

No. 24-1942

**In the United States Court of Appeals
for the Seventh Circuit**

JOHN M. KLUGE,

Plaintiff-Appellant,

v.

BROWNSBURG COMMUNITY SCHOOL CORPORATION,

Defendant-Appellee.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN
DISTRICT OF INDIANA, INDIANAPOLIS DIVISION
HONORABLE JANE MAGNUS-STINSON, CASE NO. 1-19-cv-02462

**BRIEF OF *AMICI CURIAE* MEDICAL PROFESSIONALS
SUPPORTING APPELLANT AND URGING REVERSAL**

GERARD V. BRADLEY, ESQ.
3156 ECK HALL
UNIVERSITY OF NOTRE DAME
NOTRE DAME, INDIANA 46556
(574) 631-8385

ROBERT JOSEPH MUISE, ESQ.
AMERICAN FREEDOM LAW CENTER
P.O. Box 131098
ANN ARBOR, MICHIGAN 48113
(734) 635-3756
Counsel of Record

Counsel for Amici Curiae

APPEARANCE & CIRCUIT RULE 26.1 DISCLOSURE STATEMENT

Appellate Court No: 24-1942

Short Caption: Kluge v. Brownsburg Community School Corp.

To enable the judges to determine whether recusal is necessary or appropriate, an attorney for a non-governmental party, amicus curiae, intervenor or a private attorney representing a government party, must furnish a disclosure statement providing the following information in compliance with Circuit Rule 26.1 and Fed. R. App. P. 26.1.

The Court prefers that the disclosure statements be filed immediately following docketing; but, the disclosure statement must be filed within 21 days of docketing or upon the filing of a motion, response, petition, or answer in this court, whichever occurs first. Attorneys are required to file an amended statement to reflect any material changes in the required information. The text of the statement must also be included in the front of the table of contents of the party's main brief. **Counsel is required to complete the entire statement and to use N/A for any information that is not applicable if this form is used.**



PLEASE CHECK HERE IF ANY INFORMATION ON THIS FORM IS NEW OR REVISED AND INDICATE WHICH INFORMATION IS NEW OR REVISED.

(1) The full name of every party that the attorney represents in the case (if the party is a corporation, you must provide the corporate disclosure information required by Fed. R. App. P. 26.1 by completing item #3):

Amici Curiae Medical Professionals (Michael K. Laidlaw, M.D., Quentin L. Van Meter, M.D., Andre Van Mol, M.D.,

Jeffery E. Hansen, Ph.D., Michelle A. Cretella, M.D., and Erin Everitt, Ph.D.)--new

(2) The names of all law firms whose partners or associates have appeared for the party in the case (including proceedings in the district court or before an administrative agency) or are expected to appear for the party in this court:

American Freedom Law Center

(3) If the party, amicus or intervenor is a corporation:

i) Identify all its parent corporations, if any; and

N/A - Amici Curiae are private individuals

ii) list any publicly held company that owns 10% or more of the party's, amicus' or intervenor's stock:

N/A - Amici Curia are private individuals

(4) Provide information required by FRAP 26.1(b) – Organizational Victims in Criminal Cases:

N/A

(5) Provide Debtor information required by FRAP 26.1 (c) 1 & 2:

N/A

Attorney's Signature: /s/ Robert J. Muise Date: June 15, 2024

Attorney's Printed Name: Robert Joseph Muise

Please indicate if you are *Counsel of Record* for the above listed parties pursuant to Circuit Rule 3(d). Yes No

Address: PO Box 131098

Ann Arbor, Michigan 48113

Phone Number: (734) 635-3756 Fax Number: (801) 760-3901

E-Mail Address: rmuise@americanfreedomlawcenter.org

TABLE OF CONTENTS

APPEARANCE & CIRCUIT RULE 26.1 DISCLOSURE STATEMENT

TABLE OF AUTHORITIES iii

AUTHORITY TO FILE 1

IDENTITY AND INTEREST OF *AMICI CURIAE*..... 1

SUMMARY OF THE ARGUMENT 3

ARGUMENT 4

 I. Sex is Binary, Innate, and Immutable..... 4

 II. Science and Medicine Depend Upon a Correct Understanding of Sex. 8

 III. Neither “Gender” nor “Gender Identity” is Sex, and Conflating the Terms Causes Confusion 13

 IV. Placing Safeguards around Students’ Entrance into Gender Affirmative Treatment Promotes Their Health and Safety 15

 V. Policies that Facilitate Social Transitioning Lead Students to Serious Harms from Further Gender-Affirming Interventions. 20

CONCLUSION 27

CERTIFICATE OF COMPLIANCE 32

CERTIFICATE OF SERVICE 33

TABLE OF AUTHORITIES

Cases

<i>Bell v. Tavistock & Portman NHS Found. Tr.</i> [2020] EWHC 3274 (Admin)	25
---	----

