping animal (i.e. an “unconscious” animal). Whether the consciousness of an alert animal is the same as that of a human is open to interpretation, but alert animals are clearly capable of suffering.

³⁰ Reviewed in: Evolutionary aspects of self- and world consciousness in vertebrates. Fabbro F, Aglioti SM, Bergamasco M, Clarici A, Panksepp J. *Front Hum Neurosci.* 2015 Mar 26;9:157.; Hallmarks of consciousness. Butler AB. *Adv Exp Med Biol.* 2012;739:291-309.; Animal consciousness: a synthetic approach. Edelman DB, Seth AK. *Trends Neurosci.* 2009 Sep;32(9):476-84.; 17. Emotion and cortical-subcortical function: conceptual developments. Bennett MR, Hacker PM. *Prog Neurobiol.* 2005 Jan;75(1):29-52

³¹ Cross-species affective neuroscience decoding of the primal affective experiences of humans and related animals. Panksepp J. *PLoS One.* 2011;6(9):e21236.

“subcortical circuits” would include brain structures that are well developed in a human fetus by 18 weeks.

28. Mammals (including rodents, cats and primates) that have had the cortex partially or fully removed *remain conscious* and continue to show a *vigorous response to painful stimuli*.³²

29. Similarly, human children born without the cortex (‘decorticate’ or hydranencephalic patients) are capable of conscious behaviors, including smiling, distinguishing between familiar/unfamiliar people and situations, having preferences for particular kinds of music and having adverse reactions to pain.³³ This evidence clearly indicates (in direct contradiction of the unsupported claims of RCOG and JAMA) that long-range cortical connections developing only after

³² Effects of partial decortication on opioid analgesia in the formalin test. Matthies BK, Franklin KB. *Behav Brain Res.* 1995;67:59-66.; Formalin pain is expressed in decerebrate rats but not attenuated by morphine. Matthies BK, Franklin KB. *Pain.* 1992; 51:199-206.; Effects of selective prefrontal decortication on escape behavior in the monkey. Tanaka D Jr. *Brain Res.* 1973 Apr 13;53(1):161-73.; Somatosensory cortical involvement in responses to noxious stimulation in the cat. Berkley KJ, Parmer R. *Exp Brain Res.* 1974;20(4):363-74.; Formalin pain is expressed in decerebrate rats but not attenuated by morphine. Matthies BK, Franklin KB. *Pain.* 1992 Nov;51(2):199-206.

³³ Consciousness without cortex: a hydranencephaly family survey. Aleman B, Merker B. *Acta Paediatr.* 2014 Oct;103(10):1057-65.; The presence of consciousness in the absence of the cerebral cortex. Beshkar M. *Synapse.* 2008;62;553-6.; Consciousness in congenitally decorticate children: developmental vegetative state as self-fulfilling prophecy. Shewmon DA, Holmes GL, Byrne PA. *Dev Med Child Neurol.* 1999;41:364-74.; The role of primordial emotions in the evolutionary origin of consciousness. Denton DA, McKinley MJ, Farrell M, Egan GF. *Conscious Cogn.* 2009;18:500-14.; Consciousness without a cerebral cortex: a challenge for neuroscience and medicine. Merker B. *Behav Brain Sci.* 2007;30(1):63-81.

22 weeks in the human fetus, and completely absent in these patients, *are not obligatory for consciousness or for a psychological perception of suffering.*

30. Conversely, the largest study conducted to date of human patients with disorders of consciousness³⁴ unambiguously concludes that loss of *subcortical*, not *cortical* circuitry is associated with loss of consciousness, stating, “clinical measures of awareness and wakefulness upon which differential diagnosis rely were systematically associated with tissue atrophy within *thalamic and basal ganglia nuclei*” (emphasis added). Moreover, experts in the study of consciousness conclude that consciousness clearly persists in the absence of “vast regions of the cortex.”³⁵

31. Recent authoritative reviews of the neural basis of consciousness and emotion in humans also do not support the claims of RCOG and JAMA that conscious feelings (including suffering) are exclusively represented in the cortex. Rather, these experts conclude that “the available evidence indicates that phylogenetically recent sectors of the nervous system, such as the cerebral cortex, contribute to but are not essential for the emergence of feelings, which are likely to arise instead from older regions such as the brainstem” and

³⁴ Thalamic and extrathalamic mechanisms of consciousness after severe brain injury. Lutkenhoff ES, Chiang J, Tshibanda L, Kamau E, Kirsch M, Pickard JD, Laureys S, Owen AM, Monti MM. *Ann Neurol.* 2015 Jul;78(1):68-76.

³⁵ Minimal neuroanatomy for a conscious brain: homing in on the networks constituting consciousness. Morsella E, Krieger SC, Bargh JA. *Neural Netw.* 2010;23:14-5.

that the “neural substrates [of consciousness] can be found at all levels of the nervous system.”³⁶

32. Although anesthesia has been used for over 150 years, the precise mechanisms by which anesthetics suppress both consciousness and pain are not well understood.³⁷ However, recent work using high resolution brain imaging in both animals³⁸ and humans³⁹ strongly indicates that anesthesia-induced loss of consciousness is associated with a reduction in the activity

³⁶ The nature of feelings: evolutionary and neurobiological origins. Damasio A, Carvalho GB. *Nat Rev Neurosci.* 2013;14:143-52.

³⁷ Cerebral mechanisms of general anesthesia. Uhrig L, Dehaene S, Jarraya B. *Ann Fr Anesth Reanim.* 2014 Feb;33(2):72-82. doi: 10.1016/j.annfar.2013.11.005. Epub 2013 Dec 22.; General anaesthesia: from molecular targets to neuronal pathways of sleep and arousal. Franks NP. *Nat Rev Neurosci.* 2008 May;9(5):370-86.; Mechanisms of anesthesia: towards integrating network, cellular, and molecular level modeling. Arhem P, Klement G, Nilsson J. *Neuropsychopharmacology.* 2003 Jul;28 Suppl 1:S40-7.

³⁸ Attenuation of high-frequency (50-200 Hz) thalamocortical EEG rhythms by propofol in rats is more pronounced for the thalamus than for the cortex. Reed SJ, Plourde G. *PLoS One.* 2015 Apr 15;10(4):e0123287.; Altered activity in the central medial thalamus precedes changes in the neocortex during transitions into both sleep and propofol anesthesia. Baker R, Gent TC, Yang Q, Parker S, Vyssotski AL, Wisden W, Brickley SG, Franks NP. *J Neurosci.* 2014 Oct 1;34(40):13326-35.

³⁹ Anesthetic effects of propofol in the healthy human brain: functional imaging evidence. Song XX, Yu BW. *J Anesth.* 2015 Apr;29(2):279-88.; The thalamus and brainstem act as key hubs in alterations of human brain network connectivity induced by mild propofol sedation. Gill T, Saxena N, Diukova A, Murphy K, Hall JE, Wise RG. *J Neurosci.* 2013 Feb 27;33(9):4024-31.; Thalamus, brainstem and salience network connectivity changes during propofol-induced sedation and unconsciousness. Guldenmund P, Demertzi A, Boveroux P, Boly M, Vanhaudenhuyse A, Bruno MA, Gosseries O, Noirhomme Q, Brichant JF, Bonhomme V, Laureys S, Soddu A. *Brain Connect.* 2013;3(3):273-85.

of the thalamus, that is only later followed by suppression of cortical activity in response to reduced thalamic function. These studies indicate that consciousness—and therefore conscious pain perception depends on *thalamic* not *cortical* circuitry.

33. The cortical regions associated with processing of painful experiences (dorsal-lateral prefrontal cortex and dorsal-anterior cingulate cortex⁴⁰) continue to develop for decades after birth, with these regions being among the last to achieve maturity.⁴¹ However, our perception of physical pain and suffering remains relatively constant from childhood into adulthood,⁴² strongly indicating that while our *understanding* of pain and the *associations* it elicits may become more complex over time, late-developing cortical circuitry is not required for a conscious experience of suffering.

34. The most scientifically accurate way of determining the neural structures required for a conscious experience of suffering (or any other conscious experience), independent of the activity of more basic brain regions that simply transmit pain information to our conscious awareness, is to directly stimulate a specific brain region in an alert patient and see if a pain response is elicited—thereby *proving* that the stimulated area is sufficient for a psychological experience of suffering.

⁴⁰ Imaging CNS modulation of pain in humans. Bingel U, Tracey I. *Physiology* (Bethesda). 2008 Dec;23:371-80.

⁴¹ *Ibid* at 10.

⁴² The development of nociceptive circuits. Fitzgerald M. *Nat Rev Neurosci*. 2005 Jul;6(7):507- 20.; Children's ratings of post-operative pain compared to ratings by nurses and physicians. LaMontagne LL, Johnson BD, Hepworth JT. *Issues Compr Pediatr Nurs*. 1991 Oct-Dec;14(4):241-7.; Management of pain in childhood. Harrop JE. *Arch Dis Child Educ Pract Ed*. 2007 Aug;92(4):ep101-8.

In agreement with decades of earlier research,⁴³ a recent study of over 4000 stimulations of the cortex determined that pain responses were surprisingly rare (approximately 1.4%).⁴⁴ This demonstrates that while the cortex may “process” painful experiences delivered to the cortex from other brain regions, it is *largely not involved in producing a conscious experience of pain*; i.e. our conscious experience of suffering depends almost entirely on subcortical brain regions that develop very early in the human fetus.

35. Finally, a large body of direct experimental and medical evidence from adult humans afflicted with chronic pain contradicts the assertion of RCOG and JAMA that “suffering” requires cortical circuitry.

⁴³ The insula; further observations on its function. Penfield, W., Faulk, M.E. Jr. *Brain*. 1955;78(4):445-70.; Penfield W, Jasper H. *Epilepsy and the functional anatomy of the human brain*. Boston: Brown L; 1954

⁴⁴ Stimulation of the human cortex and the experience of pain: Wilder Penfield’s observations revisited. Mazzola L, Isnard J, Peyron R, Mauguière F. *Brain*. 2012;135:631-40.; See also, Anatomofunctional organization of the insular cortex: a study using intracerebral electrical stimulation in epileptic patients. Afif A, Minotti L, Kahane P, Hoffmann D. *Epilepsia*. 2010 Nov;51(11):2305-15.; Pain-related neurons in the human cingulate cortex. Hutchison WD, Davis KD, Lozano AM, Tasker RR, Dostrovsky JO. *Nat Neurosci*. 1999 May;2(5):403-5.; Functional mapping of the insular cortex: clinical implication in temporal lobe epilepsy. Ostrowsky K, Isnard J, Ryvlin P, Guénot M, Fischer C, Mauguière F. *Epilepsia*. 2000 Jun;41(6):681-6.; Representation of pain and somatic sensation in the human insula: a study of responses to direct electrical cortical stimulation. Ostrowsky K, Magnin M, Ryvlin P, Isnard J, Guénot M, Mauguière F. *Cereb Cortex*. 2002 Apr;12(4):376-85.; Clinical manifestations of insular lobe seizures: a stereo-electroencephalographic study. Isnard J, Guénot M, Sindou M, Mauguière F. *Epilepsia*. 2004 Sep;45(9):1079-90.

Ablation⁴⁵ or stimulation⁴⁶ of the cortex does not affect pain perception, whereas altering the function of subcortical structures, including the thalamus, does.⁴⁷ Indeed, “Deep Brain Stimulation” of the thalamus, periaqueductal grey matter and internal capsule (all early developing, subcortical brain centers) has proven to be a highly effective treatment for chronic pain in human patients.⁴⁸

⁴⁵ Ibid at 29.

⁴⁶ Motor cortex stimulation in patients with post-stroke pain: conscious somatosensory response and pain control. Fukaya C, Katayama Y, Yamamoto T, Kobayashi K, Kasai M, Oshima H. *Neurol Res.* 2003;25:153-6.; Stimulation of the human cortex and the experience of pain: Wilder Penfield’s observations revisited. Mazzola L, Isnard J, Peyron R, Mauguière F. *Brain.* 2012;135:631-40.

⁴⁷ Somatotopic organisation of the human insula to painful heat studied with high resolution functional imaging. Brooks JC, Zambreanu L, Godinez A, et al. *Neuroimage* 2005; 27:201-209; Thalamic field potentials in chronic central pain treated by periventricular gray stimulation: a series of eight cases. Nandi D, Aziz T, Carter H, et al. *Pain* 2003;101:97-107; Thalamic field potentials during deep brain stimulation of periventricular gray in chronic pain. Nandi D, Liu X, Joint C, et al. *Pain* 2002; 97:47-51; Long-term outcomes of deep brain stimulation for neuropathic pain. Boccard SG, Pereira EA, Moir L, Aziz TZ, Green AL. *Neurosurgery.* 2013;72:221-30.; Regional cerebral perfusion differences between periventricular grey, thalamic and dual target deep brain stimulation for chronic neuropathic pain. Pereira EA, Green AL, Bradley KM, Soper N, Moir L, Stein JF, Aziz TZ. *Stereotact Funct Neurosurg.* 2007;85:175-83.; Penfield W, Jasper HH. *Epilepsy and the Functional Anatomy of the Human Brain.* Boston: Little, Brown & Co; 1954.

