

# Ethical Issues Arise When Judges Exercise Bad Scientific Analysis: Worse Issues eArise When They Exercise No Scientific Analysis

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[T]he really creative legal thinkers of the future will [...] more and more look behind the pretty array of “correct” cases to the actual facts of judicial behavior [and] will more and more look behind the traditionally accepted principles of “justice” and “reason” to appraise in ethical terms the social values at stake in any choice between two precedents.<sup>1</sup>

— Felix S. Cohen

Justice Breyer wrote at the turn of the century, “[i]n this age of science, science should expect to find a warm welcome, perhaps a permanent home, in our courtrooms[.]” for the resolution of “basic questions of human liberty” often “demand[s] an understanding of scientific matters.”<sup>2</sup> For example, in 1997, the justices needed to develop informed understandings of the relevant scientific arts while reviewing whether the U.S. Constitution confers a right to die with dignity and whether psychopathology could constitutionally justify indefinite, noncriminal confinement.<sup>3</sup> As the justices learned and computed scientific consensus and facts of nature, their work reflected what Felix S. Cohen considered a “functionalist” approach to questions of constitutional fundamental rights. In contrast though, the 21st Century Supreme Court has moved more toward what Cohen termed in 1935 “transcendental nonsense”—the piecing together of rules abstracted from precedential rulings to resolve a new set of facts with neither “any consideration of the practical consequences” of the decision<sup>4</sup> nor appraisal, in ethical terms, of the social values at stake in deciding which precedents to maintain.

This Note argues that both trial *and* appellate judges have an ethical duty to grapple with the medical impacts of their rulings and to defer to scientific experts for proper interpretations of scientific evidence before them. As we will see in the example of the recent mifepristone challenge in federal court, non-scientists can easily misinterpret and misapply scientific studies; this Note argues that judges have an ethical duty to guard against such abuse. On the other hand, as we will see in a discussion of lab techniques in a challenge against acetaminophen, judges also have a duty to listen to each side’s assessment of proffered scientific evidence to hear expert critiques of experimental methods.

These ethical duties for judges can be considered as arising from the ABA’s Model Rules for Professional Conduct (MRPC) 8.4(c) and (d): a lawyer cannot “engage in conduct involving dishonesty, fraud, deceit, or misrepresentation,” nor can a judge “engage in conduct that is prejudicial to the administration of justice.”<sup>5</sup> To let “junk science” stand as evidence; to interpret a scientific study that was done without intention of being applied in court against the conclusions of

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1. Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809 (1935).

2. Stephen Breyer, *Science in the Courtroom*, 16 ISSUES SCI. TECH., no. 4, 52, 53 (2000).

3. *See id.*

4. *See* John Hasnas, *Where is Felix Cohen When We Need Him? Transcendental Nonsense and The Moral Responsibility of Corporations*, 19 J. L. & POL’Y 55, 56 (2010); *see also* Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809 (1935).

5. MODEL RULES OF PROF’L CONDUCT R. 8.4(c), (d) (2025).

scientists who conducted it; or to overlook scientific, medical, and statistical evidence presented to the court altogether could all be considered to be misrepresentative or unnecessarily prejudicial. Thus, in addition to grappling with evidence presented, judges must recognize their own limited experience and therefore defer to scientific expertise. This provides for a functional assessment of the matters at hand and informed, ethical application of case law—as opposed to more simply picking from an array of precedents available in the court record.

The *less* functionalist choosing of precedents, including a mix of centuries-old traditions and more recent court opinions that are countervailed by others, effected the overturning of *Roe v. Wade*, which has placed many women<sup>6</sup> in medical peril. A specific path through legal precedents provided for using the least scrutinous level of court review to evaluate a challenged abortion restriction. While a physician or layperson would likely see that being a pregnant woman bears a status uniquely affected by abortion-restricting laws, judges excessively focused on precedents and pre-Nineteenth Amendment history can find it prudent to exclude medical outcomes while resolving the legal question; this is what the *Dobbs* majority opinion did.

Thus, this Note proposes that in their efforts to make ethical rulings, judges and justices should weigh scientific and statistical evidence heavily in health-related cases and should have trusted neutral experts at the ready to apprise the court of scientific consensus on predicted outcomes from certain changes in law. Given how *amici* often bear partisan valences that may bias a judge's construction of their arguments, judges' access to and consideration of trusted scientific interpreters from within the courthouse may effectuate both more accurate *and* more capacious reasoning; hearing the likely health-related effects of their decisions from closely trusted scientific interpreters may spark more frequent functionalism like that applied in many 20<sup>th</sup> Century landmark opinions. This could be especially helpful as the recent overturning of “*Chevron* deference”<sup>7</sup> promises to bring many novel questions regarding modern medicine, environmental science, and technology to the bench.

With this in mind, this Note will explore federal courts' applications of science (or lack thereof) in controversies over medical matters. Part I will compare good science applied by district trial judges in a sample of FDA cases to dangerously poor science in one recent case. Parts II, III, and IV will then look at how the sidelining of science in the landmark *Dobbs* ruling contrasts with health science's influence in past critical Supreme Court rulings, including Justice Harry Blackmun's *Roe* opinion. Part IV will also probe problems arising when a justice erroneously infers a scientific conclusion themselves. Finally, Part V will contemplate policy proposals for cultivating greater friendship between appellate judges

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6. In this Note, the term “woman” will refer to biological sex. The paper recognizes that gender is more complex and that transgender men can indeed become pregnant, but for space and ease, this Note will use the term “woman” for biologically impregnable persons.

7. See *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2267 (2024); see also *Chevron, U.S.A., Inc. v. NRDC, Inc.*, 467 U.S. 837, 844 (1984).

and scientific experts, including the idea of requiring that some of the closest friends of the court—the law clerks—should have prior education in science or technology.

## I. TRIAL JUDGES CAN BEAR EXTRAORDINARY RESPONSIBILITY AS BOTH GATEKEEPERS AND INTERPRETERS OF SCIENTIFIC EVIDENCE

As discussed in Section I.B, *infra*, federal district judges *are* indeed capable of deciphering reliable science from “junk,” as is mandated by the Federal Rules of Evidence—and as facilitated by a program discussed in Section V.A, *infra*—but state judges may need greater resources to accomplish this. Meanwhile, the recent (already overturned) preliminary injunction against FDA approval for the abortive drug mifepristone exemplifies a federal trial judge exercising awful science,<sup>8</sup> suggesting that during review of science-related facts established at trial, appellate courts have good reason to more readily find abuse of discretion<sup>9</sup> or to review challenged factual findings *de novo*. Such adjustments would encourage greater legal functionalism in appellate decision-making.

### A. COURT PRECEDENT AND THE FEDERAL RULES OF EVIDENCE ESTABLISH FEDERAL TRIAL JUDGES’ GATEKEEPING ROLE

In 1993, the Supreme Court determined that federal trial judges must evaluate scientific evidence and ensure that “all scientific testimony or evidence admitted is not only relevant, but reliable.”<sup>10</sup> Determining whether to admit a scientific expert’s testimony at federal trial is guided by Federal Rule of Evidence 702 (FRE 702), which asks a judge to evaluate (a) whether a witness’s specialized expertise will help the trier of fact “understand the evidence” at hand or “determine a fact in issue”; (b) whether sufficient facts or data underlie the expert testimony; (c) whether the testimony is the product of “reliable principles and methods”; and (d) whether the expert’s opinion “reflects a reliable application of [those] principles and methods to the facts of the case.”<sup>11</sup> This is a tall order for those trained in law rather than science or statistics, but, considering how judges’ evaluations can impact a variety of procedural points during litigation, the mandate to evaluate real-world facts—i.e., to practice functionalism—is indispensable.

### B. FEDERAL COURTS BLOCKING OF “JUNK” CLAIMS IN MULTIDISTRICT LITIGATION, AS CONTRASTED WITH DEFICIENT SCIENTIFIC REVIEW MANDATES IN SOME STATE COURTS, HIGHLIGHTS THE VALUE OF PROPER SCIENTIFIC GATEKEEPING

In December 2023, Federal District Judge Denise Cote exercised sound scientific judgment when rejecting admission of experts who proffered evidence

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8. See Section I.C., *infra*.

9. As discussed in Section I.C, *infra*, appellate courts’ current standard of review for scientific facts established at trial is just “abuse of discretion.” See *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997).

10. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993).

11. FED. R. EVID. 702.

showing mere correlation as proof of causation.<sup>12</sup> In the federal multidistrict products liability suit against an acetaminophen manufacturer and several retailers, plaintiffs claimed that using acetaminophen during pregnancy increased fetal risk of attention deficit hyperactive disorder (ADHD) or autism spectrum disorder (ASD).<sup>13</sup> Given how a finding of liability would severely impact a wide community of pregnant women, Judge Cote emphasized the importance of proper science in litigation bearing “great public health significance.”<sup>14</sup> Using the “Bradford Hill factors,”—the generally accepted criteria used by epidemiologists for establishing causality<sup>15</sup>—Judge Cote’s *fifty-three pages* of scientific review<sup>16</sup> found cherry picking of studies and methods that impermissibly elided differences between ASD and ADHD.<sup>17</sup> Plaintiffs’ experts were all excluded following Judge Cote’s thorough examination,<sup>18</sup> and defendants won summary judgment.<sup>19</sup>

This closed a burdensome junk science-based case that could have unjustifiably inhibited the pregnant population’s use of the generally accepted safest analgesic painkiller.<sup>20</sup> Judge Cote’s review of *methodology*, rather than just examining the “eminently qualified”<sup>21</sup> experts’ credentials, highlights how a court’s scientific literacy can preserve court resources and the public welfare.