Other Authorities

Alice Sullivan, <i>Sex and the Census: Why Surveys Should Not Conflate Sex and Gender Identity</i> , 23 INT’L J. SOC. RSCH. METHODOLOGY 517 (2020).....	6, 17
American Psychiatric Association, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS (5th ed. 2013).....	5, 14
Annelou L. C. de Vries et al., <i>Puberty Suppression in Adolescents with Gender Identity Disorder</i> , 8 J. SEXUAL MED. 2276 (2011).....	25
Annelou L. C. de Vries et al., <i>Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment</i> , 134 PEDIATRICS 696 (2014).....	25
Annie M. Q. Wang, <i>Outcomes Following Gender Affirming Phalloplasty</i> , 10 SEXUAL MED. REVS. 499 (2022)	30
American Psychiatric Association, APA HANDBOOK OF SEXUALITY AND PSYCHOLOGY (2014).....	24
Bronwyn C. Morrish & Andrew H. Sinclair, <i>Vertebrate Sex Determination: Many Means to an End</i> , 124 REPRODUCTION 447 (2002).....	4
Cecilia Dhejne, <i>Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery</i> , 6 PLOS ONE (2011).....	31
Center for Disease Control and Prevention, <i>What is Venous Thromboembolism?</i> , CDC.gov	28
Christel J M de Blok et al., <i>Breast Cancer Risk in Transgender People Receiving Hormone Treatment</i> , 365 BMJ 1652 (2019)	28

Dagmar Wilhelm et al., *Sex Determination and Gonadal Development in Mammals*, 87 *PHYSIOLOGICAL REVS.* 1 (2007).....5

David P. Schmitt, *The Evolution of Culturally-Variable Sex Differences*, in *THE EVOLUTION OF SEXUALITY* (Todd K. Shackelford & Ranald D. Hansen eds., 2015)..... 13, 14

David R. Gagnon MD et al., *Hematocrit and the Risk of Cardiovascular Disease*, 127 *AM. HEART J.* 674 (1994)27

Devita Singh et al., *A Follow-Up Study of Boys With Gender Identity Disorder*, 12 *FRONTIERS IN PSYCHIATRY* 1 (2021).....21

Diane Chen, Ph.D. et al., *Psychosocial Functioning in Transgender Youth After 2 Years of Hormones*, 388 *NEW ENGLAND J. MED.* 240 (2023).....31

Elisabeth DC Sievert et al., *Not Social Transition Status, but Peer Relations and Family Functioning Predict Psychological Functioning in a German Clinical Sample of Children with Gender Dysphoria*, 26 *CLINICAL CHILD PSYCH. & PSYCHIATRY* 79 (2021).....24

Jiska Ristori & Thomas Steensma, *Gender Dysphoria in Childhood*, 28 *INT’L REV. OF PSYCHIATRY* 13 (2016)..... 21, 25

K J MacKelvie et al., *Is There a Critical Period for Bone Response to Weight-Bearing Exercise in Children and Adolescents? A Systematic Review*, 36 *BRIT. J. SPORTS MED.* 250 (2002)26

Keith L. Moore & T.V.N. Persaud, *THE DEVELOPING HUMAN: CLINICALLY ORIENTED EMBRYOLOGY* (7th ed., 2003).....7

Kenneth J. Zucker, *Debate: Different Strokes for Different Folks*, 25 *CHILD & ADOLESCENT MENTAL HEALTH* 36 (2020) 18, 22

Kristina R. Olson et al., *Gender Identity 5 Years After Social Transition*, 150 *PEDIATRICS* 1 (2022)21

Lee Ellis, *Identifying and Explaining Apparent Universal Sex Differences in Cognition and Behavior*, 51 PERSONALITY & INDIVIDUAL DIFFERENCES 552 (2011)13

Lisa Littman, *Rapid-Onset Gender Dysphoria in Adolescents and Young Adults*, PLOS ONE (2018)23

Mariam Arain et al., *Maturation of the Adolescent Brain*, 9 NEUROPSYCHIATRIC DISEASE & TREATMENT 449 (2013)27

Mark Regnerus, *CHEAP SEX: THE TRANSFORMATION OF MEN, MARRIAGE, AND MONOGAMY* (2017)14

Mayo Clinic, *Feminizing Surgery*, MAYOCLINIC.ORG (2022)30

Mayo Clinic, *Masculinizing Surgery*, MAYOCLINIC.ORG (2022).....30

Michael K. Laidlaw et al., *Letter to the Editor: Endocrine Treatment of Gender-Dysphoria/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 104 J. Clinical Endo. & Metab. 686 (2019)21

Michael S. Irwig, *Cardiovascular Health in Transgender People*, 19 REVS. ENDOCRINE & METABOLIC DISORDERS 243 (2018).....28

Milou Cecilia Madsen et al., *Erythrocytosis in a Large Cohort of Trans Men Using Testosterone*, 106 J. CLINICAL ENDOCRINOLOGY & METABOLISM 1710 (2021)27

Nanette Santoro, *Update in Hyper- and Hypogonadotropic Amenorrhea*, 96 J. CLINICAL ENDOCRINOLOGY & METABOLISM 3281 (2011)27

Nathan Huey, *Treating Men and Women Differently: Sex Differences in the Basis of Disease*, HARVARD UNIV. GRADUATE SCH. OF ARTS & SCIS. (Oct. 30, 2018).....10, 11, 12

National Institutes of Health, *Consideration of Sex as a Biological Variable in NIH-Funded Research*11, 15

National Institutes of Health, *How Sex and Gender Influence Health and Disease*.....6, 8

National Institutes of Health, *NIH Policy on Sex as a Biological Variable*12

Neil A. Bradbury, *All Cells Have a Sex: Studies of Sex Chromosome Function at the Cellular Level*, in PRINCIPLES OF GENDER-SPECIFIC MEDICINE: GENDER IN THE GENOMIC ERA (Marianne J. Legato, ed., 3d ed. (2017)).....9, 16