⁴⁸ Deep Brain Stimulation for Chronic Pain. Falowski SM. *Curr Pain Headache Rep.* 2015 Jul;19(7):27.; Deep brain stimulation for chronic pain. Boccard SG, Pereira EA, Aziz TZ. *J Clin Neurosci.* 2015 Jun 26. pii: S0967-5868(15)00218-0.; Deep brain stimulation for pain relief: a meta-analysis. Bittar RG, Kar-

36. Taken together, this extensive and diverse body of data clearly indicates that pain perception, including “suffering,” *does not depend on cortical circuitry and is largely mediated by sub-cortical brain networks*. And, as noted above, it is universally accepted that sub-cortical, spino-thalamic circuits capable of pain perception are established in a human fetus between 12-18 weeks.

37. What can we directly observe about how a fetus responds to painful stimuli? Multiple studies⁴⁹ clearly indicate that, “the human fetus from 18-20 weeks elaborates pituitary-adrenal, sympatho-adrenal, and

Purkayastha I, Owen SL, Bear RE, Green A, Wang S, Aziz TZ. J Clin Neurosci. 2005 Jun;12(5):515-9.

⁴⁹ The human fetus preferentially secretes corticosterone, rather than cortisol, in response to intrapartum stressors. Wynne-Edwards KE, Edwards HE, Hancock TM. PLoS One. 2013 Jun 14;8(6):e63684.; Autonomous adrenocorticotropin reaction to stress stimuli in human fetus. Kosinska-Kaczynska K, Bartkowiak R, Kaczynski B, Szymusik I, Wielgos M. Early Hum Dev. 2012 Apr;88(4):197-201.; Fetal stress response to fetal cardiac surgery. Lam CT, Sharma S, Baker RS, Hilshorst J, Lombardi J, Clark KE, Eghtesady P. Ann Thorac Surg. 2008 May;85(5):1719-27.; Human fetal and maternal corticotrophin releasing hormone responses to acute stress. Gitau R, Fisk NM, Glover V. Arch Dis Child Fetal Neonatal Ed. 2004 Jan;89(1):F29-32.; Fetal hypothalamic-pituitary-adrenal stress responses to invasive procedures are independent of maternal responses. Gitau R, Fisk NM, Teixeira JM, Cameron A, Glover V. J Clin Endocrinol Metab. 2001 Jan;86(1):104-9.; Acute cerebral redistribution in response to invasive procedures in the human fetus. Teixeira JM, Glover V, Fisk NM. Am J Obstet Gynecol. 1999 Oct;181(4):1018-25.; Fetal plasma cortisol and beta-endorphin response to intrauterine needling. Giannakoulopoulos X, Sepulveda W, Kourtis P, Glover V, Fisk NM. Lancet. 1994 Jul 9;344(8915):77-81.; Acute increase in femoral artery resistance in response to direct physical stimuli in the human fetus. Smith RP, Glover V, Fisk NM. BJOG. 2003 Oct;110(10):916-21.

circulatory stress responses to physical insults,” that can be eliminated by appropriate anesthesia.⁵⁰ In support of the conclusion that pain is experienced very early in human development, fetuses delivered prematurely (as early as 23 weeks), also show clear pain-related behaviors.⁵¹ Strikingly, the earlier infants are delivered, the stronger their response to pain,⁵² perhaps due to the absence of late developing cortical circuits that *inhibit* pain perception.⁵³

38. Finally, painful experiences during prenatal life can potentially have long-term impact on neural development,⁵⁴ with one pain expert stating, “Whereas

⁵⁰ Effect of direct fetal opioid analgesia on fetal hormonal and hemodynamic stress response to intrauterine needling. Fisk NM, Gitau R, Teixeira JM, Giannakouloupoulos X, Cameron AD, Glover VA. *Anesthesiology*. 2001;95:828-35.

⁵¹ Pain behaviours in Extremely Low Gestational Age infants. Gibbins 5, Stevens B, Beyene J, Chan PC, Bagg M, Asztalos E. *Early Hum Dev*. 2008;84:451-8.

⁵² Determinants of premature infant pain responses to heel sticks. Badr LK, Abdallah B, Hawari M, Sidani S, Kassar M, Nakad P, Breidi J. *Pediatr Nurs*. 2010;36:129-36.

⁵³ Descending pain modulation and chronification of pain. Ossipov MH, Morimura K, Porreca F. *Curr Opin Support Palliat Care*. 2014 Jun;8(2):143-51; The role of descending inhibitory pathways on chronic pain modulation and clinical implications. Kwon M, Altin M, Duenas H, Alev L. *Pain Pract*. 2014 Sep;14(7):656-67.; The consequences of pain in early life: injury-induced plasticity in developing pain pathways. Schwaller F, Fitzgerald M. *Eur J Neurosci*. 2014 Feb;39(3):344-52.

⁵⁴ Pain and stress in the human fetus. Smith RP, Gitau R, Glover V, Fisk NM. *Eur J Obstet Gynecol Reprod Biol*. 2000 Sep;92(1):161-5.; Pain and stress in the human fetus. White MC, Wolf AR. *Best Pract Res Clin Anaesthesiol*. 2004 Jun;18(2):205-20.; Management of fetal pain during invasive fetal procedures. A review. Huang W, Deprest J, Missant C, Van de Velde M. *Acta Anaesthesiol Belg*. 2004;55(2):119-23.

evidence for conscious pain perception is indirect, evidence for the subconscious incorporation of pain into neurological development and plasticity is *incontrovertible*⁵⁵ (emphasis added).

39. These and many other direct observations of fetal behavior and physiology have resulted in a clear consensus among professional anesthesiologists that the use of medications to relieve pain is warranted in cases of fetal surgery.⁵⁶ Many of the advocates of fetal anesthesia make no claims regarding the *qualitative* nature of fetal pain, but based on both the scientific literature and on their own observations, they clearly conclude that pain *exists* for these fetuses and that they are obligated to address fetal pain medically, despite the many serious challenges and medical risks entailed in providing pain relief to a fetus in utero. In considering use of anesthesia for the fetal procedures, a recent review of the evidence concludes that from the 13th week onward (15th week, LMP), “the fetus is

⁵⁵ Neurodevelopmental changes of fetal pain. Lowery CL, Hardman MP, Manning N, Hall RW, Anand KJ, Clancy B. *Semin Perinatol.* 2007 Oct;31(5):275-82.

⁵⁶ Use of fetal analgesia during prenatal surgery. Bellieni CV, Tei M, Stazzoni G, Bertrando S, Cornacchione S, Buonocore G. *J Matern Fetal Neonatal Med.* 2013;26:90-5.; Towards state-of-the-art anesthesia for fetal surgery: obstacles and opportunities. Kuczkowski KM. *Rev Esp Anesthesiol Reanim.* 2013 Jan;60(1):3-6.; Fetal and maternal analgesia/anesthesia for fetal procedures. Van de Velde M, De Buck F. *Fetal Diagn Ther.* 2012;31:201-9.; Anesthesia for fetal surgery. Lin EE, Tran KM. *Semin Pediatr Surg.* 2013;22:50-5.; Anesthesia for in utero repair of myelomeningocele. Ferschl M, Ball R, Lee H, Rollins MD. *Anesthesiology.* 2013;118:1211-23.; Anesthesia for fetal surgery. Tran KM. *Semin Fetal Neonatal Med.* 2010 Feb;15(1):40-5.; Anesthesia for fetal procedures and surgery. Rosen MA. *Yonsei Med J.* 2001 Dec;42(6):669-80.

extremely sensitive to painful stimuli, and that this fact should be taken into account when performing invasive medical procedures on the fetus. It is necessary to apply adequate analgesia to prevent the suffering of the fetus.”⁵⁷

40. Is there a “consensus” on development of pain perception in human fetuses? The JAMA review is the most widely cited authority on the topic of fetal pain, and is often said to reflect the “consensus” of expert opinion. Yet it is important to ask: do JAMA’s conclusions accurately represent the views of most neuroscientists—even at the time? As noted above, multiple lines of evidence clearly contradict the view presented by JAMA. Yet surprisingly, even the expert opinion papers cited by JAMA *itself* (papers that *also* review the pain literature available at the time) do not agree with JAMA’s interpretation of the evidence.

41. The first of these papers disagrees with JAMA’s conclusion that “tests of cortical function suggest that conscious perception of pain does not begin before [29 or 30 weeks fetal age],”⁵⁸ instead concluding that the available evidence suggests pain perception commences considerably earlier, stating, “fetuses of around [26-28 weeks fetal age] are capable of feeling pain.”⁵⁹ (The authors of this expert review do not address the experience of younger fetuses, likely due

⁵⁷ Sekulic S, Gebauer-Bukurov K, Cvijanovic M, Kopitovic A, Ilic D, Petrovic D, Capo I, Pericin-Starcevic I, Christ O, Topalidou A. Appearance of fetal pain could be associated with maturation of the mesodiencephalic structures. *J Pain Res.* 9:1031-1038, 2016. p. 1036.

⁵⁸ JAMA, pg. 952.

⁵⁹ A pain in the fetus: toward ending confusion about fetal pain. Benatar D, Benatar M. *Bioethics.* 2001 Feb;15(1):57-76

to the lack of sufficient evidence at the time, yet see the evidence presented above).

42. The second paper cited by JAMA *also* rejects the conclusion that a fetus is incapable of suffering before 29-30 weeks, stating that, “The physical system for nociception is present and functional by [24 weeks fetal age] and it seems likely that the fetus is capable of feeling pain from this stage.”⁶⁰ These authors acknowledge that the data on development of human pain perception is limited, yet they argue that in the absence of *unambiguous* evidence, the fetus should be given the benefit of the doubt, stating:

“The eighteenth century philosopher, Jeremy Bentham, wrote of animals *The question is not Can they reason? not Can they talk? but Can they suffer?* This caused a change in attitude towards animals and their treatment that is continuing today, such that in the UK, even frogs and fishes are required by Act of Parliament to be protected by anaesthesia from possible suffering due to invasive procedures. Why not human beings?”

43. Thus, even back in 2005, credible experts were not unanimous in their interpretation of the evidence. JAMA *itself refrains* from drawing a firm conclusion, conceding that the “limited” scientific evidence merely indicates “fetal perception of pain is *unlikely* before the third trimester” (emphasis added; p. 947). And due to the personal nature of pain, uncertainty regarding the psychological experience of the fetus will undoubtedly persist. It may *never* be possible to scientifically determine whether a fetus is capable of “suffering.”

⁶⁰ Fetal pain: implications for research and practice. Glover V, Fisk NM. Br J Obstet Gynaecol. 1999 Sep;106(9):881-6

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Yet there is undisputed evidence that a human fetus detects and reacts to pain as early as 8 weeks. And this evidence requires us to decide whether we will act to protect the fetus from *possible* suffering, just as we protect animals from *possible* suffering. The scientific evidence is more than sufficient to *require* an answer to the question, “Why not human beings?”

44. My fee for giving any deposition(s) is \$1,000.00 per hour for testimonial time, \$75.00 per hour for travel time, \$400.00 per hour for time spent reviewing and correcting any resulting deposition transcript and 100% of any out-of-pocket expenses incurred.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Date: July 12, 2018

By: /s/ Maureen L Condic
Dr. Maureen L. Condic, Ph.D

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Curriculum Vitae

Last Updated: 16 January, 2017

PERSONAL DATA

Name: Maureen L. Condic
Birth Place: Chicago, Illinois
Citizenship: United States
Mailing Address Department of Neurobiology
and Anatomy
University of Utah,
School of Medicine
401 MREB, 20 North 1900 East
Salt Lake City, UT 84132-3401

EDUCATION

Years	Degree(s)	Institution (Area of Study)
1978-1982	B.A.	University of Chicago (Psychology)
1983-1989	Ph.D.	University of California, Berkeley (Neurobiology)
1989-1991	Postdoc	University of California, Berkeley (Development)
1991-1997	Postdoc	University of Minnesota, Minneapolis (Cell Biology)

PROFESSIONAL EXPERIENCE

Full Time Positions

7/1/1997-2/28/1999 Research Assistant
Professor, Department of
Neurobiology
University of Utah,
Salt Lake City, UT, USA

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7/1/1997-6/30/2010	Adjunct Assistant Professor, Department of Pediatrics, University of Utah, Salt Lake City, UT, USA
3/1/1999-6/30/2004	Assistant Professor, Department of Neurobiology University of Utah, Salt Lake City, UT, USA
7/1/2004-Present	Associate Professor, Tenured, Department of Neurobiology University of Utah, Salt Lake City, UT, USA
7/1/2010-Present	Adjunct Associate Professor, Department of Pediatrics, University of Utah, Salt Lake City, UT, USA

Part Time Positions

2007-2012	Westchester Institute, Senior Fellow
2007-Present	National Catholic Bioethics Quarterly; Scientific Advisory Board
2008-Present	Bioethics Defense Fund; Director, Scientific Advisory Board
2011-Present	Charlotte Lozier Institute, Associate Scholar
2014-Present	Ombudsman, University of Utah
2014-Present	Center for Ethics and Culture, Fellow, Notre Dame University
2015-Present	Pontifical Academy for Life, Corresponding Member

Temporary Positions

- 2010 Oxford University, Harris Manchester College, Theology Department Ph.D. External Examiner. *Stem Cell Research, A critical study of the thought of John Harris, Mary Warnock and H. Tristram Engelhardt in the light of Christian holistic anthropology*, by Angeliki Kerasidou.
- 2011-15 Visiting Professor, Notre Dame University, South Bend, IN.
- 2013 Visiting Professor, Catholic University of America, Washington, DC.
- 2013 Visiting Professor, St. John's University, Rome, Italy.
- 2016 House Investigative Panel, U.S. House of Representatives, Washington, DC., Scientific Consultant.