Judge Rosenberg of the Southern District of Florida exercised similar judgment<sup>22</sup> to weed out unreliable evidence in multidistrict litigation following the FDA’s voluntary recall of Zantac’s active ingredient, ranitidine.<sup>23</sup> Plaintiffs relied on studies claiming that heating ranitidine or mixing it with salt concentrate resulted in sums of the carcinogen NDMA thousands of times greater than the FDA’s daily recommended limit.<sup>24</sup> Judge Rosenberg found fatal methodological flaws: One study heated ranitidine to 266 degrees Fahrenheit (far exceeding human body temperature), and another study used a salt concentration so great as to be near deadly if consumed.<sup>25</sup> Plaintiffs’ subsequent abandonment of this line of evidence<sup>26</sup> illustrates the scientifically critical judge’s importance.

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12. Sherman Joyce, *New Rule 702 Helps Judges Keep Bad Science Out Of Court*, LAW360 (Feb. 13, 2024), <https://www.law360.com/articles/1796188/new-rule-702-helps-judges-keep-bad-science-out-of-court> [https://perma.cc/E5ZK-DHRW].

13. *In re Acetaminophen - ASD-ADHD Prods. Liab. Litig.*, 707 F. Supp. 3d 309, 317 (S.D.N.Y. 2023).

14. *Id.* at 334.

15. *Daniels-Feasel v. Forest Pharms., Inc.*, No. 17 CV 4188-LTS-JLC, 2021 U.S. Dist. LEXIS 168292, at \*9 (S.D.N.Y. Sep. 3, 2021).

16. *See In re Acetaminophen*, 707 F. Supp. 3d at 319–72.

17. *See In re Acetaminophen*, 707 F. Supp. 3d at 338–41.

18. Joyce, *supra* note 12.

19. *In re Acetaminophen*, No. 22MD3043 (DLC), 2024 U.S. Dist. LEXIS 148550, at \*1 (S.D.N.Y. Aug. 20, 2024).

20. *See Malaika Babb et al., Treating Pain During Pregnancy*, 56 *Can. Fam. Physician*, no. 1, 2010, at 25.

21. *In re Acetaminophen - ASD-ADHD Prods. Liab. Litig.*, 707 F. Supp. 3d 309, 317 (S.D.N.Y. 2023).

22. Joyce, *supra* note 12.

23. *In re Zantac (Ranitidine) Prods. Liab. Litig.*, 644 F. Supp. 3d 1075, 1175 (S.D. Fla. 2022).

24. *See In re Zantac*, 644 F. Supp. 3d at 1092.

25. *Id.*

26. *Id.* at 1175.

In contrast, state trial courts have awarded unjust damages when judges failed to preclude dubious scientific evidence. In 2024, a single plaintiff in Pennsylvania was awarded initially \$2.25 billion<sup>27</sup> (later reduced to \$400 million<sup>28</sup>) on a claim that the ingredient glyphosate in Monsanto's Roundup weed killer contributed to inducing his non-Hodgkin's lymphoma.<sup>29</sup> Plaintiffs used a single report from the International Agency for Research on Cancer (IARC) stating that glyphosate is "probably carcinogenic."<sup>30</sup> Standing in contrast to 800 other studies, plus analyses by the U.S. Environmental Protection Agency and Health Canada,<sup>31</sup> the IARC conclusion raised questions of motivated reasoning and data manipulation, as the finalized IARC study was "altered in at least 10 ways to either remove or reverse conclusions finding no evidence of carcinogenicity."<sup>32</sup> If Federal Rule of Evidence § 702 were applicable here, the judge could have blocked the study for insufficient data (§ 702(b)) or for presenting an opinion that does not reflect *reliable*<sup>33</sup> application of scientific principles and methods (§ 702(d)).

Similarly, a New Jersey state judge's failed gatekeeping led to a since-reversed jury award of \$224 million to a claimant against Johnson & Johnson.<sup>34</sup> The trial court had denied motions to hold hearings to scrutinize the evidence; defendants' arguments mirrored FRE § 702 and New Jersey's state version of the rule,<sup>35</sup> discussing failure to establish opinions reflecting reliable application of generally accepted methodologies.<sup>36</sup> The appeals court agreed that the trial court clearly erred "[i]n permitting this testimony without first conducting [a] hearing and subjecting [one expert's] claims to the standards set forth in *Accutane* and *Daubert*," and thereby abused its discretion.<sup>37</sup>

Such large, erroneously awarded damages evidence an economic threat when judges fail to scrutinize scientific methodologies and conclusions, and the appellate courts' findings of abuse of discretion represent a saving grace available in the court system. At the same time though, proper gatekeeping poses a heavy

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27. *McKivison v. Monsanto Co.*, 2024 WL 618401 (Pa. Com. Pl.) (Verdict and Settlement Summary).

28. Sepehr Achard, *Post-Trial Motions in McKivison v. Monsanto: Verdict Reduced to \$400M*, iGROW NEWS (June 5, 2024), <https://igrownnews.com/post-trial-motions-in-mckivison-v-monsanto-verdict-reduced-to-400m/> [<https://perma.cc/3PB3-VDEH>].

29. *McKivison v. Monsanto Co.*, 2024 WL 618401 (Pa. Com. Pl.) (Verdict and Settlement Summary).

30. See Joyce, *supra* note 12.

31. See Joyce, *supra* note 12 (explaining that the expert who advised the study was being "paid by an anti-pesticide group and law firms suing over glyphosate").

32. Joyce, *supra* note 12; Kate Kelland, *Glyphosate: WHO Cancer Agency Edited Out 'Non-Carcinogenic' Findings*, REUTERS INVESTIGATES (Oct. 19, 2017), <https://www.reuters.com/investigates/special-report/who-iarc-glyphosate/> [<https://perma.cc/WZP5-PY2R>].

33. See *Reliable*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/thesaurus/reliable> [<https://perma.cc/3S4N-LS2F>] (last visited Dec. 8, 2024) (providing "trustworthy" and "true" as primary synonyms for "reliable").

34. *Barden v. Brenntag N. Am.*, Nos. A-0047-20, A-0048-20, A-0049-20, A-0050-20, 2023 N.J. Super. Unpub. LEXIS 1624, at \*1 (Super. Ct. App. Div. Oct. 3, 2023); see Joyce, *supra* note 12.

35. *Barden*, 2023 N.J. Super. Unpub. LEXIS 1624 at \*6.

36. *Barden*, 2023 N.J. Super. Unpub. LEXIS 1624 at \*5.

37. *Barden*, 2023 N.J. Super. Unpub. LEXIS 1624 at \*32.

burden on judges who do not necessarily have the capacity (either time-wise or knowledge-wise) to conduct such review. Thus, policymakers are urged to avail the courts of impartial experts to help review evidence, and courts themselves should perhaps consider allowing *de novo* review of contested scientific facts rather than the mere abuse of discretion standard of review established by the Supreme Court in *General Electric Co. v. Joiner*.<sup>38</sup> With that in mind, we now turn to an alarming example of failed pre-trial gatekeeping.

### C. THE RECENT SUSPENSION OF MIFEPRISTONE'S FDA APPROVAL ILLUSTRATES A STUNNING AND ARGUABLY UNETHICAL MISCARRIAGE OF SCIENCE

Following the Alliance for Hippocratic Medicine (AHM), et al.'s challenge to the FDA's 22-year-old approval of the abortifacient mifepristone, District Judge Matthew Kacsmaryk granted plaintiffs' requested preliminary injunction<sup>39</sup> in an error-packed opinion revealing that the judge either misunderstood or did not review the science underlying his conclusion that mifepristone poses a greater threat to health than the FDA had recognized. Criticism by medical and scientific publications soon followed, suggesting that the judge's misconstruction of evidence was poor enough to constitute an ethical breach. However, on appeal, the Fifth Circuit did not review or exclude any of the district's scientific errors but instead chastised appellants for arguing that the FDA is better suited than a judge to draw conclusions about the drug's safety<sup>40</sup>; the Supreme Court then overruled the preliminary injunction for plaintiffs' lack of standing, leaving the evidentiary misrepresentations in the record.<sup>41</sup> Justice was done in the end, but the courts' failures to adequately scrutinize science sounds an alarm nevertheless.

#### 1. WHEN RELYING ON UNFIT DATA AND MISSTATING STUDIES' FINDINGS, JUDGE KACSMARYK BREACHED HIS MRPC ETHICAL DUTIES

For example, to justify his finding that mifepristone causes "many intense side effects" and that "on balance, the data reflect little to no benefit over surgical abortion—much less a 'meaningful therapeutic' benefit,"<sup>42</sup> Judge Kacsmaryk points to a 2001 study discussing how expelling and seeing the aborted fetus "appears to be a difficult aspect of the medical termination process" that "may influence later emotional adaptation."<sup>43</sup> However, with risk being inherent in *any* medical treatment, this finding regarding emotional adaptation does not speak to whether

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38. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997).

39. *All. for Hippocratic Med. v. United States Food & Drug Admin.*, 668 F. Supp. 3d 507, 520 (N.D. Tex. 2023).

40. *See All. for Hippocratic Med. v. United States Food & Drug Admin.*, 78 F.4th 210, 270 (5th Cir. 2023).

41. *Food & Drug Admin. v. All. for Hippocratic Med.*, 602 U.S. 367, 374, 397 (2024).

42. *See All. for Hippocratic Med. v. United States Food & Drug Admin.*, 668 F. Supp. 3d 507, 525, 548 (N.D. Tex. 2023).

43. *Id.* at 537 (emphasis added).

or not the drug provides a therapeutic benefit. More strikingly, the study's actual conclusion was, "More adequate preparation is required for those having medical termination so that they have realistic expectations of what will happen, including [possibly seeing] the foetus."<sup>44</sup>

Another study by the same researchers *did* directly compare patient outcomes with chemical versus surgical abortions; it found, "Termination method did not influence emotional adjustment."<sup>45</sup> Instead, chemical abortion provides the obvious benefit of avoiding an invasive physical procedure.

Judge Kacsmaryk and plaintiffs also seized on a study finding that *Finnish* women who received medication abortions had a fourfold greater rate of "adverse events" than surgical abortion recipients.<sup>46</sup> Study author Oskari Heikinheimo criticized Judge Kacsmaryk's failure to account for the fact that significant complications were extremely low among *all* Finnish patients.<sup>47</sup> A science-minded critical thinker would quickly recognize that extrapolating trends from an exceedingly low sample size is unreliable and that applying trends from one population to another very different population is similarly troublesome.