NHS England, *Interim Specialist Service for Children and Young People with Gender Incongruence* (June 9, 2023)19

Norman R. Brown & Robert C. Sinclair, *Estimating Number of Lifetime Partners: Men and Women Do It Differently*, 36 J. SEX RES. 292 (1999).....14

Sasha Ayad, M.Ed., LPC et al., *A Clinical Guide for Therapists Working with Gender-Questioning Youth* (2022)..... 18, 19

Stephen B. Levine, *Informed Consent for Transgendered Patients*, 45 J. SEX & MARITAL THERAPY 218 (2019).....7

T.W. Sadler, LANGMAN’S MEDICAL EMBRYOLOGY (2004)6

Talal Alzahrani et al., *Cardiovascular Disease Risk Factors and Myocardial Infarction in the Transgender Population*, 12 CIRCULATION: CARDIOVASCULAR QUALITY & OUTCOMES (2019).....27

Tracy Madsen et al., *Sex- and Gender-Based Medicine: The Need for Precise Terminology*, 1 GENDER & GENOME 122 (2017) 10, 15

Wylie C Hembree et al., *Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 102 J. CLINICAL ENDOCRINOLOGY & METABOLISM 3869 (2017) 21, 28, 29

AUTHORITY TO FILE

All parties have consented to the filing of this brief. Fed. R. App. P. 29(a)(2).

IDENTITY AND INTEREST OF *AMICI CURIAE*¹

Amici Curiae include doctors and other medical professionals in the areas of pediatrics, pediatric psychology, endocrinology, pediatric endocrinology, and family medicine. Their professional commitments to the well-being of children who report discomfort with their being a boy or a girl lead them to offer their expert opinions in this case, one in which a public middle-school teacher was effectively discharged for dissenting from harmful and unscientific gender-identity policies for children.

Michael K. Laidlaw, M.D., is board-certified in Endocrinology, Diabetes, and Metabolism with over 20 years' experience. He treats patients who detransitioned from their transgender identity and has published numerous articles in peer-reviewed journals and lay publications explaining the harms of gender affirming treatments, spoken to the United Kingdom Parliament on the topic, and served as an expert court witness regarding gender identity.

Quentin L. Van Meter, M.D., is a board-certified Pediatric Endocrinologist in private practice in Atlanta, Georgia, with extensive training in issues of transgender health over the past 40 years. Dr. Van Meter is the immediate past President of the

¹ No counsel for a party authored this brief in whole or in part, and no party, party's counsel, or any person other than *Amici Curiae* or their counsel contributed money intended to fund the preparation or submission of this brief.

American College of Pediatricians, fellow of the Endocrine Society, and member of the Pediatric Endocrine Society. He served as Associate Clinical/Adjunct Professor of Pediatrics at Emory University School of Medicine and the Morehouse Medical College.

Andre Van Mol, M.D., is a board-certified Family Physician and Co-chair of the Committee on Adolescent Sexuality for the American College of Pediatricians. Before establishing his distinguished family practice in Northern California, he served as a U.S. Navy family practice doctor and carrier air wing flight surgeon.

Jeffery E. Hansen, Ph.D., is a Pediatric and Adolescent Psychologist in private practice and the founder and director of The Center for Connected Living, LLC in Olympia, Washington. He holds a B.A. in psychology from the University of California at Berkeley, and an M.A. in psychology and a Ph.D. in clinical psychology from the University of Arkansas. Dr. Hansen completed a post-doctoral fellowship in pediatric psychology at Madigan Army Medical Center in Tacoma, Washington, where he now serves as a senior Pediatric Psychologist and lead for clinical training and education in the Child and Family Behavioral Health Service.² He also serves as Clinical Director at Holdfast Recovery in Prescott, Arizona.

² The views expressed are those of the author and do not reflect the official policy of the Department of the Army, the Department of Defense, the Defense Health Agency, or the U.S. Government.

Michelle A. Cretella, M.D., is a board-certified pediatrician, writer, researcher, and speaker. She is the past executive director of the American College of Pediatricians and is the current co-chair of its Adolescent Sexuality Council.

Erin Everitt, Ph.D., is the President of Advocates Protecting Children (APC), a non-profit (501(c)(3)) educational organization dedicated to fighting the gender industry's predation on children in the form of unethical social and medical transition for the sake of political and financial profit. APC serves and supports parents, families, schools, and churches by providing a variety of educational resources.

SUMMARY OF THE ARGUMENT

The District Court judge wrote that “Mr. Kluge believes that God created mankind as either male or female, that this gender is fixed in each person from the moment of conception, and that it cannot be changed, regardless of an individual's feelings or desires.” Doc. 191 at 3 (quoting Filing No. 15 at 6), RSA-004. Plaintiff's religious beliefs thus prohibit him from addressing a transgender student by their preferred name or by a gendered pronoun which does not correspond to that student's sex. He is conscientiously unable, in other words, to *lie*, even at the price of his livelihood.

Amici take no position on divine causality. They write, not as theologians, but as men and women of science. And the scientific truth is just as Mr. Kluge describes: sex is binary, innate, and immutable.

To lay the groundwork for understanding the nature and risks of gender-affirming treatment, *Amici* first explain the incorrigibility of sex and its overriding importance to science and the practice of medicine. Next, *Amici* describe the concepts of “gender” and “gender identity,” and the problems caused by conflating them with sex. Finally, *Amici* detail the different methods of caring for children with gender dysphoria and outline the grave medical risks associated with gender-affirmative treatment.