Editorial Experience

- 2007-Present National Catholic Bioethics Quarterly; Editorial Board
- 2010-Present Stem Cell Reviews and Reports, Editorial Board
- 1997-Present Journal Referee:
(12-20 manuscripts/year)
- Cell Biology
 - Cell Stem Cell
 - Development
 - Developmental Biology
 - Developmental Dynamics

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European Journal of
Neuroscience
Experimental Cell Research
Experimental Neurology
Expert Opinion On Therapeutic
Patents
Journal of Cell Biology
Journal of Cellular Physiology
Journal of Comparative
Neurology
Journal of Neuroscience
Molecular Biology of the Cell
Molecular and Cellular
Neuroscience
National Catholic Bioethics
Quarterly
Neural Development
Regenerative Medicine
Science
Stem Cells
Stem Cells and Development
Stem Cell Reviews and Reports
Stem Cells Translational
Medicine

SCHOLASTIC HONORS

1999	Pew Scholarship Nominee, University of Utah
1999-2001	Basil O'Conner Young Investigator, March of Dimes, USA
2002-2005	McKnight Neuroscience of Brain Disorders Investigator

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2006 Invited Audience with His Holiness
Pope Benedict XVI

2015-6 Invited Audience with His Holiness
Pope Francis

ADMINISTRATIVE EXPERIENCE

2000-2003 Co-chair, Faculty Recruitment
Committee, Neurobiology and Anatomy.

2001-2006 Director of Graduate Studies,
Neurobiology and Anatomy.

2006-2009 Course Director, School of Medicine,
Medical Embryology course.

2010- Embryology curriculum Director,
Present School of Medicine,

2010-2011 Member, Promotions Committee,
School of Medicine.

2011-2014 Member, Curriculum Evaluation
Committee, School of Medicine.

2012-2013 Southwest Regional Developmental
Biology Organizing Committee Member

2013 Southwest Regional Developmental
Biology meeting; Stem cells and
Regeneration session chair.

2014- Member, Curriculum Committee,
Present School of Medicine.

2014 Chair, organizing committee CUA/BDF
symposium on the determination of
death.

UNIVERSITY COMMUNITY ACTIVITIES

1997- Member, Molecular Biology, Molecular
Present Biology Graduate Training Program.

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- 1997-
Present Member, Neuroscience Program,
Neuroscience Graduate Training
Program.
- 1999-2000 Member and Co-Chair, Neurobiology
and Anatomy Department, Faculty
Recruitment Committee.
- 1999-2003 Member and Director, Neurobiology
and Anatomy Department, Student
Advising Committee.
- 1999-2003 Member, Neuroscience Program,
Seminar Selection Committee.
- 1999-
Present Member, Pediatrics Department, Child
Health Research Career Development
Award Advisory Committee.
- 2001-2003 Member, Molecular Biology, Molecular
Biology Program Steering Committee.
- 2001 Member, Neurobiology and Anatomy
Department, Departmental Advisory
Committee (DAC).
- 2003 Member, School of Medicine, Research
Subcommittee for Reaccreditation.
- 2005 Member, Neurobiology and Anatomy
Department, Departmental Advisory
Committee (DAC).
- 2007 Member, School of Medicine,
University of Utah Academic Senate
Nominating Committee.
- 2007 Member, University of Utah Graduate
Council, Department of Bioengineering,
Internal departmental review
committee.

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- 2009 Member, Neurobiology and Anatomy Department, Departmental Advisory Committee (DAC).
- 2010 Member, Neurobiology and Anatomy Department, Departmental Advisory Committee (DAC).
- 2010 Member, Neuroscience Program, Admissions Committee.
- 2010-2011 Member, School of Medicine, Promotions Committee.
- 2011 Member, Neurobiology and Anatomy Department, Departmental Advisory Committee (DAC).
- 2011- Present Member, Department of Pediatrics Early Career Development Research Grant review committee.
- 2011- Present Member, Department of Pediatrics Women and Child Institute Basic Science Design Group.
- 2011- Present Member, Department of Pediatrics Women and Child Institute Faculty Career Development Design Group.
- 2011-2014 Member, Curriculum Oversight Group, School of Medicine.
- 2014- Present Member, Curriculum Committee, School of Medicine.
- 2014- Present Ombusman, University of Utah.

PROFESSIONAL COMMUNITY ACTIVITIES

Grant Review Committee/Study Sections

- 1998-1999 Member, Spinal Cord Research Foundation

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- 1999 Ad Hoc Member, NIH MCDN7 Study Section
- 2000 Ad Hoc Member, NIH NSDB Study Section
- 2002 Ad Hoc Member, NIH MCDN1 Study Section 2002 Member, Alzheimer's Association
- 2003 Member, Wellcome Trust
- 2004-2005 Ad Hoc Member, NIH NCF Study Section
- 2005 Ad Hoc Grant Reviewer, National Science Foundation, Developmental Systems
- 2007 Ad Hoc Grant Reviewer, Medical Research Council, United Kingdom
- 2009 Ad Hoc Member, NIH NDPR Study Section
- 2010 Ad Hoc Member, NIH NSC2 Study Section

Public Education: Scientific and Bioethics interviews (Radio, Print, Television)

- 2001 Radio interview, WWJ (Detroit, MI); Current scientific research on spinal cord injury.
- 2001 Radio interview, WMUK (Kalamazoo, MI); Gene manipulation as a treatment for spinal cord Injury.
- 2001 Newspaper interview, Salt Lake Tribune (Salt Lake City, UT) 29 July; Troy Goodman "Utah Leaders in debate over ethics, possibilities of stem cell research".

- 2002 Radio interview, KUER (Salt Lake City, UT); Research on spinal cord injury and therapeutic approaches to rehabilitation.
- 2002 Radio interview, KCPW, Talk of the City Science Friday (Salt Lake City, UT); Current brain research at the University of Utah.
- 2002 Newspaper interview; Our Sunday Visitor (National circulation); Woodeene Koenig-Bricker. Scientific issues surrounding stem cells.
- 2004 Interview, Science and Theology News, Templeton Foundation (National circulation); Chhari Sadhcev. Science Policy and Science funding.
- 2005 Interview, Health Sciences Report, University of Utah, Salt Lake City, UT; Phil Sahn. Current research on Neural Crest development.
- 2005 Interview, Wired Magazine (National circulation); Clive Thompson. Scientific and ethical issues surrounding altered nuclear transfer.
- 2006 Interview, The Weekly Standard (National Circulation) 3 July; Colleen Carroll Campbell. A clone by any other name; Missouri's deceptively worded ballot measure.
- 2006 Interview, National Review Online (National Circulation) 7 July; Fr, Thomas Berg. A Step Toward Clarity. Recent cloning headlines may herald the end of embryo name games.
- 2006 Radio Interview, KSL, The Doug Wright Show (Salt Lake City, UT); Potential of stem cell research.

- 2006 Interview, Catholic News Service (International Circulation) 18 September; Carol Glatz. Pope endorses adult stem-cell research.
- 2006 Interview, Brain Institute news; Julie Kiefer. Two research papers report “ethical” means to derive embryonic stem cells; The debate rages on.
- 2007 Interview, KVSS, The Spirit Morning Show (Omaha, Nebraska) 10 January; Kris McGregor, The science of stem cell research.
- 2007 Interview, Representative Rob Inglis (South Carolina), 10 January; Discussion with Rep, Inglis staff of human development, embryonic and adult stem cell research. Dr. Willy Lensch (Harvard Medical School), co-participant.
- 2007 Interview, Dr. David Stevens, CEO for the Christian Medical & Dental Associations (National membership) 12 February; Science of stem cell research.
- 2007 Interview. Scientist hopeful about new stem cell studies. 6 June; Carrie Gress. Zenit, (International circulation). Rome Italy.
- 2007 Radio Interview. Induced Pluripotent Stem cells. Family news in focus (National syndication). 20 June. Steve Jordahl. Colorado Springs, CO.
- 2007 Radio Interview. Cloning legislation. Chip Maxwell. KKAR. Omaha, NE.
- 2007 Interview. Stem Cell Breakthrough Hailed. 20 November; Carrie Gress. ZENIT news agency, (International circulation). Rome Italy.

- 2007 Interview. Scientist hopeful about new stem cell studies. 6 June; Carrie Gress. ZENIT news agency, (International circulation). Rome Italy.
- 2008 Interview. Ethical concerns with the iPS approach. 22 January; Tom McFeely, Contributing Editor. National Catholic Register (National Circulation). North Haven, Connecticut.
- 2008 Interview, Science of direct reprogramming. 30 January; Jim Schwarz. KFYO radio. St. Louis, MO.
- 2008 Interview. Primate cloning and Induced pluripotent stem cells. 19 February; Ted Katauskas, Editor-at-Large, Portland Monthly. Portland, OR.
- 2008 Interview. Pluripotent stem cells and infertility treatments. Jane Bosveld, Contributing Editor, Discover Magazine. New York, NY.
- 2008 Interview. Trends in Embryonic stem cell research. Anna Persky, Contributing Journalist, Washington Lawyer. Washington, DC.
- 2008 Interview. Westchester inaugural White Paper. Karna Swanson Lozoya, Editor. ZENIT news agency, (International circulation). Rome Italy.
- 2008 Interview. Westchester inaugural White paper. Alton J. Pelowski, Managing Editor, Columbia magazine (International circulation). New Haven, CT.
- 2008 Interview. Biological issues raised by Congregation for the Doctrine of the Faith Dignitas Personae. 10 December; Ann Rodgers, Pittsburgh Post-Gazette.

- 2008 Interview. Biological issues raised by Congregation for the Doctrine of the Faith Instruction Dignitas Personae. 10 December; Rob Stein, The Washington Post.
- 2009 Interview. Uso clínico de célula iPS será difícil, diz cientista. 29 January; Herton Escobar, O Estado de S. Paulo. São Paulo, Brazil.
- 2009 Interview. Scientific Community Differs About Stem Cells. 12 March; Michael P. Tremoglie. The Philadelphia Bulletin. Philadelphia, PA.
- 2009 Interview. When does life begin? 15 June; Sue Ellen Browder. The National Catholic Register (National Circulation). North Haven, CT.
- 2009 Interview. Chinese stem cell breakthrough. Joan Desmond. December 13-19, 2009. The National Catholic Register (National Circulation). North Haven, CT.
- 2009 Interview. Patient specific model of type-1 diabetes. Nima Reza. Family News and Focus (National Syndicate). Colorado Springs, CO.
- 2010 Interview. Newly approved stem cell lines, Audrey Bright. 12 December, 2010. Family News and Focus Radio (National Syndicate). Colorado Springs, CO.
- 2013 Interview/panel discussion. When does life begin? Huffington Post Live. Josh Zepps. 15 May, 2013. New York, NY.
- 2013 Interview. "When does life begin?" Through the Wormhole. 5 June 2013. Discovery Channel.
- 2013 Interview. Advances in stem cell research, Christianity today. Bob Smietana. 23 August, 2013. Carol Stream, Illinois.

- 2013 Interview. Controversies over embryology. Prolife Magazine. Brett Attebery. 4 July 2013.
- 2013 Interview. Small survivors: How the disputed science of fetal pain is reshaping abortion law. Eric Schulzke, Deseret News. Published: Monday, 2 September, 2013. Salt Lake City, UT.
- 2014 Interview. Stem cell research, recent developments. Theresa Laurance. Tennessee Register. Nashville, TN. 25 Feb, 2014.
- 2014 Interview. Bioethics and the Pontifical Academy for Life. Marie Mischel. Editor, Inter-mountain Catholic. 3 December, 2014.
- 2015 Interview. Patrick Madrid show. "Is It Ethical to Create Babies From Three DNA Sources? Absolutely,/" Immaculate Heart radio (national syndication). 5 February, 2015
- 2015 Interview. Sheila Liaugminas, A closer look. Relevant Radio. "Fetal pain, the scientific evidence." 5 August 2015.
- 2016 Interview. Janet Morena. The Catholic view for women. EWTN. "Controversies in medicine." 3 March 2016.
- 2016 Interview. Jan Bentz. Catholic News Agency EWTN news. "Biomedical ethics." 4 March 2016.

RESEARCH FUNDING

Pending Grants

- 01/01/18- Transcriptional repression in human
01/30/22 stem cell differentiation.

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National Institutes of Health.