Dr. Heikinheimo reports that he was not contacted by plaintiffs in *Alliance for Hippocratic Medicine* and that both plaintiffs and judge *purposely* misunderstood his work for a "political game" that "has nothing to do with the scientific process."<sup>48</sup> This raises suspicion of the judge's abuse of discretion.

To justify plaintiffs' argument that medication abortion recipients' visits to emergency departments (ED) "place 'enormous pressure and stress' on doctors" and "consume crucial limited resources,"<sup>49</sup> Judge Kacsmaryk cites a study of *Medicaid* recipients; the study concludes that medication abortions pose a high risk of serious adverse side effects *because* over a quarter of the subjects on Medicaid visited an ED within 30 days after receiving a medication abortion.<sup>50</sup> The judge fails to consider that Medicaid recipients are overall significantly more likely to visit emergency departments for care than people on other insurance plans.<sup>51</sup> That patients visit an ED does not necessarily signal emergency injury;

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44. Pauline Slade et al., *Termination of Pregnancy: Patients' Perceptions of Care*, 27 J. FAM. PLAN. AND REPROD. HEALTH CARE, no. 2, 2001, at 72.

45. Pauline Slade et al., *A Comparison of Medical and Surgical Termination of Pregnancy: Choice, Emotional Impact and Satisfaction with Care*, 105 BRIT. J. OBSTETRICS AND GYNAECOLOGY, no. 12, 1998, at 1288.

46. Lauren Weber et al., *Unpacking the Flawed Science Cited in the Texas Abortion Pill Ruling*, WASH. POST, Apr. 13, 2023, <https://www.washingtonpost.com/health/2023/04/13/abortion-pill-safety/> [<https://perma.cc/DK8M-B3X4>]; see also *All. for Hippocratic Med. v. United States Food & Drug Admin.*, 668 F. Supp. 3d 507, 547 (N.D. Tex. 2023) (citing Maarit Niinimäki et al., *Immediate Complications After Medical Compared with Surgical Termination of Pregnancy*, 114 OBSTETRICS & GYNECOLOGY 795 (2009)).

47. Weber, *supra* note 46.

48. *Id.*

49. *All. for Hippocratic Med.* (N.D. Tex. 2023) at 523–24 (citing James Studnicki et al., *A Longitudinal Cohort Study of Emergency Room Utilization Following Mifepristone Chemical and Surgical Abortions, 1999–2015*, 8 HEALTH SERV. RSCH. MGMT. EPIDEMIOLOGY 8 (2021)) (quote marks omitted).

50. Weber, *supra* note 46.

51. See Paul T. Cheung et al., *National Study of Barriers to Timely Primary Care and Emergency Department Utilization Among Medicaid Beneficiaries*, 60 ANNALS OF EMERGENCY MED.: AN INT'L J., no. 1,

instead, as explained by reproductive health expert and UCSF professor Dr. Ushma Upadhyay, women often visit an ED as a precautionary measure to check their amount of bleeding following medication abortion.<sup>52</sup>

Furthermore, Judge Kacsmaryk's first fact evidencing that threat of irreparable harm justifies a preliminary injunction is: "At least two women died from chemical abortion drugs just last year."<sup>53</sup> However, CDC data shows a death rate of only 0.45 per 100,000 legal abortions from 2013–2020 (and as of 2021, the majority of legal abortions are medically induced rather than surgical).<sup>54</sup> In contrast, abdominoplasty (a surgical "tummy tuck") carries a mortality rate of about 7.692 per 100,000<sup>55</sup> but is still legal. Thus, a medical thinker would likely find mifepristone's death rate to be exceedingly low.

This was the first time a court suspended approval of a drug that had been approved by the FDA's rigorous review process,<sup>56</sup> even though, as of December 31, 2022, CDC had found only 32 reports of death among the 5.9 million total mifepristone recipients since the drug's approval in September, 2000.<sup>57</sup> Furthermore, on account of confounding factors such as co-existing medical conditions and treatments, none of the deaths could be causally attributed to mifepristone.<sup>58</sup> Unfortunately, the judge weighed neither potential confounding factors nor the risks associated with alternatives to medication abortion. In stark contrast to Judge Cote's meticulous reasoning discussed *supra*, this district ruling raises concerns about either shocking scientific ignorance on the part of the Texas district judge or motivated reasoning and an unjust ruling; either way, misrepresentation of scientific evidence prejudiced the ruling, thereby evidencing an ethical violation.

## 2. NEITHER THE FIFTH CIRCUIT NOR SUPREME COURT REVIEWED THE LOWER COURT'S SCIENTIFIC CONCLUSIONS FOR REASONABILITY

Notably, while appellate courts review the admission of *expert witnesses* for abuse of discretion,<sup>59</sup> they are not expressly directed to review judges' use of

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July 2012, at 4; Hyunjee Kim et al., *Comparing Emergency Department Use Among Medicaid and Commercial Patients Using All-Payer All-Claims Data*, 20 POPULATION HEALTH MGMT., no. 4, Aug. 1, 2017, at 271, 273–74.

52. Weber, *supra* note 46. (Dr. Upadhyay opines that the institute behind that study "blur[s] the lines[.] . . . They're not using medically endorsed definitions [for separating mere side effects from 'complications'].")

53. *All. for Hippocratic Med. v. United States Food & Drug Admin.*, 668 F. Supp. 3d 507, 557 (N.D. Tex. 2023).

54. Katherine Kortsmit et al., *Abortion Surveillance—United States, 2021*, 72 MORBIDITY MORTALITY WKLY. REP., no. 9, Nov. 24, 2023, at 1, 27, 28.

55. Rod J. Rohrich et al., *Assessing Cosmetic Surgery Safety: The Evolving Data*, 8 PLASTIC RECONSTRUCTIVE SURGERY GLOB. OPEN, no. 5, May 13, 2020, at 2, (showing an abdominoplasty-related death rate of one per 13,000, which rounds to 7.692 per 100,000).

56. *See* Weber, *supra* note 46.

57. U.S. FOOD & DRUG ADMIN., MIFEPRISTONE U.S. POST-MARKETING ADVERSE EVENTS SUMMARY THROUGH 12/31/2022 (2022).

58. *Id.*

59. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997).

erroneous scientific reasoning proffered in briefs. Accordingly, the Fifth Circuit overlooks challenges to the district's poor science; it instead homes in on the FDA's use of an agency rule providing "[a]ccelerated approval of new drugs for serious or life-threatening illnesses" and affirms the district's decision that pregnancy is not an "illness."<sup>60</sup> However, the FDA explains that it utilized accelerated approval for two reasons: (1) to initially restrict the distribution of mifepristone to certain care settings<sup>61</sup> and (2) because the FDA determined that pregnancy is a "serious medical condition[.]"<sup>62</sup> Those experts at the FDA who wrote the rule stated in the preamble that this accelerated approval process was available for drugs treating "serious or life-threatening conditions"; hence the question did not turn on whether or not pregnancy is an "illness"<sup>63</sup>; nevertheless these courts imposed their own demonstrably non-expert interpretation.

This raises concern over the post-*Chevron* regime wherein courts will no longer defer to agencies' interpretations of ambiguities in statutes,<sup>64</sup> which is especially troublesome when the court focuses so much on rule text as to turn a blind eye to material *facts*; this exemplifies what Cohen called "transcendental nonsense." One crucial, overlooked fact here is that despite using expedited approval, mifepristone was *not* approved expeditiously; four years of review passed between application and approval.<sup>65</sup>

The FDA's appellant brief to the Fifth Circuit repeatedly emphasizes the rigors of FDA's four-year review of the drug before granting it approval in 2000, plus updated FDA reviews since.<sup>66</sup> In the agency's words, "While FDA justified its scientific conclusions in multiple detailed reviews, [. . .] the district court swept the agency's judgments aside by substituting its own lay understanding of purportedly contrary studies, offering demonstrably erroneous characterizations of the record."<sup>67</sup> Instead of grappling with the lower court's substitution of poor science for the FDA's, the Fifth Circuit here sets aside decades of demonstrated safe use to overrule the FDA's determinations by looking at one word—a word that has no bearing on patients' health—in a rule originally written and applied by the FDA.

The circuit's ruling illustrates how courts *can*, if they choose, depreciate the valuable dividends of science-based health practices by elevating textualism and

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60. See All. for Hippocratic Med. v. United States Food & Drug Admin., 78 F.4th 210, 224 (5th Cir. 2023); see also 21 C.F.R. §§ 314.500 (2024).

61. Brief for Federal Appellants at 45, All. for Hippocratic Med. v. United States Food & Drug Admin., 78 F.4th 210 (5th Cir. 2023) (No. 23-10362).

62. *Id.* at 45–46.

63. *Id.* at 46.

64. See *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2267 (2024).

65. Laurie Sobel et al., *Legal Challenges to the FDA Approval of Medication Abortion Pills*, KFF (March 13, 2023), <https://www.kff.org/womens-health-policy/issue-brief/legal-challenges-to-the-fda-approval-of-medication-abortion-pills/> [<https://perma.cc/T7GX-YRL4>].

66. See Brief for Federal Appellants at 10, 28, 53, 55, All. for Hippocratic Med. v. United States Food & Drug Admin., 78 F.4th 210 (5th Cir. 2023) (No. 23-10362).

67. *Id.* at 16.

the court's own legal logic above empiricism—despite empiricism, *not* law, being the key that unlocked modern medicine. “This kind of Monday morning quarterbacking logic would allow courts to invalidate almost any FDA approval,” warns Professor Nathan Cortez, one of the legal experts signing an amicus brief to the Fifth Circuit.<sup>68</sup> Scott Lassman, a D.C. attorney specializing in FDA matters, adds, “The court’s belief in its own scientific and medical expertise is breathtaking, . . . as if the court is qualified to second-guess the FDA’s contrary medical decision.”<sup>69</sup> As demonstrated *supra*, the court is not. However, this appellate review left district judges undissuaded from relying on their own poor reasoning.