ARGUMENT

I. Sex is Binary, Innate, and Immutable.

“The existence of two sexes is nearly universal in the animal kingdom,” a realm that includes *us*—that is, the species *homo sapiens*. Bronwyn C. Morrish & Andrew H. Sinclair, *Vertebrate Sex Determination: Many Means to an End*, 124 REPRODUCTION 447, 447 (2002). In the biological sciences as well as in medical research and practice, the term “sex” refers precisely to the two halves of any species, male and female. The two halves result from the *binary* division of all members, according to whether any individual is suited to play one, or the other, of the two roles in reproduction. “The essential purpose of sexual differentiation, the development of any male- or female-specific physical or behavioral characteristic, is to equip organisms with the necessary anatomy and physiology to allow sexual reproduction to occur.” Dagmar Wilhelm et al., *Sex Determination and Gonadal*

Development in Mammals, 87 PHYSIOLOGICAL REVS. 1, 1 (2007); *see also* American Psychiatric Association, DIAGNOSTIC & STATISTICAL MANUAL OF MENTAL DISORDERS 829 (5th ed. 2013) (“DSM-5”) (defining sex as the “biological indication of male and female (understood in the context of reproductive capacity)”); Aditi Bhargava, Arthur P Arnold, et al., *Considering Sex as a Biological Variable in Basic and Clinical Studies: An Endocrine Society Scientific Statement*, *Endocrine Reviews*, Volume 42, Issue 3, June 2021, Pages 219–258.³

This structural difference for the purpose of reproduction is the *only* widely accepted way of classifying the two sexes.

This definition of sex is clear and stable. It does not require any arbitrary measurable or quantifiable physical characteristics or behaviors to apply. It requires instead a basic understanding of the reproductive system and the reproduction process.

Human beings are either male or female.⁴ This characteristic is *innate*. “[I]n mammals the sexual fate of the organism is cast at fertilization.” Wilhelm et al., *supra*, at 1. The decisive event is the contribution by the father of an “x” or a “y” chromosome: an “X-carrying sperm produces a female (XX) embryo, and a Y-

³ Available at <https://doi.org/10.1210/edrev/bnaa034>.

⁴ “Intersex” is not an additional category that erodes our understanding of sex as male or female based on reproductive roles. “Intersex” is instead an anomalous condition that in fact underscores the norm of male and female.

carrying sperm produces a male (XY) embryo. Therefore, the chromosomal sex of the embryo is determined at fertilization.” T.W. Sadler, LANGMAN’S MEDICAL EMBRYOLOGY 40 (2004). “Males have XY chromosomes, and females have XX chromosomes. Sex makes us male or female.” National Institutes of Health (NIH), *How Sex and Gender Influence Health and Disease*.⁵

Although this sexual dimorphism is typically not apparent to observation until approximately twelve to fourteen weeks of pregnancy, the development of the human being as specifically male or female begins at the onset of life. Even though the very young embryo carries within it the primitive structure of portions of *both* reproductive systems, *male* embryos secrete testosterone from their testicles, which leads to the development of the male reproductive system. Embryonic and thereafter fetal development as male or female is directed from *within*, according to genetic information present in the zygote from the moment of fertilization. There are only and precisely two gametes, two sex cells—male and female. There is no third option, no middle way.

Contrary to an increasingly popular myth, no one can change his or her sex. Sex is, in other words, *immutable*. See Stephen B. Levine, *Informed Consent for Transgendered Patients*, 45 J. SEX & MARITAL THERAPY 218–229 (2019)

⁵ Available at https://orwh.od.nih.gov/sites/orwh/files/docs/SexGenderInfographic_11x17_508.pdf.

(“Biological sex cannot be changed.”). Some people have surgeries which they describe as a “sex-change” operation. Lately, these procedures have acquired in some ideological quarters the name, “gender-confirming” procedures. No matter what they are called, however, they never succeed in providing any patient with the sex organs or the reproductive capacity of a member of the opposite sex. Doing *that* is simply impossible: no man who “transitions” to female ever actually does so, and vice versa. All that these surgeries can possibly provide are poorly to non-functional pseudo-genitalia. These operations nonetheless invariably succeed in making anyone who undergoes them permanently sterile.

Even if modern medicine improved its capacity to engineer sex organs, these operations could still never “change” anyone’s sex. The reason is that no “sex-change” operation even touches the vast multitude of other sex-differentiated characteristics of the human body, psychology, and emotional make-up. The indelible biological differences between male and female go far beyond external genitalia. In fact, they inhabit every one of the human body’s trillions of nucleated cells. “Every cell in your body has a sex—making up tissues and organs, like your skin, brain, heart, and stomach. Each cell is either male or female depending on whether you are a man or a woman.” NIH, *supra*. Sex is in this most profound way indelibly imprinted upon every part of our bodies. Sex is therefore *immutable*.

There are many subsequent events in development that may alter the phenotypic expression of sex. *None* changes anyone's sex.

II. Science and Medicine Depend Upon a Correct Understanding of Sex.

That sex is binary, innate, and immutable is a fundamental reality that anyone doing basic or applied research in the biological sciences (or who teaches them), and anyone who practices medicine, including psychiatry (or who teaches them), presupposes, recognizes, uses, and applies. Keeping up a robust and uncompromised awareness of sex as binary, innate, and immutable is essential to successful work and ethical medicine in all these areas.