Role: Principal Investigator

Past Grants

1984-1987 National Science Foundation Predoctoral
Research Fellowship

1989-1993 Cell shape changes during Drosophila
morphogenesis
American Cancer Society Postdoctoral
Fellowship
Role: Principal Investigator

1996-1997 Mechanism of neuronal adaptation to
inhibitory proteoglycans Spinal Cord
Research Foundation Postdoctoral
Fellowship
Role: Principal Investigator

1998-2003 5R01NS38138 Adaptation of neurons to
inhibitory extracellular matrix
National Institutes of Health (NINDS)
Total Costs: \$825,778.
Role: Principal Investigator

1998-2001 PID9808009 Regulation of Integrin
expression and neuron adhesion by Bcl-2
Total Costs: \$50,000.
Primary Children's Medical Foundation
Role: Principal Investigator

1999-2001 5FY980726 Integrin Regulation controls
neural crest migration
Total Costs: \$100,000
March of Dimes Research Foundation
Basil O'Connor Young Investigator Award
Role: Principal Investigator

1999 PID9908008 Control of Cell Fate and
Axon Outgrowth in Sensory Neurons
Total Costs: \$33,800

115a

- University of Utah Funding
Incentive Seed Program
Role: Principal Investigator
- 1999 07928 Videomicroscopy apparatus
University of Utah Research
instrumentation Fund
Total Costs: \$80,000
Role: Principal Investigator
- 2001-2004 1FY01-172 Integrin Regulation Controls
Neural Crest Migration
Total Costs: \$243,936
March of Dimes Birth Defects
Foundation (Renewal of MOD Basil
O'Connor Young Investigator Award)
Role: Principal Investigator
- 2002-2005 PID2109100 Integrin-mediated
stimulation of adult neuronal
regeneration
McKnight Endowment Fund for
Neuroscience McKnight Neuroscience
of Brain Disorders Award
Total Costs: \$300,000
Role: Principal Investigator
- 2005-2007 PID2504037 Interaction between Integrins
and molecular inhibitors of regeneration
Direct Costs: \$153,472
Craig H. Neilsen Foundation
Role: Principal Investigator
- 2004-2011 5R01NS048382-05 Specification and
Development of Sensory Neurons
\$1,040,625
National Institutes of Health
Role: Principal Investigator

Grants to Trainees

- 2001-2003 1 T32 HD 07491 “Integrin regulation in adult and embryonic regeneration.” Dr. Michele Lemons, Postdoctoral Fellowship.
Direct Costs: \$72,392
National Institute of Health, Institute of Child Health and Human Development, Developmental Biology training grant.
Role: Mentor
- 2003-2005 “Cell autonomous factors influence regeneration.” Dr. Michele Lemons, Postdoctoral Fellowship.
Paralyzed Veterans of America, Spinal Cord Research Foundation.
Direct Costs: \$100,450.
Role: Mentor
- 2003-2004 International Outstanding Young Investigators Award, Dr. Michele Lemons, Postdoctoral Award.
Paralyzed Veterans of America, Spinal Cord Research Foundation.
Role: Mentor
- 2002-2005 F31 NS43849 “Surface Integrin regulation controls neural crest migration.”
Lauren Strachan, Graduate student, National Institute of Health Predoctoral Fellowship.
Direct Costs: \$74,238.
Role: Mentor
- 2011 Undergraduate Research Opportunities Program “Gene expression profiling of amniotic stem cells.” Jennifer Akiona, Undergraduate
Direct Costs: \$1200
Role: Mentor

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2011-2013 2T32HL007576 “Training in Cardiology”
Colin Maguire, postdoc
Role: Co-mentor

TEACHING RESPONSIBILITIES

Course and Curriculum Development

- 2010-present Phase I: Human embryology content director,
University of Utah, Salt Lake City.
- 2010-present Phase II: Metabolism and Reproduction, Human embryology content director,
University of Utah, Salt Lake City.
- 2011 Phase II: Circulation, Respiration and Regulation, Human embryology content director,
University of Utah, Salt Lake City.

Courses Directed

- 2001-2006 Course Director, “*Research in Progress Seminar*”. (Anat 7720).
University of Utah, Salt Lake City.
- 2001-2003 Co-Director (with Dr. C.-B. Chien), “*Axon guidance*”. (Mbiol 6100).
University of Utah, Salt Lake City.
- 2006 Co-Director (with Dr. A. Moon), “*Cell adhesion and motility*”. (Mbiol 6100).
University of Utah, Salt Lake City.
- 2006-2009 Course Director, “*Human Embryology*,” (Anat 6060). University of Utah School of Medicine, Salt Lake City.
- 2010 Course Director, “*Human embryology and craniofacial development*”.
Independent component of (Orb 133),

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University of Utah School of
Dentistry, Salt Lake City.

Course Lectures

- 1985-1986 Graduate instructor,
Laboratory Instructor,
"Developmental Biology". 30
students, 15 lectures, 15 labs,
University of California, Berkeley.
- 1988 Graduate instructor,
Laboratory Instructor, *"Biology"*.
30 students, 15 lectures, 15 labs,
University of California, Berkeley.
- 1989 Graduate Instructor,
"Integrated Systems Neurobiology".
8 students, 30 lectures,
University of California, Berkeley.
- 1992-1996 Instructor, Discussion Leader,
"Developmental Neurobiology".
30 students, two lectures,
University of Minnesota, Minneapolis.
- 1993-1995 Instructor, Discussion Leader,
"Molecular, Cellular Development".
30 students, two lectures,
University of Minnesota, Minneapolis.
- 1998-Present Instructor, Discussion Leader,
"Developmental Neurobiology,"
(Anat 7750). 10-15 students, 4-6
lectures, 1-2 discussions,
University of Utah, Salt Lake City.
- 1998-2010 Instructor,
"Frontiers in Neuroscience,"
(Neusc 6010),

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- 8-20 students, one lecture,
University of Utah, Salt Lake City.
- 1998-2010 Instructor,
“*Faculty Research in Progress*,”
(Mbiol 6050).
20-30 students, one lecture.
- 1999 Instructor,
“*Cell Biology*,” (Mbiol 6480).
20-30 students, two lectures,
University of Utah, Salt Lake City.
- 1999-2006 Instructor,
“*Human Embryology*,” (Anat 6060).
110-120 students, 4-6 lectures,
University of Utah, Salt Lake City.
- 2001-2006 Course Director,
“*Research in Progress Seminar*,”
(Anat 7720).
20-30 students,
University of Utah, Salt Lake City.
- 2001 Co-Director,
“*Axon Guidance*,” (Mbiol 6100).
Offered 2001, 2003.
8-10 students,
University of Utah, Salt Lake City.
- 2006-2008 Course Director,
“*Human Embryology*,” (Anat 6060).
110-120 students, 10 lectures,
University of Utah, Salt Lake City.
- 2007 Instructor,
“Genetics and Society (Honors 3215).
18 students, one lecture,
University of Utah, Salt Lake City,

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- 2010 Instructor,
“Health Law” (LAW 7360).
30 students, one lecture,
University of Utah, Salt Lake City.
- 2010 Course Director,
*“Human embryology and
craniofacial development*
Independent component (Orb 133) ,
University of Utah, Salt Lake City.
10 Students. 6 lectures.
- 2010-Present Course/Content Director,
“Human Embryology” in Phase I,
Phase II.
University of Utah School of
Medicine, Salt Lake City.
110-120 Students. 11 lectures
- 2013 Instructor/observer
(lecture preparation),
“Dental Neuroanatomy,”
University of Utah School of
Dentistry, Salt Lake City.
10 Students.

Laboratory Teaching

- 1985-1986 Graduate Instructor,
Laboratory Instructor,
“Developmental Biology”.
30 students, 15 lectures, 15 labs,
University of California, Berkeley.
- 1988 Graduate Instructor,
Laboratory Instructor, *“Biology”*.
30 students, 15 lectures, 15 labs,
University of California, Berkeley.

Small Group Teaching

- 2010-2012 Instructor, Integrated Case presentation, Phase I, 80 students, in groups of 10. University of Utah School of Medicine, Salt Lake City.
- 2012 Instructor, Small group facilitator, Phase I. 15 weeks
- 2013 Instructor, Small group facilitator, Phase I. 15 weeks
- 2014-present Instructor, Small group facilitator, Phase II; Skin Muscle Bone and Joint. 7 weeks

Trainees Supervised

- 1997 Undergraduate, Catherine Clark, University of Utah.
- 1998 Graduate Rotation, Wei Guan, Neuroscience Program.
- 1998 Graduate Rotation, Manojkumar Puthenveedu, Neuroscience Program.
- 1998 Graduate Rotation, Jeong-Soo Lee, Molecular Biology Program.
- 1999 Graduate, Wei Guan, Psychiatry resident, University of Louisiana Health Science Center, Shreveport, LA.
- 1999 Graduate Rotation, Viravuth Yin, Molecular Biology Program.
- 1999 Graduate Rotation, Andrea Papier, Molecular Biology Program.
- 1999 Graduate Rotation, Jing Li Cal, Molecular Biology Program.

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- 1999 Graduate Rotation, Anne Luebeke,
Molecular Biology Program.
- 1999 Undergraduate, Jeremy Cox,
University of Utah.
- 2000 Graduate, Lauren Strachan,
NIH Predoctoral Fellowship.
- 2000 Undergraduate, Suman Barua,
University of Utah.
- 2000 Graduate Rotation, Xulei Lui,
Neuroscience Program.
- 2000 Graduate Rotation, Debjani Bhar,
Molecular Biology Program.
- 2001 Postdoctoral Fellow, Michele Lemons,
NIH Postdoctoral Fellowship, Paralyzed
Veterans of America Postdoctoral Fellowship,
Paralyzed Veterans of America International
Outstanding Young Investigators Award,
Assistant Professor (tenure track)
Assumption College, Worcester, MA,
- 2001 Graduate Rotation, Sandhiya
Kalyanasundaram, Neuroscience Program.
- 2001 Graduate Rotation, Nirmalya Roychowdhury,
Neuroscience Program.
- 2001 Graduate Rotation, Deepak Raj,
Molecular Biology Program.
- 2002 Graduate Rotation, Hara Kang,
Molecular Biology Program.
- 2002 Graduate Rotation, Linclon Hunt,
Neuroscience Program,
- 2003 Undergraduate, Luke Marzec,
University of Pennsylvania.
- 2003 Undergraduate, Kevin Woody,
University of Utah.

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- 2004 Undergraduate, Katheryn Cousins,
University of Chicago.
- 2004 Graduate Rotation, Kathy Zukor.
Neuroscience Program.
- 2004 Graduate Rotation, Jared Cassiano,
Molecular Biology Program.
- 2005 Graduate, Kath Zukor.
- 2005 Undergraduate, Benjamin Saliwanchik,
University of Chicago.
- 2005 Graduate Rotation, Michael Abanto.
Neuroscience Program.
- 2007 Graduate Rotation, Gretchen Carr,
Neuroscience Program.
- 2009 Graduate, Erin Cadwalader,
Co-advisor with H. J. Yost.
- 2010 Postdoctoral Fellow, Colin McGuire.
- 2011 Undergraduate fellow, Jennifer Akiona
- 2011 Undergraduate trainee, Flor Pineiro
- 2012 Undergraduate trainee, Emily Means
- 2012 Undergraduate trainee, Annie Marsden

Graduate Student Committees

- 1999-01 Laura Storjohann.
Neurobiology and Anatomy.
- 1999-04 Wei Guan. Neurobiology and Anatomy.
- 2000-01 Roy Smeal, Bioengineering.
- 2000-05 Lauren Strachan.
Neurobiology and Anatomy.
- 2001-04 Jeong-Soo Lee.
Neurobiology and Anatomy.
- 2004-08 Suzanna Gribble.
Neurobiology and Anatomy.

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- 2004-10 Melissa Hardy.
Neurobiology and Anatomy.
- 2005-09 Eon Joo Park. Human Genetics.
- 2006-10 Katherine Zukor.
Neurobiology and Anatomy.
- 2010-14 Lisa Benko, Neurobiology and Anatomy.
- 2011-16 Tony Hsiao, Bioengineering.

**Continuing Medical Education
Lectures/Presentations**

- 9/2002 Conference speaker (National).
Scientific basis of pediatric practice.
University of Utah, Salt Lake City, UT.
- 4/2004 Symposium Speaker (International).
*Integrative Master Class in Anatomy:
The Gastrointestinal System.*
Experimental Biology National Meeting.
Washington, D.C.
- 11/2005 Keynote Speaker (International).
*Suffering and Hope: The ideas behind
the medical specialty of palliative care.*
The University of Texas MD Anderson
Cancer Center and the University of St.
Thomas, Houston TX.
- 9/2006 Congress speaker (International).
*Stem cells: What future for therapy?
Scientific aspects and bioethical problems.*
Azienda Ospedaliera Santa Maria della
Misericordia, FIAMC (Fédération Interna-
tionale des Associations Médicales Catho-
liques) and the Pontifical Academy for Life.
Rome, Italy.

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- 10/2006 Colloquium speaker (National).
The beginning of life: Human embryology.
DeVos Medical Ethics Colloquy. Grand
Valley State University, Spectrum Health
Hospitals, St. Mary's Hospital, Metropoli-
tan Hospital, Calvin College, Aquinas Col-
lege and the Van Andel Research Institute.
Grand Rapids, Michigan.
- 4/2008 Keynote Speaker (National).
The nature of human embryos.
Alice D. and Frederick C. LaBrecque
Lecture In Medical Ethics/Bioethics.
Boston College. Boston, MA.
- 10/2008 Invited speaker (National).
Human embryology and science politics.
Moral Conviction vs. Political Pressure.
Allegheny General Hospital and
Franciscan University of Steubenville.
Steubenville, OH.
- 7/2010 Invited Speaker (National).
Who is human and what is not?
"Beyond Therapy: Exploring Enhancement
and Human Futures."
The Center for Bioethics & Human
Dignity, Deerfield, IL.
- 4/2011 Invited Research In Progress Seminar
(Regional). Amniotic fluid stem cells and
congenital heart defects.
Department of Pediatrics.
University of Utah, Salt Lake City, UT.
- 9/2011 Plenary Speaker.
Human reproductive embryology.
Biologic Basis of Pediatric disease.
Department of Pediatrics.
Salt Lake City, UT.

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- 2/2012 Plenary Speaker. Stem cell research.
Natl. AAPLOG meeting. Washington, D.C.
- 7/2012 Plenary Speaker.
Early human development.
American Academy of Fertility Care
Professionals. Salt Lake City, UT.
- 1/2014 Keynote Speaker.
Scientific evidence for when life begins.
Catholic Medical Association. St. Paul, MN.
- 9/2014 Keynote Speaker.
Stem cells and medicine.
Catholic Medical Association and Diocese
of Salt Lake. Salt Lake City, UT.
- 4/2015 Invited Lecturer and Session Co-chair.
Healing or Human Enhancement?
The Future of Medicine.
Maryland Nurses Association,
Providence Hospital and the John Paul II
Pontifical Institute. Washington, DC.
- 6/2015 Plenary Speaker,
The Center for Bioethics & Human
Dignity's 22nd annual summer conference,
"Science, Research, and the Limits of
Bioethics." Deerfield, IL.
- 11/2016 Plenary Speaker,
3rd International Conference on
Responsible Stem Cell Research,
Pontifical Academy for Life and the
University of Padua, Padua, Italy.