Furthermore, the ruling “threatens to stifle pharmaceutical innovation by disrupting industry’s reasonable investment-backed expectations.”<sup>70</sup> Investors devote billions of dollars each year toward developing innovative drugs on the expectation of returns when a drug proves worthy by the congressionally mandated, thorough rigors of the FDA approval process.<sup>71</sup> If investors instead expect the possibility that a safe, proven medication could be removed despite the manufacturers’ and FDA’s work to ensure safety, investments would be cooled.<sup>72</sup> Given modern medicine’s unprecedented success in eradicating disease and increasing life expectancies across the 20<sup>th</sup> century,<sup>73</sup> and given pharmaceutical innovations’ ongoing successes in reducing needs for invasive procedures (as exemplified by the abortion pill), the public expects continuing improvements from this market. If courts substitute their own inexpertise on health and biology for the opinions of FDA, industry, and academic medical experts, the people’s health and expectations can be damaged.

With the *Alliance for Hippocratic Medicine* appellate court decisions in mind, let us now contemplate how the Supreme Court’s devotion to precedents as it overturned a long-relied-upon precedent takes a highly questionable path to arrive at a ruling affecting millions of women across the country.

## II. THE U.S. SUPREME COURT’S *DOBBS* RULING RAISES QUESTIONS ABOUT THE ETHICS OF JUDICIAL REASONING THAT UNDULY PRIORITIZES COURT PRECEDENTS ABOVE HEALTH SCIENCE

In the landmark revocation of federal recognition of a right to abortion access, and the resulting revocation of a recently impregnated woman’s right to reproductive self-determination, the majority stunningly sets aside consideration of the

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68. David Ovalle, Laurie McGinley & Rachel Roubein, *Texas Abortion Pill Ruling Threatens FDA*, WASH. POST, Apr. 7, 2023, <https://www.washingtonpost.com/health/2023/04/07/texas-abortion-pill-decision-fda/> [<https://perma.cc/E4B2-HQK9>].

69. *Id.*

70. Brief for the Pharmaceutical Research and Manufacturers of America as Amicus Curiae in Support of Petitioners at 3–4, *All. for Hippocratic Med. v. United States Food & Drug Admin.*, 78 F.4th 210 (5th Cir. 2023) (Nos. 23-235 & 23-236).

71. *Id.*

72. *See Id.*

73. *See The Hamilton Project*, BROOKINGS INST., June 2016, [https://www.hamiltonproject.org/assets/files/changing\\_landscape\\_american\\_life\\_expectancy.pdf](https://www.hamiltonproject.org/assets/files/changing_landscape_american_life_expectancy.pdf) [<https://perma.cc/D3JD-GZFS>].

decision’s medical impacts on women. Considering how drawing from precedent alone—rather than including empirical, medical considerations—could lead the court to different decisions, overlooking those empirical, medical considerations makes for a less fulsome, less-reasoned decision. Considering the risks to women’s health introduced by the ruling, this less-fulsome approach should be considered an unethical use of court power.

A. THE MAJORITY’S PATH THROUGH LEGAL PRECEDENTS EXEMPLIFIES  
HOW RULINGS THAT AVOID CONSIDERATION OF PHYSICAL REALITIES  
CAN UNNECESSARILY SUBJECT PERSONS TO UNFAIR OR EVEN  
UNHEALTHY LAWS

As Justice Kagan’s dissent in *Dobbs v. Jackson Women’s Health* emphasizes, the majority ruling subjects laws criminalizing abortion to the “lowest level of scrutiny known to the law.”<sup>74</sup> The majority arrives at this low level of scrutiny by reasoning that “[a] state’s regulation of abortion is not a sex-based classification and is thus not subject to . . . ‘heightened scrutiny[.]’”<sup>75</sup> because “heightened scrutiny” is only triggered for a sex-related law that is a “mere pretext[t] designed to effect an invidious discrimination against members of one sex[.]”<sup>76</sup> Justice Alito draws this rule from a note in *Geduldig v. Aiello*, the case that tested whether a state disability insurance plan’s exclusion of pregnancy-related disabilities from coverage was unduly discriminatory.<sup>77</sup> The *Geduldig* majority<sup>78</sup> agrees that (a) there is “no risk from which men are protected and women are not”<sup>79</sup> and (b) nothing in the legislative record suggests exclusion of pregnancy-related disabilities from the benefits plan was designed to discriminate against a sex.<sup>80</sup> The majority finds that the line of classification is drawn not between men and women but instead between pregnant and non-pregnant persons.<sup>81</sup> At least three problems arise with *Dobbs*’s application of this precedent:

First, *Geduldig* considers that, because non-pregnant women and men both have the same disability benefits available to them, the law does not purposely discriminate against anyone. This ignores how only biological females have the capacity to become pregnant; it ignores the fact that in the course of a woman and man conceiving, carrying, and birthing a child, the woman bears *all* of the physiological risks after intercourse. Physiological risks for men in the process (e.g., contracting disease *during* intercourse) could be covered by the plan because they would not be related to *pregnancy*. Therefore, the state conferred risk protection to

74. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 360 (2022) (Kagan, J., dissenting).

75. *Id.* at 236 (citing *Sessions v. Morales-Santana*, 582 U.S. 47 (2017)).

76. *Id.* (quoting *Geduldig v. Aiello*, 417 U.S. 487, 496 n. 20 (1974)).

77. *Geduldig v. Aiello*, 417 U.S. 484, 486, 489 (1974).

78. (all men, notably)

79. *Geduldig v. Aiello*, 417 U.S. 484, 496–497 (1974).

80. *Id.* at 496.

81. *Id.* n.20.

men who want to bear a child through traditional means but *not* to women who do the same. Nevertheless, *Dobbs* overlooks this asymmetry and instead imports into abortion jurisprudence the idea that a state policy conferring freedoms<sup>82</sup> on men but not on women maintains, rather than violates, equal protection.

Second, as Brennan's *Geduldig* dissent points out, men obviously suffer medical conditions women do not, and the disability policy compensated men for them.<sup>83</sup> *Dobbs* relies on the rule that only laws *designed* to discriminate trigger heightened or strict scrutiny, but *Geduldig* arrives at that rule by relying on the veritably false claim that the disability plan protected men from *no risk* from which women were not also protected. This illustrates a major problem with relying on precedential "transcendental nonsense": Precedents themselves can be inconsistent or based on mistruths that go uncured in their future applications.

Third, the idea that heightened scrutiny triggers only for laws designed as a "mere pretext" for effecting discrimination eagerly invites the court to subjectively intuit lawmakers' intentions. As Brennan's *Geduldig* dissent argues, this "mere pretext" rule departs from the standards for triggering heightened scrutiny developed in *Reed v. Reed* and *Frontiero v. Richardson*.<sup>84</sup> Given the early 1970s culture, the policies challenged in *Reed* and *Frontiero*—that intestate executorship should prioritize a fitting male rather than female<sup>85</sup> and that only men in armed services could claim a spouse as a dependent<sup>86</sup>—could have been argued to be rational rather than pretextual. Thus, under the *Geduldig* test that *Dobbs* inherits, those policies in the classic "heightened scrutiny" cases could be deemed non-violative of Equal Protection; petitioners and judges *could*, if their intuitions inclined them to do so, argue that rational bases existed for those policies, thereby making them non-discriminatory.

The use of *Geduldig* in *Dobbs*, rather than *Reed* or *Frontiero*, shows the malleability of the court record; judges can cherry pick. And when the court prioritizes its hand-selected authorities over facts plain to both expert jurist and lay observer alike, the court can arrive at an absurd conclusion invidious to many. In summary, justices' intuitions are highly influential.

#### B. THE DECISION'S HISTORY-CENTERED METHOD RELIES ON FRACTURED, INCONSISTENT REASONING WHILE IGNORING TRUTHS AVAILABLE FROM EPIDEMIOLOGICAL RECORDS

When *Dobbs* tackles the "substantive due process" question underpinning *Roe's* and *Casey's* protections of abortion rights, it cites precedents sometimes

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82. (*E.g.*, the freedom to conceive, bear, and raise a child with insurance covering disabilities related to the process.)

83. *Geduldig v. Aiello*, 417 U.S. 484, 501 (Brennan, J., dissenting) (stating that covered disabilities affecting only or primarily men include "prostatectomies, circumcision, hemophilia, and gout").

84. *Geduldig v. Aiello*, 417 U.S. 484, 498, 502–03 (1974).

85. *See Reed v. Reed*, 404 U.S. 73, 77 (1971).

86. *See Frontiero v. Richardson*, 411 U.S. 677, 678 (1973).

inconsistent with one another, including some in tension with *Dobbs*'s contention that fundamental rights ought to be those rooted deeply in history and in tension with at least one case<sup>87</sup> that arguably militates in favor of protecting the human reproductive system from government intrusion.

1. IN ATTEMPT TO BE CONSISTENT WITH HISTORICALLY RECOGNIZED FUNDAMENTAL RIGHTS, *DOBBS* TAKES A PATH THROUGH PRECEDENTS THAT REVEALS HISTORY'S INCONSISTENCY

For fundamental rights not listed in the Bill of Rights, the *Dobbs* majority holds that the existence of the right turns on "whether the right is 'deeply rooted in [our] history and tradition' and whether it is essential to our Nation's 'scheme of ordered liberty.'"<sup>88</sup> Consider the language "scheme of ordered liberty." The court in *Wash. v. Glucksberg* (1997) drew this phrase from 1937 Supreme Court case *Palko v. Connecticut*.<sup>89</sup> *Palko* asked whether the Fifth Amendment protection against double jeopardy is incorporated into state law by the Fourteenth Amendment, and the court answered "no," finding that incorporation of this right is not historically rooted.<sup>90</sup> *Palko* also states that the right to trial by jury is "not of the very essence of a scheme of ordered liberty."<sup>91</sup> That these rights have since been deemed fundamental and have been incorporated to state law<sup>92</sup> illustrates how our concepts of rights and ordered liberty shifted over time *even* in regards to rights named *in* the Bill of Rights.