The reason why this clarity about sex is crucial can be simply stated: each person's indelible reality as male or female *pervades* the body throughout the life of the individual and is essential for healthy maturation. Until recently, the role of the chromosomes that determine sex had been thought to be strictly limited to the development of reproductive tissues and organs. *See* Neil A. Bradbury, *All Cells Have a Sex: Studies of Sex Chromosome Function at the Cellular Level*, in *PRINCIPLES OF GENDER-SPECIFIC MEDICINE: GENDER IN THE GENOMIC ERA* 285 (Marianne J. Legato, ed., 3d ed. (2017)). Now, "growing evidence attests to the fact that sex chromosomes exert their influence in every cell of the body, and every cell has a sex." *Id.* Each and every cell of a woman's body is *female*. Each and every cell of a man's body is *male*. While the commonalities and similarities of men and

women still far outweigh the differences, keeping in mind the differences are essential to sound research and competent clinical practice.

In an important 2017 journal article, Tracy Madsen and her colleagues wrote:

The completion of the human genome project in 2003 also influenced our understanding of the effects of sex on human biology and disease through the sequencing of all human genes, including those located on sex chromosomes. Understanding the location and function of genes located on sex chromosomes throughout the body's cells, not just in reproductive organs, was critical to understanding that biologic sex not only affects human health and disease via sex steroids and reproductive organs but also affects cells in all organ systems.

Tracy Madsen et al., *Sex- and Gender-Based Medicine: The Need for Precise Terminology*, 1 GENDER & GENOME 122, 123 (2017).

Epidemiologists now understand that “[s]ex differences are present across most disease states and organ systems.” *Id.* “[I]mportant features of an illness . . . may display meaningful differences across the biological sexes. In this way, the actual causes of disease can be more effectively targeted on an individual level.”

Nathan Huey, *Treating Men and Women Differently: Sex Differences in the Basis of Disease*, HARVARD UNIV. GRADUATE SCH. OF ARTS & SCIS. (Oct. 30, 2018).⁶ “Today, the importance of accounting for the variability between male and female biology in research is widely recognized. There exists a clear contribution of biological sex to health outcomes across a wide spectrum of conditions.” *Id.*

⁶ Available at <https://sitn.hms.harvard.edu/flash/2018/treating-men-and-women-differently-sex-differences-in-the-basis-of-disease/>.

This now-universal recognition of sex differences realization goes beyond the truths that only women may develop ovarian cancer and only men, prostate cancer. This realization includes, but transcends, the easily noticed differences in the way that many other common ailments, such as autism and alcoholism, affect men and women. Some common respiratory illnesses, affecting millions of American each year, bear very differently upon women than upon men. For example, “genetics . . . play a significant role in the development of [Chronic Obstructive Pulmonary Disorder].” *Id.*

It is therefore unsurprising that the National Institutes of Health requires consideration of sex in its life sciences research proposals. The NIH states that “[t]here is growing recognition that the quality and generalizability of biomedical research depends on the consideration of key biological variables, such as sex.” NIH, *Consideration of Sex as a Biological Variable in NIH-Funded Research* 1.⁷ “Failure to account for sex as a biological variable may undermine the rigor, transparency and generalizability of research findings.” *Id.*

The NIH sharply distinguishes sex from “gender.” It defines sex as “a biological variable defined by characteristics encoded in DNA, such as reproductive organs and other physiological and functional characteristics,” and “gender” as

⁷ Available at <https://orwh.od.nih.gov/sites/orwh/files/docs/NOT-OD-15-102%20Guidance.pdf>.

“social, cultural, and psychological traits linked to human males and females through social context.” *Id.* The NIH also stresses the far greater significance of sex to “gender” in research. “Consideration of sex may be critical to the interpretation, validation, and generalizability of research findings. Adequate consideration of both sexes in experiments and disaggregation of data by sex allows for sex-based comparisons and may inform clinical interventions.” NIH, *NIH Policy on Sex as a Biological Variable*.⁸

The implications of the “sexed” nature of disease and well-being for medical practice are profound. “Sex is one of the most obvious candidates for a first step towards individualized healthcare. It is both unambiguous in the majority of cases as well as a significant factor in the development and progression of a host of diseases.” Huey, *supra*. As we embark on an era of so-called “personalized medicine,” consideration of the impact of pharmacological therapies on “male” and “female” cells needs to be made. It may turn out that for many drugs, the sex of the target cell is not important, but for some drugs the sex of the target cell may have critical clinical implications.

Ineradicable sex differences pervade human beings in ways that go beyond the natural science of our bodies. Research in and the practice of psychiatry and

⁸ Available at <https://orwh.od.nih.gov/sex-gender/nih-policy-sex-biological-variable>.

psychology depend upon undiminished clarity about the identity of a patient or a research subject as male or female, unchanged from the moment of conception. Clarity and consistency about sex is crucial in psychiatry and psychology for two connected reasons. First, each person's indelible reality as male or female *pervades* the *psyche*, as well as the body, throughout the life of the individual. Second, there is overwhelming scientific evidence that men and women are markedly different across a whole range of cognitive and personality traits, elements of emotional make-up, and aspects of psychological well-being.