Other Educational Activities

- 1998-Present Molecular Biology Program,
Admissions Interview.

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- 1998-Present Neuroscience Program,
Admissions Interview.
- 1998 Gregory Yochum. Ontological
Sciences, Qualifying Examinations.
- 1998 Meredith Lee. Neurobiology and
Anatomy, Qualifying Examinations.
- 1998 James Kemmerle. Human Genetics,
Qualifying Examinations.
- 2000 Wei Guan. Neurobiology and
Anatomy, Qualifying Examinations.
- 2001 Jeong-Soo Lee. Neurobiology and
Anatomy, Qualifying Examinations.
- 2004 Melissa Hardy, Neurobiology and
Anatomy, Qualifying Examinations.
- 2004 Suzanne Gribble. Neurobiology and
Anatomy, Qualifying Examinations.
- 2005 Eon Joo Park. Human Genetics,
Qualifying Examinations.
- 2006 Katherine Zukor. Neurobiology and
Anatomy, Qualifying Examinations.
- 2011 Lisa Benko, Neurobiology and
Anatomy, Qualifying Examinations.
- 2012 Tony Hsiao, Bioengineering,
Qualifying Examinations.

SCIENTIFIC ARTICLES (peer reviewed)

1. Condic, M.L., Bentley, D. (1989). Pioneer neuron pathfinding from normal and ectopic locations *in vivo* after removal of the basal lamina. *Neuron* 3, 427-439.

2. Condic, M.L., Bentley, D. (1989). Removal of the basal lamina *in vivo* reveals growth cone-basal lamina adhesive interactions and axonal tension in grasshopper embryos. *J. Neurosci.* 9, 2678-2686.
3. Condic, M.L., Bentley, D. (1989). Pioneer growth cone adhesion *in vivo* to boundary cells and neurons after enzymatic removal of basal lamina in grasshopper embryos. *J. Neurosci.* 9, 2687-2696.
4. Condic, M.L., Lefcort, F., Bentley, D. (1989), Selective recognition *in vitro* between embryonic afferent neurons of grasshopper appendages. *Dev. Biol.* 135, 221-230.
5. Condic, M.L., Fristrom, D., Fristrom, J.W. (1991), Apical cell shape changes during *Drosophila* imaginal leg disc elongation: A novel morphogenetic mechanism. *Development* 111, 23-33.
6. *Fessler, L.I., *Condic, M.L., Nelson, R.C., Fessler, J.H., Fristrom, J.W. (1993). Site specific cleavage of basement membrane collagen IV during *Drosophila* metamorphosis. *Development* 117, 1061-1069. (*The first two authors contributed equally to this work.)
7. Condic, M.L., Letourneau P.C. (1997). Ligand-induced changes in integrin expression regulate neuronal adhesion and neurite outgrowth. *Nature* 389, 852-856.
8. Condic, M.L., Snow, D.M., Letourneau, P.C. (1999). Embryonic neurons adapt to the Inhibitory proteoglycan aggrecan by increasing integrin expression. *J. Neurosci.* 19, 10036- 43.
9. Schroeder, K.E., Condic, M.L., Eisenberg, L.M., Yost, H.J. (1999). Spatially regulated translation in embryos: Asymmetric expression of maternal Wnt-

- 11 along the dorsal-ventral axis in *Xenopus*. *Dev. Biol.* 214, 288-297.
10. Condic, M.L. (2001). Adult neuronal regeneration induced by transgenic integrin expression. *J. Neurosci.* 21, 4782-4788.
 11. Guan, W. Puthenveedu, M., Condic, M.L. (2003). Sensory neuron subtypes have unique substratum preference and receptor gene expression prior to target innervation, *J. Neurosci.* 23, 1781-1791.
 12. Guan, W., Condic, M.L. (2003). Characterization of Netrin-1, Neogenin and UNC-5 expression during chick dorsal root ganglion development. *Mech. Dev.* 3, 367-371.
 13. Strachan, L., Condic, M.L. (2003). Neural crest motility and integrin regulation are distinct in cranial and trunk populations. *Dev. Biol.* 259, 288-302.
 14. Strachan, L. R., Condic, M.L. (2004). Cranial neural crest recycle surface integrins in a substratum-dependent manner to promote rapid motility. *J. Cell Biology* 167, 545-54.
Commentary on manuscript:
 -LeBrasseur, N. (2004) Speed from recycling. *J. Cell Biology.* 167, 395.
 -*Faculty of 1000*: evaluations for Strachan LR & Condic M.L. *J Cell Bid* 2004 Nov 8 167 (3) :545-54
<http://www.f1000biology.com/article/155202271evaluation>.
 15. Lemons, M.L., Barua, S. Abanto, Halfter, W., Condic, M.L. (2005). Adaptation of sensory neurons to hyaluronin and decorin proteoglycans. *J. Neuroscience* 25, 4964-73.

16. Lemons, M.L., Condic, M.L. (2006). Combined integrin activation and intracellular cAMP cause Rho GTPase dependent growth cone collapse on laminin-1. *Exp. Neurol.* 202, 324- 335.
17. Strachan, L. R., Condic, M.L. (2008). (*Epub Nov 1, 2007*). Neural crest motility on fibronectin is regulated by integrin activation. *Exp. Cell Res.* 314, 441-452.
18. Condic, M.L. (2008). Alternative sources of pluripotent stem cells; altered nuclear transfer. *Cell Proliferation*, 41 (*Suppl. 1*), 7-19.
19. Guan, W. Wang, G., Scott, S.A., Condic, M.L. (2008), (*Epub Dec 4, 2007*). Shh regulates cell number and neuronal identity in dorsal root ganglia. *Dev. Biol.* 314, 317-28.
20. Cadwalader, E. L., Condic, M.L., Yost, H.J. (2012). 2-O-Sulfotransferase Controls Wnt Signaling to Regulate Cell Cycle and Adhesion in Zebrafish Epiboly. *Development* 139; 1296-1305.
21. Maguire, C.T., Demarest, B, Hill, J, Brothman, A.R., Yost, H.J, Condic, M.L. (2013). Genome-wide RNA sequencing reveals the unique stem cell identity of human amniocytes. *PlosOne* 8, e53372.
22. Lemons, M.L, Abanto, M.L, Dambrouskas, N., Clements, C.C., DeLoughery, Z., Garozzo, J., Condic, M.L. (2013). Integrins and cAMP mediate netrin-induced growth cone collapse. *Brain Research.* Nov 6;1537:46-58.

SCIENTIFIC REVIEW ARTICLES (peer reviewed)

1. Letourneau, P.C., Condic, M.L., Snow, D.M. (1992). Extracellular matrix and neurite outgrowth. *Curr. Op. Genetics and Dev.* 4, 625-634.

2. Letourneau, P.C., Condic, M.L., Snow, D.M. (1994). interactions of neurons with the extracellular matrix. *J. Neurosci.* *14*, 915-928.
3. Condic, M.L., Lemons, M.L. (2002). Extracellular matrix in spinal cord regeneration: getting beyond attraction and inhibition. *NeuroReport.* *13*, A37-A48.
4. Condic, M.L. (2002). Neural Development: Axon regeneration derailed by dendrites. *Current Biology* *12*, R455-R457.
5. Lemons, M. L., Condic, M.L. (2008). (*Epub 14 Jun, 2007*). Integrin signaling is integral to regeneration, *Experimental Neurology* *209*, 343-52.
6. Rao, M., Condic M.L. (2008). Alternative sources of pluripotent stem cells: Scientific solutions to an ethical dilemma. *Stem Cells and Development* *17*, 1-10.
7. Condic, M.L., Rao, M. (2008). (*Epub Jul 31, 2008*) Regulatory issues for personalized pluripotent cells. *Stem Cells* *26*, 2753 - 2758.
8. Rao, M., Condic M.L. (2009). Musings on genome medicine: is there hope for ethical and safe stem cell therapeutics? *Genome Medicine* *1*, 70.
9. Condic, M.L., Rao, M. (2010). Alternative sources of pluripotent stem cells: Scientific solutions revisited, *Stem Cells and Development* *19*,1121-9.
10. Condic, M.L. (2014). Totipotency: What it is and what it is not. *Stem Cells and Development* *23*, 796-812.

11. Condic, M.L. (2016). The role of maternal-effect genes in mammalian development: Are mammalian embryos really an exception? *Stem Cell Reviews and Reports*. Jun;12(3):276-84. PMID: 26892267

BIOETHICS AND SCIENCE POLICY ARTICLES
(editorially and/or peer reviewed)

1. Condic, M.L. (2002). The basics about stem cells. *First Things* 119, 30-34. [Reprinted in: *The Human Life Review* (2002) XXVII1,119-126].
2. Condic, M.L. (2002). Stem cells and false hopes. *First Things* 125, 21-22.
3. Condic, M.L., Condic, S.B. (2003). The appropriate limits of science in the formation of public policy. *Notre Dame Journal of Law, Ethics and Public Policy* 25, 157-179.
4. Condic, M.L. (2003). Life: Defining the Beginning by the End. *First Things* 133, 50-54. [Reprinted in: *The Human Life Review* (2003) XXIX, 22-29].
5. Condic, M.L. (2004). The science of wishful thinking. Review: Whose view of life? by Jane Maienschein. *First Things* 145, 69-74.
6. Condic, M.L., Condic, S. B., Hurlbut, W.B. (2005). Producing non-embryonic organisms for stem cells. *National Cath. Bioethics Quart.* 5, 13-15
7. Condic, M.L., Condic, S. B. (2005). Defining organisms by organization. *National Cath. Bioethics Quart.* 5, 331-53.
8. Condic, M.L. (2005). Stem cells and babies. *First Things* 155, 12-13.
9. Arkes H., Austriaco N.P., Berg T., Brugger E.C., Cameron N.M., Capizzi J., Condic, M.L., Condic S.B., FitzGerald K.T., Flannery K., Furton E.J.,

- George R.P., George T., Gomez- Lobo A., Grisez G., Grompe M., Haas J.M., Hamerton-Kelly R., Harvey J.C., Hoehner P.J., Hurlbut W.B., Kilner J.F., Lee P., May W.E., Miranda G., Mitchell C.B., Myers J.J., Oleson C., Pacholczyk T., Ryan P.F., Saunders W.I., Stevens D., Swetland S.W., Whelan M.E., Williams T. (2005). Production of pluripotent stem cells by oocyte-assisted reprogramming: joint statement with signatories. *Natl Cathol Bioeth Quart.* 5, 579-83.
10. Burke WJ, Pullicino P, Richard EJ, Condic M.L. (2005). Stemming the tide of cloning. *First Things* 158, 6-9.
 11. Condic, M.L. (2007). What we know about embryonic stem cells. *First Things* 169, 2529.
 12. Cameron, N, Condic, M.L., Kelly, J., Ruse, A. (2007). Missouri amendment. *Natl Cathol Bioeth Quart.* 7, 9-11.
 13. Condic, M.L. (2007). The beginning of life: a perspective from science, *DeVos Medical Ethics Colloquy*. Van Andel Press. Grand Rapids, MI.
 14. Condic, M.L., Furton, E..J. (2007). Harvesting Embryonic Stem Cells from Deceased Human Embryos. *Natl Cathol Bioeth Quart.* 7, 507-525.
 15. Condic, M.L. (2008). Getting Stem Cells Right. *First Things* 180, 10-12.
 16. Anderson, R.T., Condic, M.L. (2008). Professor Lee Silver's Vast Scientific Conspiracy. *First Things*, on the square p. 946 (<http://www.firstthings.com/onthesquare/?p=946>).
 17. Berg, T.V., Condic, M.L. (2008). Emerging Biotechnologies, the Defense of Embryonic Human Life,

and Altered Nuclear Transfer. *Linacre Quarterly* 75, 269-291.

18. Condic, M.L. (2008). When does human life begin? A scientific perspective. *Westchester Institute White Paper 1*, 1-18. Westchester Institute for Ethics & the Human Person, Thornwood, NY. (available at: <http://www.bdfund.org/whitepapers>). [Reprinted in: *Natl Cathol Bioeth Quart.* 9, 127-208.]
19. Condic, M.L., Lee, P., George, R.P. (2009). Ontological and Ethical Implications of Direct Nuclear Reprogramming. *Kennedy Institute Ethics Journal* 19, 33-40.
20. Condic, M.L., Lee, P. and George, R.P. (2009). The Grail Searchers, *National Review* (online), July 20, 2009. (Available at: <http://article.nationalreview.com/?q=ZDFkM2ZiOGEwOWVky2Y2ZTIhNDk2MjdkMWQ3NzZhNmY>)
21. Condic, M.L. (2009). Stem cells: reviewing the science and the ethics. *Ethics and Medicine* 34, 1-3.
22. Condic, M.L., Lee, P., George, R.P. (2009). Rejoinder to Magill and Neaves on Stem Cells vs. Organisms. *Kennedy Institute Ethics Journal* 19, 33-40.
23. Alvaré H., Anderson, R.T., Bottum, J., Bradley, G.V., Cohen, E., Condic, M.L., Curlin, F.A., Elshtain, J.B., Franck, M.J., George, R.P., Glendon, M.A., Hurlbut, W.B., Landry, D.W., Lee, P., Levin, Y., Novak, M., Ponnuru, R., Snead, C., Stoner, J.R., Tollefsen, C., Watson, M.J. (2010). *Embryos in the Age of Obama*. The First Annual Neuhaus Colloquium calls for a permanent reversal of a misguided stem-cell policy. *First Things* 206, 57-62.