2. *DOBBS*'S RELIANCE ON THE PHRASE "DEEPLY ROOTED" IN *GLUCKSBERG* COMBINED WITH JUSTICE SOUTER'S CONCURRENCE IN *GLUCKSBERG* SHOWS HOW THE *DOBBS* COURT COULD HAVE FOLLOWED A LINE OF PRECEDENT BACK TO THE *SKINNER* AND/OR THE SUPREME COURT'S PRIOR PROTECTIONS OF PRIVACY REGARDING FAMILY AND REPRODUCTIVE MATTERS

Justice Souter's *Glucksberg* concurrence cites the phrase "deeply rooted" as used in Justice Harlan's dissent in the 1961 *Poe v. Ullman* case;<sup>93</sup> *Poe* probed the constitutionality of state laws prohibiting birth control, and since then, in *Griswold v. Connecticut*, the Supreme Court came to side with Harlan's view

87. See *Skinner v. Oklahoma*, 316 U.S. 535, 541 (1942) (regarding forced sterilization).

88. *Dobbs v. Jackson Women's Health Org.*, 597 U.S. 215, 237 (2022) (quoting *Timbs v. Indiana*, 586 U.S. 146, 150, (2019) (slip op., at 3) (internal quotation marks omitted); *McDonald v. City of Chicago*, 561 U.S. 742, 764, 767 (2010) (internal quotation marks omitted); *Washington v. Glucksberg*, 521 U.S. 702, 721 (1997) (internal quotation marks omitted)).

89. *Washington v. Glucksberg*, 521 U.S. 702, 721 (1997) (quoting *Palko v. Connecticut*, 302 U.S. 319, 325 (1937)). Note also that *McDonald v. City of Chicago* draws its language from *Glucksberg*.

90. See *Palko v. Connecticut*, 302 U.S. at 320, 322, 328.

91. *Id.* at 325.

92. See, e.g., *Benton v. Maryland*, 395 U.S. 784, 794 (1969) (incorporating protection against double jeopardy), *Duncan v. Louisiana*, 391 U.S. 145, 149 (1968) (incorporating the right to trial by jury in criminal cases).

93. See *Washington v. Glucksberg*, 521 U.S. 702, 767–68 (1997).

regarding contraception.<sup>94</sup> While reaffirming how concepts of fundamental rights have shifted, this also connects to precedential discussions of reproductive matters<sup>95</sup> and “emanations” and “penumbras”<sup>96</sup> from the Bill of Rights and Fourteenth Amendment that militate in favor of considering reproductive self-determination a fundamental right.

Both the *Dobbs* majority and Justice Souter’s *Glucksberg* concurrence discuss and maintain the reproductive protection established 1942’s *Skinner v. Oklahoma* regarding whether state use of sterilization as a criminal penalty violated the Fourteenth Amendment Equal Protection Clause. The *Skinner* majority determined in part that the reproductive system was such a private personal matter that destroying it for punishment would be so injurious and irreversible as to violate Equal Protection for persons convicted of the relatively petty crimes for which sterilization was applied.<sup>97</sup>

An observer with biology and understanding of the risks of childbearing at top of mind can quickly connect *Skinner*’s ruling to the fact that pregnancy and childbearing can contribute to secondary infertility. In both the United States and on a world scale, more than one out of ten women suffer secondary infertility after a successful pregnancy.<sup>98</sup> Given the court’s apparent tradition of protecting the reproductive system and the privacy of reproductive choice (in terms of contraceptives), the *Dobbs* court *could* have easily looked at precedents and determined that abortion laws ought face judicial scrutiny stricter than simple rational basis review. However, pure “transcendental nonsense” allowed courts to “choose their own adventure.”

3. IN DETERMINING THAT ABORTION-RESTRICTING LAWS ARE HISTORIC TRADITIONS,  
*DOBBS* DRAWS FROM AN ARCHAIC CULTURE THAT BORE REPREHENSIBLE VIEWS OF  
 WOMANHOOD

Coverture, from English common law, held that the legal existence of a woman is suspended during any time of marriage, with the woman’s rights and interests entirely subsumed under the husband’s prerogative.<sup>99</sup> Americans’ continued observance of coverture throughout the 19<sup>th</sup> Century easily explains why, as *Dobbs* states, “no one, as far as we are aware, argued that the [abortion-prohibiting] laws

94. See *Poe v. Ullman*, 367 U.S. 497, 498, 522–523 (1961); see also *Griswold v. Connecticut*, 381 U.S. 479, 484–86 (1965).

95. See *Skinner v. Oklahoma*, 316 U.S. 535, 541 (1942).

96. *Griswold v. Connecticut*, 381 U.S. 479, 484 (1965).

97. *Skinner*, 316 U.S. at 541–42 (1942).

98. WHO, *More Than a Third of Women Experience Lasting Health Problems After Childbirth, New Research Shows*, Dec. 7, 2023, <https://www.who.int/news/item/07-12-2023-more-than-a-third-of-women-experience-lasting-health-problems-after-childbirth> [https://perma.cc/P5VU-899E]; PENN. MED. LANCASTER GENERAL HEALTH, *Secondary Infertility*, <https://www.lancastergeneralhealth.org/services-and-treatments/fertility/infertility-causes/secondary-infertility> [https://perma.cc/8YUV-EAAA] (last visited Dec. 11, 2024).

99. See Reva B. Siegel, “*The Rule of Love*”: *Wife Beating as Prerogative and Privacy*, 105 YALE L.J. 2117, 2122 n. 16, 2166 n. 179 (1996).

[19<sup>th</sup> Century Americans] enacted violated a fundamental right.<sup>100</sup> Yet the *Dobbs* majority cherry picks the tradition of abortion laws and ignores the tradition of coverture. This one-sided illustration of history and traditions is a major threat posed by “transcendental nonsense.” In contrast, as displayed by the court majorities in *Griswold* and *Roe*, the Supreme Court *does* have the license to leave traditions with cruel practices in the past and instead take into account the more recent traditions, voices, facts, and understandings.

In conclusion, decision-making rooted in a search for precedents can lead to different court rulings depending on which precedents are selected, and the use of history to overturn more recent court rulings threatens dredging up ugly elements of U.S. history. This paper does not offer a vision of a perfect jurisprudence that could answer questions with absolute consistency across cases. Instead, this Note advocates for a more “functionalist” approach that takes into account modern health medicine empirics in order to avoid absurdity. And this requires reliable scientific guidance for the court.

### III. FUNCTIONALIST CONSTITUTIONAL APPROACHES THAT RECOGNIZE HOW PRE-VIABILITY ABORTION RESTRICTIONS SADDLE WOMEN WITH DUTIES AND LIABILITIES NEVER IMPOSED UPON MEN PROVIDE ROUTES TO JUDGING ABORTION RIGHTS UNDER GREATER SCRUTINY

Whether by recognizing an intrinsic right to privacy in reproduction, a right to decisions affecting bodily integrity and destiny, a right to freedom from restraint, or a right to maintain a healthy reproductive system, our legal traditions have already demonstrated paths to scrutinizing abortion restrictions under greater scrutiny than the *Dobbs* court recognized.<sup>101</sup> These *are* available to jurists seeking to maintain Supreme Court precedent, and taking a functionalist approach that considers the ethical implications of health effects of unwanted, forced childbearing would better serve citizens’ health. This is not to say that had today’s Supreme Court taken health science into account, *Dobbs* would necessarily have come out the other way; rather, this Note recognizes that the court does have the power to choose its constitutional approach and that a functionalist approach can justify recognizing reproductive choice as an element of one or more undisputed fundamental rights.

#### A. JUSTICE KAGAN’S DISSENT CITES NUMEROUS OCCASIONS WHEN THE SUPREME COURT HONORED A FUNDAMENTAL RIGHT TO CONTROL ONE’S OWN PERSON

“‘No right,’ in this Court’s time-honored view, ‘is held more sacred, or is more carefully guarded,’ than ‘the right of every individual to the possession and

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100. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 253 (2022).

101. See NAT’L WOMEN’S L. CTR., *Roe v. Wade and the Right to Abortion*, [https://nwl.org/wp-content/uploads/2015/10/nwlc\\_roe\\_abortion\\_factsheet.pdf](https://nwl.org/wp-content/uploads/2015/10/nwlc_roe_abortion_factsheet.pdf) [<https://perma.cc/3NZ2-ZJ8S>]; see also Michele Goodwin, *No, Justice Alito, Reproductive Justice Is in the Constitution*, N.Y. TIMES, June 26, 2022, <https://www.nytimes.com/2022/06/26/opinion/justice-alito-reproductive-justice-constitution-abortion.html> [<https://perma.cc/Z7SB-C5W4>].

control of his own person.”<sup>102</sup> In quoting this powerful enunciation from the 1891 *Union Pacific R. Co. v. Botsford* case, Justice Kagan undercuts any argument that a woman who chooses to engage in sexual intercourse has invited all of the liabilities that could potentially arise from it (e.g., pregnancy, secondary infertility). *Botsford* probed whether a personal injury plaintiff could be coerced by the state “to submit to a surgical examination as to the extent of the injury sued for”; the court concluded that the state does not have the power to do that, as it would override the most sacred right to be in control of one’s own person.<sup>103</sup> The plaintiff’s volitional step in engaging in litigation did not diminish the right to maintain control of one’s person, and neither should sexual activity diminish that right for a woman.

Justice Kagan then cites various precedents “restrict[ing] the power of government to interfere with a person’s medical decisions or to undergo medical procedures or treatments.”<sup>104</sup> Though the state had a rational basis, “the community’s vital interests in law enforcement[.]” for surgically searching a defendant for a bullet in *Winston v. Lee*, it was not compelling enough to overcome the bodily autonomy right of the defendant who was suspected of armed robbery.<sup>105</sup> Even in prison settings, where constitutional rights are commonly attenuated given the need to maintain safety, a convicted felon’s right against unwanted antipsychotic medication must be carefully weighed, because forcible injection “represents a substantial interference with . . . liberty” and because the drugs bear risk of “serious, even fatal, side effects.”<sup>106</sup> Accordingly, even if protecting fetal health is a rational basis for law, it would make sense to weigh this interest against the traditionally revered right to bodily security.