Researchers, most prominently including David P. Schmitt, have shown that there are significant differences according to sex in numerous areas, including sexual arousal patterns, attitudes, and behaviors, among many others. *See, e.g.,* David P. Schmitt, *The Evolution of Culturally-Variable Sex Differences*, in *THE EVOLUTION OF SEXUALITY* 221, 222 (Todd K. Shackelford & Ranald D. Hansen eds., 2015). Schmitt references, for example, one comprehensive review essay, which identified sixty-three “psychological sex differences discussed that have been replicated across cultures.” *Id.* at 221 (citing Lee Ellis, *Identifying and Explaining Apparent Universal Sex Differences in Cognition and Behavior*, 51 *PERSONALITY & INDIVIDUAL DIFFERENCES* 552 (2011)). Of course, cultural patterns and social expectations partly explain some of these differences. But Schmitt convincingly shows that these many differences cannot be satisfactorily explained by a patriarchal

(or any other) cultural pattern. “In fact,” Schmitt writes, “most psychological sex differences . . . are conspicuously *larger* in cultures with more egalitarian sex role socialization and greater sociopolitical gender equity.” *Id.* at 222.

Among the most salient of these sex differences are those pertaining to *sex*. The social scientific evidence about frequency of masturbation and pornography use, the number of sexual partners, as well as more qualitative research into the nature of male and female sex drive and their preferred place of sex within the overall pattern of the relationship, confirms that nature, and not just nurture or socialization, explains differences between men and women. *See* Mark Regnerus, *CHEAP SEX: THE TRANSFORMATION OF MEN, MARRIAGE, AND MONOGAMY* 22–23, 140 (2017); Norman R. Brown & Robert C. Sinclair, *Estimating Number of Lifetime Partners: Men and Women Do It Differently*, 36 *J. SEX RES.* 292, 292 (1999) (analyzing why men tend to report more sexual activity than women). That the paraphilias listed in the DSM-5 are, with the partial exception of sadomasochism, almost entirely male phenomena, is further evidence. *See* DSM-5, *supra*, at 685–705. It is perhaps most striking that pedophiles are almost all men.

III. Neither “Gender” nor “Gender Identity” is Sex, and Conflating the Terms Causes Confusion.

Someone’s “gender identity” has no bearing on that person’s sex. Madsen and her colleagues (who argue—unpersuasively, in our view—for greater recognition of the “gendered” nature of disease and health) say that “gender” is a “psychological

and social construct referring to the attitudes, feelings, and behaviors that a person and his or her culture associates with a person's gender concordant with his or her sex at birth." Madsen et al., *supra*, at 122, 124. The NIH defines "sex" as "a biological variable defined by characteristics encoded in DNA, such as reproductive organs and other physiological and functional characteristics. Gender [on the other hand] refers to social, cultural, and psychological traits linked to human males and females through social context." *Consideration of Sex, supra*, at 1.

Sex is innate, fixed, and binary. "Gender identity" denotes a subjective and fluid belief system based on cultural constructs. One's sense of self and one's desire to present to others as a member of the opposite sex have no bearing whatsoever upon the objective biological reality that one is male or female. The difference between sex and "gender" (and "gender identity") is parallel to the difference between ontological realism (the view that reality exists independent of anyone's thoughts or feelings about it), and a pronounced solipsism: reality is what one thinks or wishes it to be.

The terms "sex" and "gender" and "gender identity" are therefore not interchangeable or functionally similar. They surely are conceptually unrelated, even radically different.

Adopting ideological language about gender and sex causes confusion, and not only within science and medicine.

In the school setting, for example, increased emphasis on “gender identity” is sure to confuse children. Policies that permit students to use an opposite-sex bathroom or opposite-sex pronouns reinforce false ideas about the nature of sex. A girl who asks to be treated at school as a boy, to be called “he” and “him” and use the boys’ bathroom and locker room, will be led to think that she can change her sex. And her peers, seeing teachers and administrators “affirming” the girl’s false belief, will be taught the same falsehood.

While the concept that a child could be a “boy in a girl body” (or vice versa) is scientifically untrue, the expression of that feeling is not. It is an idiom used by a person seeking to describe some type of distress to others. There is a diagnosis for this—gender dysphoria.

IV. Placing Safeguards around Students’ Entrance into Gender Affirmative Treatment Promotes Their Health and Safety.

When a child suffers from gender dysphoria, there are three general approaches to treatment. See Kenneth J. Zucker, *Debate: Different Strokes for Different Folks*, 25 CHILD & ADOLESCENT MENTAL HEALTH 36 (2020). One is psychosocial treatment that helps the child align their internal sense of gender with their sex. Another would be to “watch and wait.” This approach allows time and maturity to help the young person align sex and gender through natural desistance, while providing psychological support and therapy as needed and addressing comorbidities. Emerging practice guidelines recommend a version of this called

exploratory therapy, which “does not favor any particular outcome” but “aims to address the distress of gender dysphoric youth rather than correcting any sense of misalignment.” See Sasha Ayad, M.Ed., LPC et al., *A Clinical Guide for Therapists Working with Gender-Questioning Youth* 1, 34 (2022).⁹ The third and most drastic option is starting “gender affirmative treatment.”

Gender affirmative treatment consists of four interventions. First, a child socially transitions. Second, he or she is given puberty blocking medications, which deliberately induce hypogonadotropic hypogonadism, a disease state where the pituitary gland does not send the hormonal signals to the sex glands, preventing them from making testosterone or estrogen. Third, a child is given very high doses of the opposite sex’s hormones. Finally, the child undergoes surgical removal of sex organs and genitalia, such as a double mastectomy for girls or an orchiectomy for boys.