24. Condic, M.L. (2012). Science and the politics of personhood. *Public Discourse* (available: <http://www.thepublicdiscourse.com/2012/12/7300/>).
25. Condic, M.L. (2013). The Science and Politics of Cloning: What the News Was All About. *Charlotte Lozier Institute*. On point, 4 June 2013. <http://www.lozierinstitute.org/cloning/>
26. Condic, M.L. (2013). A scientific view of when life begins. Educational series material. Vol.(1). *Human Life International*. Front Royal, VA.
27. Condic, M.L., Prentice, D. (2013). Stage-Specific Embryonic Antigen-1 (SSEA-1): What it is and what it is not. 4 Sep, 2013. *LifeNews* (available: <http://www.lifenews.com/2013/09/04/science-101-induced-pluripotent-stem-cells-are-not-human-embryos/>),
28. Condic, M.L., Flannery, K. (2014). A contemporary Aristotelian embryology. *Nova and Vetera*, English Edition, Vol. 12, No. 2: 495-508.
29. Condic, M.L. (2014). When does human life begin? The scientific evidence and terminology revisited. *Journal of Law and Public Policy*. Vol. 8 No. 1; 44-81.
30. Condic, M.L. (2014). Human embryology: science politics versus science facts. *Quaestiones Disputatae*. Vol. 5 No. 2: 47-60.
31. Condic, M.L. (2014). Confusions about Totipotency: Stem Cells are not embryos. *Public Discourse* (available: <http://www.thepublicdiscourse.com/2014/03/12361/>).
32. Condic, M.L. (2014). We Are Not Just Our DNA: The Ethical Dangers of Three-Parent Embryos. *Public Discourse* (available: <http://www.thepublicdiscourse.com/2014/03/12897/>).

33. Condic, M.L. (2016). Virtues beyond a utilitarian approach in biomedical research. *Liberia Editrice Vaticana*. Rome, Italy. (in press).
Commentary on Manuscript:
 Banfi, G. (2016). Quante virtù necessarie a medicina e scienza. *Avvenire*, p. A16. Rome, Italy. 10 March, 2016.
34. Condic, M.L. (2016). Determination of Death: A scientific perspective on biological integration. *Journal of Medicine and Philosophy*, Jun;41(3):257-78. PMID: 27075193 35.
35. Moschella, M. and Condic, M.L. (2016) Symposium on the Definition of Death: Summary Statement. *Journal of Medicine and Philosophy*. Jun;41(3):351-61. PMID: 27102243.

BOOKS

1. Condic, S.B., Condic, M.L. (2014). *Embryos and Us*. Catholic University of America Press. Washington, D.C. (in review).
2. Condic, M.L. The making of man; what modern embryology tells us about the nature of human individuality. (in preparation).

BOOK CHAPTERS

1. Condic, M.L. (2003). Chapter 24: The basics about stem cells. *The Stem Cell Controversy: Debating the Issues*. Eds. M. Ruse, C. A. Pynes. Prometheus Books, Amherst, NY, USA.
2. Condic, M.L. (2005). Chapter 12: Regeneration and repair. *Developmental Neurobiology, 4th Edition*. Eds. M, S. Rao and M. Jacobson. Plenum Press, New York, NY.

3. Condic, M.L. (2011). Chapter 3: Pre-implantation stages of human development: the biological and moral status of early embryos. *Is this cell a human being?: Exploring the status of embryos, stem cells and human-animal hybrids*. Eds. Antoine Suarez, Joachim Huarte. *Social Trends Institute Monograph Series*. Barcelona, Spain. Springer, New York, NY.
4. Condic, M.L. (2011). Chapter 10: A biological definition of the human embryo. *A Critical Analysis of Pro-Choice Arguments: Persons, Moral Worth, and Embryos*. Ed. Stephen Napier. *Philosophy and Medicine Series*, Springer, New York, NY.

OTHER (Commentary/Letters/Editorials/
Case Reports/Video/Film)

Legal Briefs (Science Policy)

1. George, R., Condic, M.L. (2008). "Cures Without Cloning" Brief *AMICI CURIAE*. *Missouri Court of Appeals Western District*. Case. No, WD 69376.
2. Condic, M.L. (2010). "Feminists choosing life of New York v. Empire state stem cell board," Brief *AMICUS CURIAE*. *State of New York Supreme Court: County of Albany*. index No. 8594/2009.
3. Condic, M.L. (2010). "James L. Sherley, et al. v. Kathleen Sebelius," Brief *AMICUS CURIAE*. *United States Court of Appeals for the District of Columbia Circuit*. No. 10- 5287.
4. Condic, M.L. (2011). "Planned Parenthood of Indiana v. Commissioner." Brief, *AMICUS CURIAE*. *United States District Court, Southern District of Indiana*. No. 1:11-cv-630- TWP-TAB.

5. Condic, M.L. (2012). “Personhood Oklahoma v. Brittany Mays Barber et al.” Affidavit, Appendix A, Brief, *AMICUS CURIAE*, AAPLOG, *Supreme Court of the United States*. NO. 12-145.
6. Condic, M.L. (2012). “Grettel Artavia Murillo Y Otros v. Costa Rica.” Affidavit. *Corte Interamericana de Derechos Humanos*. CASO 12361.
7. Berg, T.V., Capretta, J. C., Condic, M.L. (2012). “Advance notice of proposed rulemaking (“ANPRM”), 77 Fed. Reg. 16501 (Mar. 21, 2012), File Code No. CMS—I19968—I1ANPRM; relative to the underlying Certain Preventive Services under the Affordable Care Act (“Mandate”), finalized at 77 Fed. Reg. 8725 (Feb. 15, 2012).” Commentary. *Department of Health and Human Service*.
8. Condic, M.L. (2013). “Developmental biology of pain perception.” Testimony before the *United States House of Representatives, Committee on the Judiciary, Subcommittee on the Constitution and Civil Justice*, H.R. 1797, the “District of Columbia Pain-Capable Unborn Child Protection Act”, Thursday, May 23, 2013. (Available at: http://judiciary.house.gov/_files/hearings/113th/05232013/Condic%2005232013.pdf).
9. Condic, M.L. (2013). “Eleanor McCullen et al. v. Martha A. Coakley, Attorney General for the Commonwealth of Massachusetts, et al. Brief, *AMICUS CURIAE*. *Supreme Court of the United States*. No. 12-1168.
10. Condic, M.L. (2014), “Her Majesty the Queen versus Mary Wagner.” *Ontario Court of Justice*. CE55312902/CLT3957466.

11. Condic, M.L. (2015). Bioethics Defense Fund Memorandum to the House of Lords (UK), "Mitochondrial Donation: Serious Concerns for Science, Safety and Ethics." (Available at: <http://bdfund.org/wordpressIwp-content/uploads/2015/02/3Parent-CondicWhitePaper.pdf>)

Commentary

1. Condic, M.L. (2001). Stem cell facts. *Salt Lake Tribune*. 15 August, 2001.
2. Condic, M.L. (2006). Sliding Down the Slope: Where Kinsley's stem-cell illogic will take us. *National Review Online*. 20 July, 2006 (<http://article.nationalreview.com>) [Reprinted in: *The Human Life Review* (2006) XXXI1,145-146]
3. Condic, M.L., Grompe, M. (2007). Stem-cell breakthrough. *The Wall Street Journal* November 23, 2007, pg. A13. (available online at: <http://online.wsj.com/article/SB119577446016301525.html>)
4. Condic, M.L. (2007). Brave New Future; working together with stem cells. *Invited contribution: National Review Online symposium*. 21 November, 2007 (<http://www.nationalreview.com/article/222904/brave-new-future-nro-symposium>)
5. Condic, M.L. (2007). Unlikely stem cell therapies. *Nature Neurosci.* 10, 803.
6. Condic, M.L. (2007). Ethical Research. *Omaha World-Herald*. December 17, 2007.
7. Scolding, N., Chopp, M., Franz, W.M., Alan Mackay-Sim, A., Martin, T. J., Rietze, R., McGonagle, D., Eckehard Strauer, B., Gianni Angelini, G., Barker, R., Condic, M.L., Ursula Just, U., Karussis, D., Mazzini, L., Peduzzi-Nelson, J., Lima, C., (2008).

Stem-cell therapy is no miracle cure. *The Times (London)*. 16 May, 2008.

8. Condic, M.L. (2009). Does Research Really Need Human Embryos and Cloning? *The Daily Beast*. (<http://www.thedailybeast.com/articles/2009/04/16/does-research-really-need-human-embrvos-and-cloning.html>)
9. Condic, M.L. (2015) CRISPR/Cas9 genome editing; with power comes responsibility. *Ethica Politica*. (available at: <https://ethlkapolitika.org/>).
10. Condic, M.L. (2015). The sky is not going to fall. *National Review Online*. 30 July, 2015. (<http://www.nationalreview.com/article/42178/planned-parenthood-womens-health>).

PENDING PUBLICATIONS

1. Cadwalader, E.L., Condic, M.L., Yost, H.J. (2014). 2-O-Sulfotransferase regulates FGF signaling and cytoskeleton organization during epiboly in zebrafish. (*in preparation*).
2. Maguire, C.T., Yost, H.J., Condic, M.L. (2014). Differentiation of human amniocytes into functional cardiomyocytes. (*in preparation*).
3. Abanto, M.L., Dambrouskas, N., Saliwanchik, B, Condic, M.L. (2014). Semaphorin-induced growth cone collapse can be blocked by Integrin activation. (*in preparation*).
4. Condic, M.L. (2014). Determination of Death; A scientific perspective. *Journal of Philosophy and Medicine* (*in preparation*).

ABSTRACTS

1. Lefcort, F., Condic, M.L., Bentley, D. (1986). Recognition between grasshopper embryonic afferent neurons *in vitro*, *Soc. Neurosci.* 12, 196.
2. Condic, M.L., Bentley, D. (1986). Effects of proteolytic, glycolytic and basal lamina directed enzymes on pathfinding by grasshopper pioneer neurons. *Soc. Neurosci.* 12, 195.
3. Condic, M.L., Bentley, D. (1988). Effects of enzymatic removal of the basal lamina on pioneer neurons in grasshopper embryos. *Soc. Neurosci.* 14, 451.
4. Condic, M.L. (1989). Selective aggregation of dissociated afferent grasshopper neurons. *Soc. Neurosci.* 15, 649.
5. Condic, M.L., Fristrom, D., Fristrom, J.W. (1990). A novel mechanism of epithelial morphogenesis in *Drosophila*. *Society for Developmental Biology.* 49, 44.
6. Duerr, J.S., Condic, M.L. (1990). Pioneer neuron guidance cues in grasshopper limb buds. *Soc. Neurosci.* 16, 810.
7. Fessler, L. 1., Garrison, K., Nelson, R. E., Yuhasz, M. P., Gullberb, D., Takagi, Y., Condic, M.L., Fristrom, J.W., Fessler, J.H. (1992). Building and remodeling the *Drosophila* extracellular matrix. *Keystone Symposium: Extracellular Matrix in Development.*
8. Condic, M.L., Snow, D., Letourneau, P.C. (1993). Regulation of laminin receptors by sensory neurons in response to chondroitin sulfate proteoglycan. *Soc. Neurosci.* 19, 436.

9. Condic, M.L., Letourneau, P.C. (1995). Posttranscriptional regulation of laminin receptors in sensory neurons is determined by ligand concentration. *Soc. Neurosci.* 21, 1021.
10. Condic, M.L., Snow, D.M. (1997). Increased laminin receptor expression in response to chondroitin sulfate proteoglycan affects neuronal cell adhesion and axon outgrowth. *Soc. Neurosci.* 23, 31.
11. Condic, M.L. (1998). Adult neurons lose the ability to adapt to low laminin substrata. *Soc. Neurosci.* 24, 1767.
12. Guan, W., Condic, M.L. (1999). Axon outgrowth from early chick dorsal root ganglia (DRG) is independent of neurotrophin-3 (NT3). *Soc. Neurosci.* 25, 1271.
13. Strachan, L., Condic, M.L. (2000). Differences in integrin expression contribute to distinct patterns of migration in cranial and trunk neural crest. *Soc. Neurosci.* 26, 58.
14. Strachan, L., Condic, M.L. (2001). Surface integrin regulation contributes to neural crest migration. *Keystone Symposium: Cell Migration and Invasion D3. Abst. 346*, p. 84.
15. Lemons, M.L., Condic, M.L. (2001). Cytoplasmic cAMP levels influence neurite outgrowth on growth-influential CNS proteins. *Soc. Neurosci.* 27, 794,12.
16. Guan, W. Puthenveedu, M., Condic, M.L. (2001). Sensory neuron subtypes have unique substratum preference and receptor gene expression prior to target innervation. *Soc. Neurosci.* 27,136.18.