#### B. AN ETHICS-MINDED FUNCTIONALIST CONSTITUTIONAL APPROACH WOULD TAKE INTO ACCOUNT HOW NEW ABORTION RESTRICTIONS THREATEN HARM TO PREGNANT PERSONS’ HEALTH, TO RACIAL HEALTH EQUITY, AND TO MEDICAL PROVIDERS’ BEST PRACTICES

State-mandated pregnancy will exacerbate already-existing threats of “gestational diabetes, pre-eclampsia, hemorrhaging, gestational hypertension, [and] ectopic pregnancy”<sup>107</sup>; furthermore, “an American woman is 14 times more likely to die by carrying a pregnancy to term than by having an abortion.”<sup>108</sup> Shortly before *Dobbs* and before the Covid-19 pandemic,<sup>109</sup> the United States specifically

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102. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 379 (2022) (Kagan, J., dissenting) (quoting *Union Pacific R. Co. v. Botsford*, 141 U.S. 250, 251 (1891)).

103. *Union P. R. Co. v. Botsford*, 141 U.S. 250, 251 (1891).

104. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 379 (2022).

105. *Winston v. Lee*, 470 U.S. 753, 755, 759, 766–767 (1985).

106. *Washington v. Harper*, 494 U.S. 210, 229, 236 (1990).

107. Goodwin, *supra* note 101.

108. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 379 (2022) (citing *Whole Woman’s Health v. Hellerstedt*, 579 U.S. 582, 618).

109. Considering how the pandemic upheaved medical data, making numbers from 2020–2022 less indicative of general trends, this Note looks to numbers from shortly before the pandemic to gauge a more generalizable trend.

had the worst rate of maternal morbidity among similarly wealthy nations.<sup>110</sup> Moreover, as abortive services are restricted, poor women will suffer the most, which will wedge an even greater divide among health outcomes between races.<sup>111</sup>

Professor Michele Goodwin explains how the unanimous *Skinner* decision derived in part from an accounting of the inequality produced by laws that applied forced sterilization, because the punishment was enforced against poor and vulnerable classes of American men.<sup>112</sup> *Skinner* dictated back in 1942 that “strict scrutiny of the classification which a State makes in a sterilization law is essential, lest unwittingly, or otherwise, invidious discriminations are made against groups or types of individuals.”<sup>113</sup> Given that as of 2022, Black women were already “over three times as likely to die by carrying a pregnancy to term as white women”<sup>114</sup> and that in states likely to pass new bans, twice as many single mothers were uninsured as single mothers in other states<sup>115</sup> (signaling that women of lesser economic means and lesser medical protection were particularly threatened by new abortion bans), the *Dobbs* court *could* have used empirics and the *Skinner* analysis to maintain the right established in *Roe*—because stricter abortion laws will, by law, increase inequality.

Furthermore, consider that, ideally, a patient would meet with a provider and learn about a medication’s side effects before taking it. Then consider that over the six months following *Dobbs*, “the total number of provisions of medications for *self-managed* abortion increased by [27,838] (95% credible interval . . .) vs what would have been expected based on pre-*Dobbs* levels.”<sup>116</sup> As discussed in I. C.i *supra*, visits to emergency care following a self-managed medication abortion often involve seeking information about the medication procedure’s after effects; a rise in self-managed medication abortions thus contributes to the knowledge gap, likely to leave some women unsure whether bleeding and discomfort will simply pass or are signs of emergency. Provision of the medication during an in-person (or at least telehealth) visit would reduce this knowledge gap, and retaining a relationship with the provider would allow for the best information sharing; however as new abortion restrictions encourage discreet, self-managed attainment of the abortion pill and/or telehealth followed by losing contact with that provider, women are less likely to have a trusted caretaker throughout the abortion process.

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110. *Worldwide Maternal Mortality Rates*, ONE HEALTH TRUST, [https://onehealthtrust.org/publications/infographics/worldwide-maternal-mortality-rates/\[https://perma.cc/4RE3-RPXC\]](https://onehealthtrust.org/publications/infographics/worldwide-maternal-mortality-rates/[https://perma.cc/4RE3-RPXC]) (last visited Nov. 28, 2024); *Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*, THE COMMONWEALTH FUND, <https://www.commonwealthfund.org/publications/issue-briefs/2020/nov/maternal-mortality-maternity-care-us-compared-10-countries> [https://perma.cc/9Y4C-WAX2] (last visited Apr. 5, 2025).

111. Goodwin, *supra* note 101.

112. *Id.*

113. *Skinner*, 316 U.S. at 541 (emphasis added).

114. Goodwin, *supra* note 101.

115. See GENDER EQUITY POL’Y INST., *The State of Reproductive Health in The United States* (Jan. 19, 2023) at 3.

116. Abigail R. A. Aiken et al., *Provision of Medications for Self-Managed Abortion Before and After the Dobbs v Jackson Women’s Health Organization Decision*, 331 JAMA 1558, 1558 (2024).

At the same time, in-person obstetrician-gynecologists (Ob/Gyns) in states with total bans (with exceptions) report needing to wait until patients approach permanent injury or death before providing abortive care.<sup>117</sup> Many of these Ob/Gyns report wanting to practice in other states, which could exacerbate a growing trend in “maternity care deserts.”<sup>118</sup> Furthermore, Ob/Gyns in training in such states would need to travel to learn all the skills their trade requires.<sup>119</sup> Finally, as discussed in the O’Neill Health Law Colloquium in 2024, *Dobbs* has introduced a new kind of conflict of interest in hospitals as general counsels seek the best path to avoid criminal liability by directing clinicians to wait until evidence showing certainty of impending serious injury or death arises *before* treating a mother suffering a miscarriage or other maternity-related emergency, whereas the clinician’s preference would be provide health-protecting service at a point of high probability (e.g., “most likely”) before “certainty.”

C. A CONTEMPORARY, FUNCTIONALIST FORMULATION OF THE RIGHT TO REPRODUCTIVE SELF-DETERMINATION COULD TAKE INTO ACCOUNT ALL THE MATERIAL DISCUSSED IN III.A-B, *SUPRA*, AS WELL AS FACTS OF HUMAN DEVELOPMENT

In 1981, Justice Rehnquist applied simple functionalism regarding pregnancy in his opinion upholding statutory rape laws that punish men but not women: “Because virtually all of the significant harmful and inescapably identifiable consequences of teenage pregnancy fall on the young female, a legislature acts well within its authority when it elects to punish only the participant who, by nature, suffers few of the consequences of his conduct.”<sup>120</sup> This should be a vital fact in any majority ruling on the questions of abortion rights and whether pregnant mothers can act according to their own beliefs about when exactly human life begins, a question neither science nor legislatures can answer with certainty. Rehnquist’s consideration of this vital fact represents the kind of ethical inquiry an appellate judge should pursue while weighing which case precedents are best fit to follow in an instant case.

To consider the ethical implications of reversing the *Roe* and *Casey* precedents, the court should weigh the simple fact that *all* of the energy and body mass constituting a newborn come from the mother. The court should be aware of the stages of brain growth and should account for the fact that the prefrontal cortex—the “seat of consciousness” that is so much larger than in other primates—does not significantly develop until the second trimester.<sup>121</sup> In other words, the court should

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117. Kelly Baden, Joerg Dreweke & Candace Gibson, *Clear and Growing Evidence That Dobbs Is Harming Reproductive Health and Freedom*, GUTTMACHER INST., <https://www.guttmacher.org/2024/05/clear-and-growing-evidence-dobbs-harming-reproductive-health-and-freedom> [<https://perma.cc/K6WN-K2NV>].

118. *Id.*

119. Amirala S. Pasha et al., *The Impact of Dobbs on US Graduate Medical Education*, 51 J. L. MEDICINE & ETHICS 497, 497 (2023).

120. Michael M. v. Sonoma County Superior Court, 450 U.S. 464, 466 (1981).

121. See, e.g., Bill Hathaway, *Mid-pregnancy May Be Defining Period for Human Brain*, YALENEWS (Oct. 4, 2021), <https://news.yale.edu/2021/10/04/mid-pregnancy-may-be-defining-period-human-brain> [<https://perma.cc/T7DZ-58TD>].

examine just how rational state claims to fetal personhood are—questioning whether the basis of fetal personhood can be rationally imposed (*without* invoking a specific spiritual belief) on all residents of a state.

None of this is to say that the *Dobbs* decision would have come out differently had these justices listened to more scientists. Instead, this is to show that there *is* a jurisprudential path available toward deciding that the concept of fetal personhood is too tenuous to automatically outweigh interests in personal bodily security and control. With this in mind, let us review examples of past decisions that took influence from the scientific community.

#### IV. HEALTH SCIENCE'S INFLUENCE ON PAST SUPREME COURT OPINIONS OFFERS A PROMISING FUNCTIONALIST MODEL FOR MODEST, ETHICAL, REALITY-BASED JURISPRUDENCE

After describing the many benefits of the right protected by *Roe* and *Casey*, and after warning of the predictable ills posed by the *Dobbs* decision, Justice Kagan declares, “The Court reverses course today for one reason and one reason only: because the composition of this Court has changed.”<sup>122</sup> As discussed in this Note’s opening, today’s Supreme Court has a more homogeneous academic history and jurisprudential philosophy than that of the *Roe* court; this will not change soon. However, as will be discussed in Part V, *infra*, options are available to bring voices with scientific expertise closer to the ears of justices whose lives have focused on history, philosophy, and non-functionalist constitutionalism. Past Supreme Court opinions involving health sciences and fundamental rights show how a closeness with scientific expertise likely informs a justice’s intuitions and also show that justices ought seek guidance when making decisions involving technological predictions.