The policy at issue in this case revolves around the first intervention in gender affirmative treatment, social transition. Social transition may involve a child changing her name, pronouns, and appearance to “present” in line with her gender identity. This is an active intervention. See NHS England, *Interim Specialist Service for Children and Young People with Gender Incongruence* 13 (June 9, 2023) (“While

⁹ Available at https://www.genderexploratory.com/wp-content/uploads/2022/12/GETA_ClinicalGuide_2022.pdf.

there are different views on the benefits versus the harms of early social transition, it is important to acknowledge that it is not a neutral act.”).¹⁰

The teacher in this case was primarily concerned with not violating his religious beliefs. But the record reveals as well that he was motivated to avoid the *harms* that Brownsburg School policies would visit upon students who were treated as if they were members of the sex that they imagined themselves to be. *See* 2-ER-193. His proposed accommodation to refer to all students by their surnames reflects his desire to avoid precisely those harms.

This approach to schoolchildren who would repudiate their sex is medically sound. Research shows that a very high proportion of children who experience gender dysphoria will eventually desist, *i.e.*, come to experience a realignment of their internal sense of gender and their body. *See* Jiska Ristori & Thomas Steensma, *Gender Dysphoria in Childhood*, 28 INT’L REV. OF PSYCHIATRY 13–20 (2016) (61–98% desisted by adulthood); Devita Singh et al., *A Follow-Up Study of Boys With Gender Identity Disorder*, 12 FRONTIERS IN PSYCHIATRY 1 (2021) (87.8% desisted). There is no way to know who will desist. “There are no laboratory, imaging, or other objective tests to diagnose a ‘true transgender’ child.” Michael K. Laidlaw et al.,

¹⁰ Available at <https://www.england.nhs.uk/wp-content/uploads/2023/06/Interim-service-specification-for-Specialist-Gender-Incongruence-Services-for-Children-and-Young-People.pdf>.

Letter to the Editor: Endocrine Treatment of Gender-Dysphoria/Gender-Incongruent Persons, 104 J. CLINICAL ENDOCRINOLOGY & METABOLISM 686 (2019).

For the children who would naturally desist, “affirming” interventions derails natural desistance and instead ensures their gender dysphoria is locked in. The Endocrine Society guidelines point out as much: “Social transition is associated with the persistence of [gender dysphoria]/gender incongruence as a child progresses into adolescence.” See Wylie C Hembree et al., *Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline*, 102 J. CLINICAL ENDOCRINOLOGY & METABOLISM 3869, 3879 (2017). A study of 317 transgender youth who had socially transitioned found 94% identified as transgender five years after their initial social transition. See Kristina R. Olson et al., *Gender Identity 5 Years After Social Transition*, 150 PEDIATRICS 1 (2022). Contrasting this with the majority of children who, left alone, naturally desist highlights the impact social transitioning has on children with gender dysphoria.

Because the social transition process may solidify a child’s belief that they are in fact the opposite sex, it can itself be considered a form of iatrogenic harm. See Zucker, *supra*, at 36–37 (“Gender social transition of prepubertal children will increase dramatically the rate of gender dysphoria persistence when compared to follow-up studies of children with gender dysphoria who did not receive this type of psychosocial intervention and, oddly enough, might be characterized as

iatrogenic.”). That is, this type of treatment for gender dysphoria, rather than alleviating the distress, can lock in the gender incongruence.

That is not surprising. It is understandable that a child “presenting” as the opposite sex and reinforced by authority figures like teachers would believe that he or she is destined to go through puberty of the opposite sex. And it would be quite frightening for a boy who believes he is a girl to be turning into a man with all of the adult features that accompany manhood. And the girl who has become convinced that she is a boy will be frightened by the physical changes brought on by womanhood. This fear only increases the distress the child feels and convinces them they are in fact “trapped” in the wrong body.

Another reason to approach school gender-identity policies with caution is the exploding rate at which young people, especially girls, experience what has been termed “rapid-onset gender dysphoria.” See Lisa Littman, *Rapid-Onset Gender Dysphoria in Adolescents and Young Adults*, PLOS ONE (2018).¹¹ As teachers and administrators uniformly use preferred first names and pronouns, gender dysphoria may become more prevalent as “a catch-all explanation for any kind of distress, psychological pain, and discomfort . . . while transition is being promoted as a cure-all solution.” *Id.* Moreover, policies that uniformly allow children to jump to social transition may result in the neglect of other problems that should be addressed head-

¹¹ Available at <https://doi.org/10.1371/journal.pone.0202330>.

on, such as underlying mental health or family issues. *See* APA, *APA HANDBOOK OF SEXUALITY AND PSYCHOLOGY* 257 (2014) (“Premature labeling of gender identity should be avoided,” as “[t]his approach runs the risk of neglecting individual problems the child might be experiencing.”); Elisabeth DC Sievert et al., *Not Social Transition Status, but Peer Relations and Family Functioning Predict Psychological Functioning in a German Clinical Sample of Children with Gender Dysphoria*, 26 *CLINICAL CHILD PSYCH. & PSYCHIATRY* 79 (2021).¹²

V. Policies that Facilitate Social Transitioning Lead Students to Serious Harms from Further Gender-Affirming Interventions.