17. Strachan, L., Condic, M.L. (2002). The role of Integrin recycling in neural crest cell motility. *Keystone Symposium: Development of the Spinal Cord and Neural Crest X4. Abst. 411*, p.177.
18. Guan, W., Condic, M.L. (2002). The differential expression of netrin 1-neogenin/unc5 signals affects axon fasciculation of different subtypes of DRG neurons. *Soc. Neurosci.* 28, 528.3.
19. Lemons, M.L., Condic, M.L. (2002), Effects of Cyclic AMP upon Neurite Outgrowth and Integrins. *Soc. Neurosci.* 28,729.13.
20. Strachan, L., Condic, M.L. (2003) Mechanisms of regulating motility and adhesion in neural crest. *Keystone Symposium: Cell migration and invasion B2.* p. 338.
21. Strachan, L.R., Condic, M.L. (2003). Cranial neural crest motility is promoted by substratum-dependent integrin recycling. *Am. Soc. Cell Biol.* 1824: B293.
22. Lemons, M.L., Condic, M.L. (2003) Intracellular cAMP and integrin activation determine growth cone response to laminin-1. *Soc. Devel. Biol.* 17, 24.
23. Strachan, L.R., Condic, M.L. (2003) integrin recycling is required for proper cranial neural crest migration. *Soc. Devel. Biol.* 15, 22.
24. Guan, W., Condic, M.L. (2003) Shh induce the patterning of ventral cell fates in chick dorsal root ganglia. *Soc. Devel. Biol.* 1, 35.
25. Strachan, L.R., Condic, M.L. (2003) Cranial Neural Crest Motility is Promoted by Substratum-dependent Integrin Recycling. *Am. Soc. Cell Biol.* 1824: B293.

26. Lemons, M.L., Condic, M.L. (2004). Growth cone response to laminin is reversed by a combination of integrin activation and cAMP. *Soc. Neurosci.* 30, 23.14
27. Lemons, M.L., Condic, M.L. (2005). Integrins, cAMP and netrin-1 interact and influence growth cone behavior. *Soc. Neurosci.* 31.
28. Lemons, M.L., Abanto, M., Dambrauskas, N., Duke, V., Clements, C., Condic, M.L. (2008). Netrin-1 induced growth cone collapse is mediated by integrins. *Soc. Neurosci.* 33.
29. Lemons, M.L., Dambrauskas, N., Abanto, M., Clements, C., Condic, M.L., (2010). An interaction between netrin-1 and integrin receptors in growth cones. *Cold Spring Harbor.* 138.
30. Maguire, C.T., Demarest, D., Akiona, J., Hill, J., Palmer, J. Brothman, A.R., Yost, H.J., Condic, M.L. (2012). Human amniocytes contain subpopulations of stem cells that have a repressed cardiogenic status. *Weinstein Cardiovascular Conference.*
31. Maguire, C.T., Demarest, D., Hill, J., Brothman, A.R., Yost, H.J., Condic, M.L. (2013). Human amniocytes express a distinct multilineage phenotype that has a repressed cardiogenic status. *Southwest Developmental Biology.*
32. Maguire, C.T. Jackson, J., Demarest, B., Hill, J., Brothman, A.R., Yost, H. J., Condic, M.L. (2013). Minicircle DNA vectors to reprogram human amniocytes into cardiomyocytes. *Keystone Symposium: Cardiac Remodeling, Signaling, Matrix and Heart Function (D4).*

33. Maguire, C.T., Gorski, B., Demarest, B., Jackson, J., Sunderland, R., Hill, J., Yost, H.J., Condic, M.L. (2014). Reprogramming transcriptionally repressed human amniocytes into cardiomyocytes by manipulating DNA demethylation. *Southwest Developmental Biology*.
34. Maguire, C.T., Demarest, B., Jackson, J., Sunderland, R., Jou, C.J., Tristani-Firouzi, M., Yost, H.J., Condic, M.L. (2015). Whole-genome analyses reveal developmental regulators of cardiomyocyte subtype differentiation in human amniocytes. *Keystone Symposium: Cardiac Remodeling, Signaling, Matrix and Heart Function (D4)*.

ORAL PRESENTATIONS

Symposia and Conferences: Keynote or Plenary Presentations

International

- 3/2005 Plenary Speaker: *Global state of stem cells and cloning in science, ethics and law* Regina Apostolorum Pontifical University, Rome, Italy.
- 11/2005 Keynote Speaker. *Suffering and Hope: The ideas behind the medical specialty of palliative care*. The University of Texas MD Anderson Cancer Center and the University of St, Thomas, Houston TX. (CME)
- 9/2006 Plenary speaker. *1st International Conference on Responsible Stem Cell Research Stem cells: What future for therapy? Scientific aspects and bioethical problems*. Azienda Ospedaliera Santa Maria della Misericordia, FIAMC (Federation internationale des Associations Médi-

cales Catholiques) and the Pontifical Academy for Life, Rome, Italy. (CME)

- 1/2009 Plenary Speaker, Scientific criteria for the organismal status of the embryo. *Focus on The Embryo*. Social Trends Institute, Barcelona, Spain.
- 2/2011 Plenary Speaker, *Embryonic stem cell research*. NCBC biannual workshop on Bioethics. Dallas, Texas.
- 9/2013 Invited Debate participant. “The acquisition of human rights.” Aggiornamento Institute and Colorado State University. Fort Collins, CO.
- 10/2013 Plenary Speaker, “*Stem cell research and ethics*.” Council of the European Union conference, Human stem cell research, therapeutic applicability, ethical and legal issues of stem cell technologies in the EU, Kaunas, Lithuania.
- 11/2013 Plenary Speaker, “*When does life begin?*” Human Life International’s 19th Asia-Pacific Congress. Kota Kinabalu, Malaysia.
- 11/2013 Plenary Speaker, “*Stem cell research and ethics*.” Human Life International’s 19th Asia-Pacific Congress. Kota Kinabalu, Malaysia.
- 6/2014 Plenary Speaker, “Determination of death: A scientific perspective.” Catholic University-Bioethics Defense Fund 1st Annual Conference. Washington, DC.
- 4/2015 Plenary Speaker and Session Co-chair. *Healing or Human Enhancement? The Future of Medicine*. Maryland Nurses Association,

- Providence Hospital and the John Paul II Pontifical Institute. Washington, DC. (CME)
- 6/2015 Plenary Speaker, The Center for Bioethics & Human Dignity's 22nd annual summer conference, "Science, Research, and the Limits of Bioethics." Deerfield, IL. (CME)
- 3/2016 Plenary Speaker, "Virtues beyond the utilitarian approach in biomedical research." in *The role of virtues in the ethics of life*. Pontifical Academy for Life. Rome, Italy.
- 9/2016 Plenary Speaker, "Twinning and Individuality," Science and Religion conference, Fellowship of Catholic Scholars. Washington, DC.
- 11/2016 Plenary Speaker, 3rd International Conference on Responsible Stem Cell Research, Pontifical Academy for Life and the University of Padua, Padua, Italy. (CME)
- 2/2017 Plenary Speaker, "Biotechnology and human life," National Catholic Bioethics Center Bishop's Workshop. Dallas, TX.

National

- 9/2002 Plenary speaker. *Scientific basis of pediatric practice*, University of Utah, Salt Lake City, UT. (CME)
- 3/2003 Plenary speaker. *Bioethics*. Notre Dame Law School, Thomas J. White Center on Law and Government. South Bend, IN.
- 6/2004 Plenary speaker. *Integrins and cAMP in neuronal regeneration*. McKnight Conference on Neuroscience. Aspen Institute, Aspen Meadows, CO.

- 4/2005 Plenary speaker. *Altered nuclear transfer*. Westchester Institute Scholars Forum. Washington, DC.
- 6/2005 Plenary speaker. *Human embryonic stem cell research*. Center for Ethics in Science and Technology, University of San Diego. San Diego, CA.
- 8/2005 Plenary speaker. *Stem cells: the state of the science*. United States Conference of Catholic Bishops, National Conference of diocesan pro-life coordinators annual meeting. Phoenix, AZ.
- 9/2005 Plenary speaker. *Science of stem cells and embryology*. United States Conference of Catholic Bishops, Committee on Science and Human Values. Washington, D.C.
- 3/2006 Plenary speaker. *On the human embryo*. Westchester Institute Scholars Forum. Washington, DC.
- 10/2006 Plenary speaker. *The beginning of life: Human embryology*. DeVos Medical Ethics Colloquy, Grand Valley State University, Spectrum Health Hospitals, St. Mary's Hospital, Metropolitan Hospital, Calvin College, Aquinas College and the Van Andel Research Institute. Grand Rapids, Michigan. (CME)
- 3/2007 Keynote speaker. *Embryonic and non-embryonic stem cell research; the state of the science*. Scientific address to members of the Florida State Legislature. Tallahassee, FL.
- 5/2007 Plenary speaker. *Defining embryos*. Westchester Institute Scholars Forum, Washington, DC.

- 10/2007 Keynote speaker, *Stem cells; opportunities and challenges*. Scientific address to members of the Ohio State Legislature. Columbus, OH.
- 11/2007 Keynote speaker. *Stem cells and human cloning; state of the science*. Scientific address to members of the Nebraska State Legislature. Lincoln, NE
- 4/2008 Keynote speaker. Alice D. and Frederick C. LaBrecque Lecture in Medical Ethics. *The nature of human embryos*. Boston College. Boston, MA. (CME).
- 4/2008 Plenary speaker. Witherspoon Institute University Colloquium. *The nature of university education and the pursuit of truth in academic science*. Princeton University, Princeton, NJ.
- 4/2008 Plenary speaker. *When Do We Die: Brain Death, Irreversible Circulatory Cessation, and the Debate over the End of Life*. Westchester Institute Scholars Forum. Washington, DC.
- 8/2008 Keynote speaker. *Human Embryology and organismal function*. Newman Seminar Series. Kalamazoo MI.
- 10/2008 Plenary speaker. *Human embryology and science politics*. Moral Conviction vs. Political Pressure. Allegheny General Hospital and Franciscan University of Steubenville. Steubenville, OH. (CME)
- 4/2010 Keynote Speaker. Student Affairs. *When does life begin?* Notre Dame University. South Bend, IN.

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- 7/2010 Plenary Speaker. *Who is human and what is not?* “Beyond Therapy: Exploring Enhancement and Human Futures.” The Center for Bioethics & Human Dignity, Deerfield, IL. (CME)
- 9/2011 Plenary Speaker. *Human reproductive embryology*. Biologic Basis of Pediatric disease. Department of Pediatrics. Salt Lake City, UT. (CME)
- 2/2012 Keynote Speaker. Cuthbert Allen Lecturer. Stem cell research; ethics and science. Belmont Abbey College, Belmont, NC.
- 2/2012 Plenary Speaker. *Human development*. National AAPLOG meeting. (Public) Washington, D.C. (CME)
- 2/2012 Plenary Speaker. *Stem cell research*. National AAPLOG Research meeting. (invitation only) Washington, D.C.
- 6/2012 Plenary Speaker. *Scientific evidence for when life begins*. National UFL Life and Learning XX. J. Reuben Clark Law School, Brigham Young University. Provo, UT.
- 7/2012 Plenary Speaker. *Early human development*. American Academy of Fertility Care Professionals. Salt Lake City, UT. (CME)
- 10/2013 Plenary Speaker. *Human development and human rights*. Journal of Law & Public Policy at the University of St. Thomas. National Symposium. Minneapolis, MN.
- 1/2014 Keynote Speaker. *Scientific evidence for when life begins*. Catholic Medical Association. St. Paul, MN. (CME)

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- 10/2014 Keynote Speaker. Texas A&M medical school. Definition of death. College Station, TX. (CME)
- 10/2014 Keynote Speaker. When life begins. Conference of State Legislators and Aides, Austin, TX.
- 9/2015 Plenary Speaker and Panelist. "A Medical Perspective on Embryo Adoption." LCMS International Center, St. Louis, MO.
- 9/2015 Plenary Speaker. "Fetal Pain". Briefing for Senate Staff, sponsored by the Charlotte Lozier Institute. Washington, DC
- 3/2016 Plenary Speaker, "Mitochondrial disease and early human development" In: The Intellectual Tasks of the New Evangelization 2016: Science and Religion United States Conference of Catholic Bishops, Secretariat of Doctrine. Washington, D.C.
- 6/2016 Plenary Speaker. "integration and the human embryo." University Faculty for Life, National conference, Marquette University, Milwaukee, WI.
- 9/2016 Plenary Speaker, "When human life begins," Northwestern University and Students for Life, Illinois. Evanston, IL.
- 10/2016 Plenary Speaker, "Fetal pain," 20/20 Vision Conference, Archdiocese of Newark and Lifenet. Scotch Plains, NJ.
- 4/2017 Plenary Speaker, "When does life begin: the science." 9th Annual Converging Roads Conference, St. John Paul ii Foundation. Houston TX. (CME)

**Symposia and Conferences:
Invited Presentations**International

- 4/2004 Symposium Speaker. *Integrative Master Class in Anatomy: The Gastrointestinal System*. Experimental Biology National Meeting. Washington, D.C. (CME)
- 10/2004 Panelist, Comparative Law Colloquium: *The Legal Regulation of Stem Cell Research in the United States and the Federal Republic of Germany*. The Catholic University of America. Washington, D.C.
- 3/2006 Symposium speaker. *Axonal Growth in the Complex Environment Surrounding Spinal Cord Injury*. American Society for Neurochemistry National Meeting. Portland, OR.

National

- 7/2002 Invited conference participant. McKnight Conference on Neuroscience. Aspen Institute, Aspen Meadows, CO.
- 6/2005 Invited conference participant. McKnight Conference on Neuroscience. Aspen Institute, Aspen Meadows, CO.
- 11/2007 Invited panelist. *Bioethics panel discussion*. Witherspoon Institute conference. Princeton University, Princeton, NJ.
- 3/2009 Invited speaker. *The Politics of Knowledge; science and technology*. Women's and Gender Studies, University of South Carolina, Columbia, SC.