##### A. JUSTICE BLACKMUN’S HISTORY SERVING THE MEDICAL COMMUNITY EVIDENCES HIS INTIMATE UNDERSTANDING OF THE DOCTOR–PATIENT RELATIONSHIP THAT INFORMED HIS *ROE* OPINION

While accepting an award from the American Society of Law and Medicine, Justice Blackmun described his longtime “sympathetic attitude toward the medical profession and for the medical mind,” and in 1989, he said, “If I had it to do over again, I’d go to medical school.”<sup>123</sup> Justice Blackmun graduated from Harvard College with a mathematics major,<sup>124</sup> suggesting he had a mind well fit for understanding physical nature—how limits, thresholds, constants, probabilities, and particles create the world around and within us. This is amenable to understanding how, *physically*, human life develops along a spectrum, with the beginning of “personhood” being a rather subjective supernatural concept in contrast to the objectively observable effects of pregnancy on a woman. This background

122. *Dobbs v. Jackson Women’s Health Org.*, 597 U.S. 215, 364 (2022) (Kagan, J., dissenting).

123. Francis Helminski, *Law, Medicine, and Justice Blackmun*, 69 *MAYO CLINIC PROC.* 698, 698 (1994).

124. *Id.*

knowledge provided more fulsome and ethics-informed decision making than simply looking back at court precedents and obsolete, inequitable gender traditions.

Furthermore, before his appointment as a judge, Justice Blackmun served as counsel to the Mayo Clinic for nine years.<sup>125</sup> Over that time, he was exposed to the clinic's groundbreaking work in, for example, identifying cortisone, innovating in open-heart surgery, and treating polio.<sup>126</sup> Over the summer before he wrote the *Roe* opinion, Justice Blackmun researched historical attitudes on abortion care at the Mayo Clinic's Plummer Library,<sup>127</sup> and considering how our understandings of biology had changed since that history, Justice Blackmun recognized a "right of the physician to administer medical treatment according to" professional judgment.<sup>128</sup>

Emeritus Professor of Legal Medicine at Harvard William Curran stated *42 years ago* that the environments of doctors and lawyers had radically diverged, impeding mutual understanding. He therefore lauded Justice Blackmun's work integrating a medical perspective into constitutional interpretation.<sup>129</sup> For the sake of Americans' health and bodily security, future courts would be well served follow Justice Blackmun's model and consider a broad range of newly available knowledge and professional practice rather than holding fast to "transcendental nonsense" and traditions developed before, for example, modern cell theory.

B. FURTHER PRIOR OPINIONS ILLUSTRATE A SUPREME COURT THAT  
READILY UTILIZED HEALTH SCIENCES AND PREDICTABLE SOCIAL  
OUTCOMES TO REACH CAPACIOUSLY INFORMED CONCLUSIONS

*Dobbs*'s overlooking of scientific expertise regarding a question of biological interest marked a rather abrupt shift given that even as late as the 2010s, justices specifically examined scientific expertise to arrive at majority decisions in medically related cases. The majority and dissenting opinions in *Moore v. Texas* (2017) illustrate a debate over the eminence of medical input versus justices' judgments of "societal standards of decency."<sup>130</sup> The *Moore* majority relied on modern experts' qualifiers for mental disability to determine that Texas used outdated standards promoting "lay perceptions of intellectual disability" when it decided that the convicted appellant could face the death penalty.<sup>131</sup> The dissent (made up of three *Dobbs* majority members) argued that the court's decision on this question should *not* rely upon a "medical assessment of clinical practice."<sup>132</sup> This dissent does prudently point out that the DSM-5 cautions that its information

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125. *Id.*

126. *Id.*

127. *Id.*

128. *Roe v. Wade*, 410 U.S. 113, 165–66 (1973); *see also* Helminski, *supra* note 123, at 699.

129. *See* Helminski, *supra* note 123, at 699 (citing William J. Curran, LAW, MEDICINE, AND FORENSIC SCIENCE 20–21 (1982)).

130. *See* Linda Greenhouse, *The Supreme Court and Science: A Case in Point*, 147 DAEDALUS: J. AM. ACAD. ARTS & SCIS. 28–29 (2018).

131. *Id.*; *see also* *Moore v. Texas*, 581 U.S. 1, 2, 12, 18–19 (2017).

132. *Moore*, 581 U.S. at 28–29.

may not perfectly fit with questions of law,<sup>133</sup> but the dissent nevertheless portended that a court run in its philosophical mold would attenuate friendliness to scientific input.

Looking back to 2016, *Whole Woman's Health v. Hellerstedt* illustrates varying applications of science at the trial, circuit, and high court stages. When Texas's new law placing extra requirements on abortion providers (purportedly to benefit a mother's health) was challenged,<sup>134</sup> the trial judge reviewed expert evidence while applying *Casey's* "undue burden" test<sup>135</sup> and found that the evidence entered into record showed no benefit to the mother's health or life.<sup>136</sup> On appeal, the Fifth Circuit set aside the district judge's finding of fact, instead giving unquestioning deference to the state's evidence and suggesting that the trial court had overstepped its bounds in blocking the legislation.<sup>137</sup> The Fifth Circuit stated that abortion regulations ought only receive "rational basis review, not *empirical* basis review,"<sup>138</sup> suggesting that a district court should not weigh potential medical benefits while conducting "undue burden" review; this contravened *Casey's* mandate.<sup>139</sup> Speaking for the *Hellerstedt* Supreme Court majority, Justice Breyer clarified that the district judge was indeed correct to consider the science at hand;<sup>140</sup> Justice Breyer then proceeded to review science in the record and "demolishe[d]"<sup>141</sup> the Texas legislature's claim. This was a win for both functionalist constitutionalism and reproductive self-determination.

With *Skinner* having established the tradition far back in 1942, empirics and future effects of laws *should* matter when the court probes rights touching on human health and bodily security. In carrying this tradition forward, however, given that most judges have not devoted as much time to studying statistics or natural sciences, they must be careful to recognize where their knowledge is lacking.

### C. A 1983 DISSENT BY JUSTICE O'CONNOR EMPHASIZES WHY JUDGES HAVE AN ETHICAL DUTY TO RECOGNIZE THEIR EDUCATIONAL LIMITATIONS AND SEEK EXPERT COUNSEL WHEN ENGAGING MATTERS THAT BLEND SCIENCE AND LAW

In her dissent to the 1983 *Akron* ruling that threw out the Ohio city's requirement for a 24-hour waiting period between requesting and receiving abortive

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133. *Id.* at 28.

134. See *Whole Woman's Health v. Hellerstedt*, 579 U.S. 582, 590–91 (2016).

135. *Planned Parenthood of Southeastern Pennsylvania v. Casey* maintained *Roe's* right to receive abortion care but established a new test to determine the constitutionality of abortion restrictions: the "undue burden" test, which asked the Court to balance a regulation's burden on pregnant persons versus the expected benefits in protecting the health of the mother and fetus. See *Planned Parenthood v. Casey*, 505 U.S. 833, 846 (1992).

136. See *Hellerstedt*, 579 U.S. at 590–91.

137. See *Greenhouse*, *supra* note 130, at 34.

138. *Planned Parenthood of Greater Texas Surgical Health Services v. Abbott*, 748 F.3d 583, 596 (5th Cir. 2014) (emphasis in original).

139. *Hellerstedt*, 579 U.S. at 582.

140. *Id.* at 609.

141. *Greenhouse*, *supra* note 130, at 35.

care, Justice O'Connor wrote, "[R]ecent studies have demonstrated increasingly earlier fetal viability. It is certainly reasonable to believe that fetal viability in the first trimester of pregnancy may be possible in the not too distant future."<sup>142</sup>

The study she cited regarded extremely early third-trimester premature births; survival rates had improved from 2 to 10 percent in that time span.<sup>143</sup> However, today, 40 years later, we have not seen viability move earlier than the very end of the second trimester;<sup>144</sup> it does not even approach the first. The lungs do not reach an anatomic threshold that permits normal or mechanically assisted breathing before 23–24 weeks.<sup>145</sup>

The Justice's misguided expectations point to how a scientist would have likely interpreted those study results differently. Scientists train in understanding and utilizing physical thresholds and constants. For example, no matter how much technology improves, matter will not travel at the speed of light; it is a strict physical limit. Human physiology has limits as well, such as that anatomic threshold permitting assisted breathing. Judges might see extraordinary technological advances in, for example, the abilities of computer chips, and they may think we can make similar improvements in biotechnology. But with such expectations, judges would not be accounting for differences between the physical matter at play: the relatively simple chemical make of computer chips and the *two-digit* code of computer programming versus the extraordinary complexity of human biochemistry and the twenty amino acids that code for biological proteins. Such complexity limits the flexibility and adaptability of human systems, making it less likely that medical technology could improve as quickly as Justice O'Connor expected.

Judges ought guard against faulty inferences by reaching out for expert guidance. While amici briefs ideally inform the court, judges may have formed (whether consciously or not) antipathetic relationships with advocate groups that seek to be friends of the court. With that in mind, we next turn to ideas for building relationships between judges and trusted sources with needed expertise.

#### V. BY DEFERRING TO SCIENTIFIC EXPERTS, AND PERHAPS BY SEEKING CLERKS WHO HAVE GREATER BIOLOGICAL HEALTH KNOWLEDGE, JUDGES CAN BETTER SERVE THE PUBLIC

In his 2013 concurrence to the unanimous decision barring the patenting of genetic sequences,<sup>146</sup> Justice Antonin Scalia humbly added, "I join the judgment of the Court, and all of its opinion except . . . some portions of the rest of the

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142. *City of Akron v. Akron Ctr. for Reprod. Health*, 462 U.S. 416, 457 (1983) (O'Connor, J., dissenting).

143. *Greenhouse*, *supra* note 130, at 28, 31.

144. *Understanding and Navigating Viability*, THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, <https://www.acog.org/advocacy/facts-are-important/understanding-and-navigating-viability> [<https://perma.cc/9VZM-85MV>] (last visited Mar. 15, 2025).

145. *Greenhouse*, *supra* note 130, at 31 (citing Brief of the American Medical Association et al. as Amici Curiae in Support of Appellees at 7, *Webster v. Reproductive Health Services, Inc.*, 492 U.S. 490 (1989)).