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- 9/2009 Invited colloquium participant. The Neuhaus Colloquium on Ethics and Public Affairs. *Human life and scientific research*. The Witherspoon Institute, Princeton University. Princeton, NJ.
- 3/2011 Invited Panelist. *Scientific perspective on early embryogenesis*. Student Affairs. Notre Dame University, South Bend, IN.
- 2/2012 Invited President's Roundtable participant. *The use of fetal cell lines In research*. The Catholic University of America. Washington, DC.

Regional/Local

- 10/1998 Symposium speaker. Interdepartmental Neuroscience program symposium, University of Utah. Salt Lake City, UT.
- 8/1999 Symposium speaker. Combined program in Molecular Biology and Biological Chemistry Student Orientation Seminar, University of Utah. Salt Lake City, UT.
- 3/2001 Invited educational lecture, Birth defects registry staff, University of Utah Hospital. General lecture for non-scientific staff on human development and the causes of birth defects. Salt Lake City, UT.
- 5/2001 Invited scientific panelist, "Stem cell research, panel discussion" Women's State Legislative Council of Utah. Salt Lake City, UT.
- 9/2002 Invited educational lecture. *Stem Cells and Human Life*. Newman Center, Salt Lake City, UT.

- 9/2004 Symposium series speaker. *“People need a fairy tale”*; *Stem cells and human life*. Educational Resource Development Council. University of Utah School of Medicine. Salt Lake City, UT.
- 10/2004 Symposium Speaker. *Control of sensory neuron fate*. Neuroscience Program Snowbird Scientific Symposium, Salt Lake City, UT.
- 2/2005 Symposium Speaker. *Growth cone motility and regeneration*, Spinal cord research interest group, The Brain Institute, University of Utah, Salt Lake City, UT.
- 3/2006 Symposium Speaker. *Growth cone motility and regeneration*, The Brain Institute, University of Utah, Salt Lake City, UT.
- 3/2006 Invited educational lecture for spinal cord injured patient population, *Growth Cone Motility and Regeneration*. Spinal Cord forum, Salt Lake City, UT.
- 3/2007 Invited educational lecture for spinal cord injured patient population, *Growth Cone Motility and Regeneration*. Spinal Cord forum, Salt Lake City, UT.
- 2/2008 Symposium series speaker. *Stem cell hope and hype*. Educational Resource Development Council. University of Utah School of Medicine. Salt Lake City, UT.
- 3/2008 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.

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- 3/2010 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.
- 11/2010 Invited educational lecture, Gastrointestinal development. Pediatric Gastroenterology, Department of Pediatrics. University of Utah. Salt Lake City, UT.
- 3/2011 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.
- 4/2011 Invited Seminar. Amniotic fluid stem cells and congenital heart defects. Department of Pediatrics. University of Utah, Salt Lake City, UT. (CME).
- 4/2012 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.
- 1/2013 Invited speaker, Diocese of Salt Lake. When does life begin? A scientific perspective. Taylorsville, UT.
- 4/2013 Invited educational lecture for spinal cord Injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.
- 5/2013 Invited speaker, Parish Council, Our Lady of Lourdes. When does life begin? A scientific perspective. Magna. UT.
- 9/2013 Invited speaker, Diocese of Salt Lake Annual educational conference. Beginning of life and end of life. Draper, UT.

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- 2/2014 Invited panelist, Public Forum on abortion. St. Luke's Episcopal, Park City, UT.
- 3/2014 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT,
- 9/2014 Plenary Speaker, "The beginning and end of life: An organismal definition." Diocese of Salt Lake Annual Congress, Park City, UT.
- 9/2014 Keynote Speaker. *Stem cells and medicine*. Catholic Medical Association and Diocese of Salt Lake. Salt Lake City, UT. (CME)
- 10/2014 Keynote Speaker. The beginning and end of life. Diocese of Salt Lake annual convocation. Park City, UT.
- 1/2015 Keynote Speaker. Human embryology and the politics of human value. in: Roe v. Wade: 42 Years of Abortion-on-Demand Colloquium. Brigham Young University, School of Law. Provo, UT.
- 4/2015 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Injury Update*. Spinal Cord forum, Salt Lake City, UT.
- 4/2015 Invited lecture, Leadership Development Program. *Principles of Ombudsman Practice and Informal Dispute Resolution*. Human Resources, University of Utah. Salt Lake City, UT.
- 4/2016 Invited educational lecture for spinal cord injured patient population, *Stem Cells and Spinal Cord forum*. Salt Lake City, UT.

Invited Visiting Professor Presentations

- 1/1996 Columbia University, Department of Pathology. New York, NY.
- 2/1996 University of Maryland, Biology Department. College Park, MD.
- 3/1996 University of Minnesota, Genetics and Cell Biology. Minneapolis, MN.
- 4/1996 Mount Sinai School of Medicine, Brookdale Center for Molecular Biology. New York, NY.
- 5/1996 University of Minnesota, Department of Cell Biology and Neuroanatomy. Minneapolis, MN.
- 11/1996 University of Utah, Department of Neurobiology and Anatomy. Salt Lake City, UT.
- 2/1997 University of Illinois at Chicago, Department of Anatomy and Cell Biology Department of Biochemistry. Joint-Departmental seminar speaker. Chicago, IL.
- 4/1997 University of Texas, Southwestern Medical Center, Department of Neurobiology. Dallas, TX.
- 5/2000 University of Virginia, Department of Cell Biology. Charlottesville, VA.
- 10/2000 Case Western Reserve University, Department of Neuroscience. Cleveland, OH.
- 12/2000 University of Kentucky, Anatomy and Neurobiology. Lexington, KY.
- 4/2001 University of Rochester, Aab Institute of Biomedical Sciences. Center for Human Genetics and Molecular Pediatric Disease. Rochester, NY.

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- 1/2002 University of Washington, Seattle. Graduate student invited seminar speaker. Program in Neurobiology and Behavior. Seattle, WA.
- 3/2002 University of Arizona, Tucson. Department of Cell Biology. Tucson, AZ.
- 10/2003 University of Utah, Departmental Seminar. *The role of adaptive motility in sensory neuron development*. Department of Neurobiology. Salt Lake City, UT. 11/2004 Michigan State University. *Integrin function in sensory development and regeneration*. Neuroscience Program and Department of Physiology, East Lansing, MI.
- 12/2004 Medical College of Ohio, *Control of cell motility and guidance in neural development*. Molecular and Cellular Neuroscience Program. Toledo, OH.
- 9/2005 University of Iowa. *Mechanisms of integrin dependent growth cone motility*. Biology Department Seminar speaker. Iowa City, IA
- 1/2006 Expert witness; Missourian's against human cloning. Challenge to wording of Amendment 2 ballot title. Jefferson City, MO.
- 4/2007 Invited speaker. *Conceptualizing conception*. Graduate Student invited seminar speaker. Phi Sigma Tau, The University of St. Thomas. Houston, TX.
- 4/2007 University of Utah, Departmental Seminar, *Alternative sources of pluripotent stem cells*. Department of Neurobiology and Anatomy. Salt Lake City, UT.

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- 6/2007 University of Utah, Departmental Seminar. *Mechanisms of integrin dependent growth cone motility*. Dept. of Neurobiology and Anatomy. Salt Lake City, UT.
- 10/2008 Invited speaker. *Stem cells and human health*. St. Monica Parish. Diocese of Kalamazoo. Kalamazoo, MI.
- 1/2009 Invited speaker. Departmental seminar series. Department of Philosophy. Notre Dame University. South Bend, IN.
- 1/2009 Invited speaker. Departmental seminar series. *Mechanisms of motility in neural development*. Department of Biology. Notre Dame University. South Bend, IN.
- 10/2009 Invited speaker. Office of the Vice President and Department of Biology. *Science policy*. Colorado State University. Boulder, Co.
- 6/2011 Invited Visiting Professor (six lectures). Human embryology, stem cell research, beginning of life, end of life and definition of an embryo. Notre Dame University, South Bend, IN.
- 2/2012 Invited Speaker. Amniotic Stem cells and congenital heart disease. Belmont Abbey College, Belmont, NC.
- 3/2012 Invited speaker. Stem cell research; ethics and science. Vanderbilt University and the Catholic Diocese of Nashville. Nashville, TN.
- 3/2012 Invited speaker. When does life begin? Vanderbilt University, Department of Pharmacology. Nashville, TN.
- 6/2012 Invited Visiting Professor (six lectures). Human embryology, stem cell research, beginning of life, end of life and definition of

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- an embryo. Notre Dame University, South Bend, IN.
- 9/2012 Invited speaker. Medical embryology. Texas A&M University, School of Medicine, College Station, TX.
- 10/2012 Invited Speaker. Why does the embryo matter? Office of Undergraduate Activities. Princeton University, Princeton, NJ.
- 3/2013 Invited Speaker. Stem cell research and Ethics. Arizona State University, Sandra Day O'Connor School of Law. Phoenix, AZ,
- 6/2013 Invited Visiting Professor (six lectures). Human embryology, stem cell research, beginning of life, end of life and definition of an embryo. Notre Dame University, South Bend, IN.
- 10/2013 Invited Speaker. Aristotelian Embryology. The Pontifical Gregorian University. Rome, Italy.
- 10/2013 Invited Visiting Professor. Stem cell research and ethics. St. John's University. Rome, Italy.
- 11/2013 Invited Visiting Professor (four lectures). Organismal criteria for the beginning and the end of life. The Catholic University of America. Washington, DC.
- 11/2013 Invited Panel Participant. The brain death criteria. The Catholic University of America. Washington, DC.
- 6/2014 Invited Visiting Professor (five lectures). Human embryology, stem cell research, beginning of life, end of life and definition of an embryo. Notre Dame University, South Bend, IN.

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- 4/2015 Invited Visiting Professor. University of Texas, Austin. Coalition of student groups. Human embryology and ethics. Austin, TX.
- 6/2015 Invited Visiting Professor (four lectures). Human embryology, stem cell research, beginning of life, end of life and definition of an embryo. Notre Dame University, South Bend, IN.

Grand Rounds Presentations

- 12/1996 Baylor College of Medicine, Department of Surgery, Houston, TX.
- 11/1998 University of Utah, Grand Rounds seminar. *Stem cells in Pediatrics Medicine*. Department of Pediatrics. Salt Lake City, UT.
- 4/2001 University of Utah, Grand Rounds seminar. *Integrins in sensory neuron development and regeneration*. Department of Pediatrics. Salt Lake City, UT.

Outreach and Public Education

- 1998-02 Science Fair Judge; Middle school, Salt Lake City, UT. Interviews with students and evaluation of science fair projects.
- 2005 Science Fair Judge; Junior High School, Salt Lake City, UT. Interviews with students, evaluation and ranking of science fair projects.
- 2007 Interview; Catherine Caine, Undergraduate student, Brigham Young University UT. Regenerative medicine.
- 2007 Interview; Maria Stone, Undergraduate student, Carlton College MN. Regenerative medicine.

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- 2007 Interview; Heather Borck, HS student, Nashville, TN. Stem cell therapies.
- 2007 Lecture; Junior High School, Salt Lake City, UT. Presentation to 7th and 8th grade students about the scientific method.
- 2008 Interview; Jessica Rump, Nashville, TN. High School AP honors paper. Induced Pluripotent Stem Cells.
- 2010 Interview; Iris Xu, Leal Elementary, Cerritos, CA, 6th grade. Neuroscience careers.
- 2012 Interview, Cierra Pieper, Dakota State University, Madison, SD. Scientific evidence regarding early human development.
- 2013 Interview (email), James McTavish, Manila, Philippines. Early embryo death; medical evidence.
- 2013 Interview (email), Maria Wanchc, Bismark, North Dakota. Scientific evidence on when life begins.
- 2013 Interview (email), Maddalena Togliani, Italy. ALS clinical research.
- 2013 Interview (email). Ismael Hernandez, Executive Director, Freedom & Virtue Institute, Fort Myers, FL. Scientific evidence on when life begins.
- 2013 Interview (email), Rose Hershenov, Niagra University, Niagra NY. Scientific definition of the zygote.
- 2014 Interview (email), Sri Talla, University California, Los Angeles. Human embryology.
- 2014 Interview (email), Paulina Knobloch, Jagiellonian University, Kraków, Poland. STAP cells and totipotency.

- 2014 Interview, Dennis M. Sullivan, Cedarville University, Cedarville, OH. Human embryology.
- 2014 Interview (email), Rita K. Vaughn, Minot, ND. Fetal pain.
- 2014 Interview (email), Eric Andre, Saskatoon Sk, Canada. Scientific evidence for when life begins.
- 2014 Interview (email). Erika Bachiochi, Boston, MA. Abortion and contraception.
- 2014 Interview (email). Ashlen Sandoz, Louisiana. High School anatomy project. Brain circuitry and fetal pain.
- 2015 Interview (email). Ernie Ramos. When does life begin? Juneau Douglas High School, Juneau, AK.

LIST OF CASES IN WHICH DR. MAUREEN L. CONDIC HAS TESTIFIED AS AN EXPERT AT TRIAL OR BY DEPOSITION IN LAST FOUR YEARS

1. *Susan Elderkin, et al. v. Maurice J. Mahoney, et al.*, NNH-CV-15-6056191-S (Superior Court of Connecticut, Judicial District of New Haven) (Deposition)
2. *Amy Bryant et al. v. Jim Woodall, et al.*, Civil Action No. 1:16-cv-01368-UA-LPA (U.S. District Court M.D.N.C) (Deposition)