146. See *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 580 (2013).

opinion going into fine details of molecular biology. I am unable to affirm those details on my own knowledge[.]”<sup>147</sup> As wonderful as it is to see a justice diagnose the limits of his knowledge, this Note proposes that appellate judges<sup>148</sup> should have quick access to scientific experts they know and trust. One of Scalia’s former clerks, now a professor at Georgetown University Law Center, told his Administrative Law students in 2024 that Justice Scalia stated he always needed to have at least one clerk with a “liberal” constitutional approach.<sup>149</sup> With these anecdotes and the foregoing discussion in mind, this Note proposes three ideas for bringing scientific expertise and perspective into a judge’s chambers to increase interdisciplinary, scientifically informed understanding and consideration of real-life impacts of court opinions. Guiding these suggestions is the notion that, whereas our justice system relies on the “adversarial system,” scientific expertise should ideally be objective and friendly. As wonderful as it would be for judges to be humble and to make a fulsome evaluation of the ethical and medical implications of the rulings and the precedents they cite, the following are policy proposals that Congress could take up to evoke more fulsome high-court decisions, avoiding the non-functional “transcendental nonsense” approach.

The Note author invites readers to recognize that this Note was originally researched and drafted in 2024. In the Note author’s opinion, the federal Legislative and Executive branches are unlikely to pursue the following adjustments to judicial staffing. Though, with the programs described *infra* currently still standing, the author presents them as recommended for future times of more stable and efficacious federal governance.

A. THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF  
SCIENCE’S<sup>150</sup> “COURT APPOINTED SCIENTIFIC EXPERTS” (CASE) PROGRAM  
HAS HELPED STATE, FEDERAL DISTRICT, AND ADMINISTRATIVE LAW  
JUDGES IDENTIFY AND RECEIVE GUIDANCE FROM HIGHLY QUALIFIED  
SCIENTISTS, ENGINEERS, AND HEALTHCARE EXPERTS FOR OVER 20  
YEARS<sup>151</sup>

Having about twenty-five scientists and engineers on its Recruitment and Screening Panel,<sup>152</sup> CASE is well suited to find non-partisan experts with the specific knowledge a case touches, and judges have provided positive feedback for the program.<sup>153</sup> “Your assistance allowed me to offer to the parties a totally

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147. *Id.* at 596.

148. (meaning both circuit judges and Supreme Court justices).

149. This Note’s author was among the students.

150. The American Association for the Advancement of Science shall be referred to as AAAS from here on.

151. AAAS, COURT APPOINTED SCIENTIFIC EXPERTS (CASE), <https://www.aaas.org/programs/court-appointed-scientific-experts> [<https://perma.cc/M4KJ-UWYP>] (last visited Apr. 5, 2025).

152. AAAS, CASE: RECRUITMENT AND SCREENING PANEL, <https://www.aaas.org/programs/court-appointed-scientific-experts/recruitment-and-screening-panel> [<https://perma.cc/729Z-RF6F>] (last visited Apr. 5, 2025).

153. AAAS, CASE: EXPERIENCE, <https://www.aaas.org/programs/court-appointed-scientific-experts/experience> [<https://perma.cc/XJ2Y-LCKP>] (last visited Apr. 5, 2025).

objective examination of the case by qualified and competent experts,” reports a District of Nebraska judge; “The judges [in this District] would benefit from a presentation about the fine services that AAAS makes available,” reports a Central District of California judge.<sup>154</sup> Thus, the program meets the need for non-adversarial input.

Given that CASE has so far only served federal judges at district and administrative levels, it should be expanded to serve appellate judges as well. Even though facts are ideally determined at trial, when mixed questions of law and fact approach the appellate bench in cases requiring interpretation of scientific data and consensus—or when a district judge misconstrues science as discussed in Section I.C, *supra*—appellate judges could utilize CASE services to better grasp the facts at hand and to better evaluate the lower court for abuse of discretion. (After all, it is likely that a knowledgeable medical professional would quickly spot divergence between the district judge’s mifepristone evaluation and the truth.) This can be indispensable to higher courts as questions that would have previously gone to specialized experts in the Executive Branch under *Chevron* deference instead come to the Judicial Branch.

Funding for CASE initially came from non-profit organizations, but it has switched to a fee-for-service model that ensures scientists receive compensation for aiding a court. Congress can assign greater appropriations for federal courts to pay for CASE services. Even though the incoming 2025 federal legislature may not be interested, current political tumult and the 2018 election suggest that Congress may change significantly in 2026, with many incoming members concerned about a degrading administrative state and eager to fund CASE to make for a well-informed federal judiciary to review administrative rules in the post-*Chevron* era.

#### B. AAAS’S SCIENCE AND TECHNOLOGY POLICY FELLOWSHIP PROGRAM (STPF) BRINGS EXPERT FELLOWS INTO FEDERAL GOVERNMENT TO HELP EVALUATE AND EXECUTE POLICIES RELATING TO FELLOWS’ FIELDS<sup>155</sup>

The program invites prospective fellows into the Judicial Branch to “help federal courts better understand and appreciate the intersection of law with science and engineering,”<sup>156</sup> which is exactly what this Note calls for. The overall program for all federal branches has grown from just seven Capitol Hill fellows in 1973 to now more than 250 fellows per year.<sup>157</sup> However, only *one* fellow currently goes to the Judicial Branch.<sup>158</sup> If more STPF health scientists could work

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154. *Id.*

155. AAAS, STPF OVERVIEW, <https://www.aaas.org/programs/science-technology-policy-fellowships/overview> [https://perma.cc/V7WY-6W8Z] (last visited Apr. 5, 2025).

156. AAAS, JUDICIAL BRANCH FELLOWSHIP, <https://www.aaas.org/programs/science-technology-policy-fellowships/judicial-branch-fellowship> [https://perma.cc/GR9N-52N4] (last visited Apr. 5, 2025).

157. STPF Overview, *supra* note 155.

158. Judicial Branch Fellowship, *supra* note 156.

within the Judicial Branch, their evaluations of the effects of various state abortion regimes could be welcomed by members of a future Supreme Court—or could at least be utilized by current appellate judges who may find other statutory or constitutional violations among post-*Dobbs* laws.

Funding for the program comes mainly from federal grants, contracts, and agreements.<sup>159</sup> Thus, Congress has power to mandate an expansion of the judicial fellowships. And whereas Congress faces electoral pressures preventing many members from voting for, for example, new environmental regulations or new reproductive laws that would limit state power, Congressmembers are more likely to come together behind a non-partisan program seeking to bring truth and expertise into a judge's chambers.

### C. FINALLY, JUDICIAL LAW CLERKS WHO BRING SPECIALIZED SCIENTIFIC SUBJECT MATTER EXPERTISE TO THE JOB WOULD PROVIDE JUDGES WITH A HIGHLY TRUSTED SOURCE OF KNOWLEDGE

While amicus briefs may come from groups bearing philosophies inimical to that of a certain judge, and while judges may be slow to seek or accept guidance from outside their own offices, judges develop intimate relationships with their law clerks—their *students*. Congress has statutory power to regulate circuit and Supreme Court clerks.<sup>160</sup> Thus, in accord with Justice Scalia's maintenance of some ideological diversity among his clerks, Congress should pass legislation requiring that each Supreme Court justice maintain at least one law clerk who brings a background relating to health, physical sciences, or technology—either from their undergraduate studies, professional life, or specialized law school program. Legislation could require that three justices each maintain a clerk specializing in health or biological sciences, that three maintain specialists in environmental science, and that three maintain specialists in technology or computer science. This would provide a mix of legal specialists within the courthouse to provide input on foreseeable controversies. The goal would not be to necessarily push the court to certain decisions; instead, the purpose would be to ensure a wider mix of disciplinary experience and knowledge so that, for example, a crucial point from a science-specific amicus brief—a point that might slip past the notice multiple justices—would be caught and highlighted by specialists among the clerks. This could also continue remedying the nation's initial tradition of separating legal studies from the rest of the academic community.<sup>161</sup> Congress could pass similar regulations of appellate court clerks to make for a more interdisciplinary federal appellate bench overall, aiming to re-increase the ratio of “functionalism” to “transcendental nonsense” considered by the judges.

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159. AAAS, SUPPORTERS & PARTNERS, <https://www.aaas.org/programs/science-technology-policy-fellowships/supporters-partners> [<https://perma.cc/V4E5-N7EV>] (last visited Apr. 5, 2025).

160. 28 U.S.C. § 712 (providing for the hiring of federal circuit court law clerks); 28 U.S.C. § 675 (providing for the hiring of U.S. Supreme Court law clerks).

161. See ROBERT M. COVER, JUSTICE ACCUSED: ANTISLAVERY AND THE JUDICIAL PROCESS 9 (1975).

### CONCLUSION

In sum, these proposals are geared toward effecting a culture change on our highest courts. From the realist era, during which Cohen called for greater functionalism, through the Warren and Burger courts that adapted constitutional law to modern society, and then to our current court that so highly values earlier traditions, American jurisprudence has displayed its capacity to shift among widely diverging approaches to constitutional questions of fundamental rights. With contravening precedent-based judgments arguably in equipoise, greater attention to medical risks and benefits at play can lead the courts to more just decisions.

The next generation of jurisprudence could integrate facts and understandings only now available in the age of modern science as the courts address crucial matters affecting individuals' and environmental health. Making more scientific voices available *to* the courts, and requiring that a minimum number of interdisciplinary science-and-legal voices reside *within* the courthouse, can help effect a long-term change. Recent rulings that have unsettled the healthcare community would not change instantly, and this Note certainly does not claim that, for example, *Dobbs* would have had different rulings had our current justices only listened to certain experts. Nevertheless, a shift toward functionalism and interdisciplinary thinking would provide for better-informed decision-making on science-infused regulatory matters today *and* could open the court to reconsidering reproductive self-determination in the next generation. As Justice Breyer said, our new era demands that science and law work together to best serve the people ruled by law. Doing so should be upheld as an ethical obligation in the legal community.