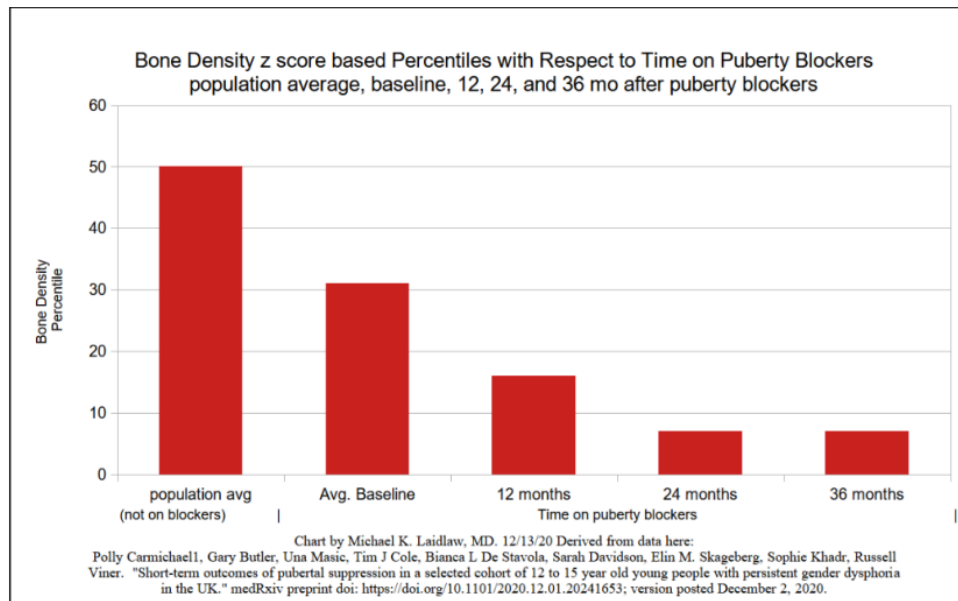
Beyond the harms associated with social transitioning, the three following stages of gender-affirming treatment each pose additional, grave risks to children. These risks are relevant because each step a child takes down the gender-affirming treatment road makes it much more likely they will persist in their gender dysphoria and move on to the next intervention. *See Bell v. Tavistock & Portman NHS Found. Tr.* [2020] EWHC 3274 (Admin) [57] (citing evidence that “of the adolescents who started puberty suppression, only 1.9 percent stopped the treatment and did not proceed to [cross sex hormones]).” Put simply, once a child is placed on the gender-affirming conveyor belt, they are unlikely to get off. Puberty blockers, rather than

¹² Available at <https://doi.org/10.1177/1359104520964530>.

being a “pause” to consider aspects of mental health, are all too often a pathway towards future sterilizing surgeries.

Each intervention carries with it its own harms. Puberty blockers induce a disease state called hypogonadotropic hypogonadism. For females, this stops the ovaries from producing estrogen. For males, this stops the testicles from producing testosterone.

Besides the intended effect of preventing children from undergoing puberty, there are other harms caused by puberty blockers. For example, the lowering of sex hormones during adolescence inhibits bone accumulation during a pivotal time. *See* K J MacKelvie et al., *Is There a Critical Period for Bone Response to Weight-Bearing Exercise in Children and Adolescents? A Systematic Review*, 36 BRIT. J. SPORTS MED. 250, 254 (2002) (“Importantly, about 26% of final adult bone is accumulated during the two years surrounding peak bone velocity,” which is “ages 11.5–13.5 for girls . . . and 13.05–15.05 in boys.”). A study of 44 twelve- to fifteen-year-olds in the UK who were given puberty blockers reveals the extent of the negative effects on bone density:



This puts females, especially, at risk for future osteoporosis and serious fractures. See Nanette Santoro, *Update in Hyper- and Hypogonadotropic Amenorrhea*, 96 J. CLINICAL ENDOCRINOLOGY & METABOLISM 3281 (2011). There may also be negative effects on the brain from inducing hypogonadotropic hypogonadism, since “sex hormones including estrogen, progesterone, and testosterone can influence the development and maturation of the adolescent brain.” Mariam Arain et al., *Maturation of the Adolescent Brain*, 9 NEUROPSYCHIATRIC DISEASE & TREATMENT 449, 450 (2013).

The third stage of gender affirmative therapy involves using hormones of the opposite sex at high doses to attempt to create secondary sex characteristics in the person’s body. Females are given high levels of testosterone. This leads to a much higher risk of a heart attack. See Talal Alzahrani et al., *Cardiovascular Disease Risk*

Factors and Myocardial Infarction in the Transgender Population, 12 CIRCULATION: CARDIOVASCULAR QUALITY & OUTCOMES (2019). They are also susceptible to erythrocytosis, a condition of high red blood cell counts, which is an independent risk factor for cardiovascular disease and coronary heart disease. See Milou Cecilia Madsen et al., *Erythrocytosis in a Large Cohort of Trans Men Using Testosterone*, 106 J. CLINICAL ENDOCRINOLOGY & METABOLISM 1710 (2021); David R. Gagnon MD et al., *Hematocrit and the Risk of Cardiovascular Disease*, 127 AM. HEART J. 674 (1994). Other risks to females taking high-dose testosterone include irreversible changes to the vocal cords, hirsutism, polycystic ovaries, clitoromegaly, atrophy of the lining of the uterus and vagina, and potentially higher risks for ovarian and breast cancer. See Hembree, *supra*, at 3880, 3886–87, 3892.

Males on cross sex hormones receive high doses of estrogen. This “treatment” induces hyperestrogenemia, the condition of elevated blood estrogens. Long-term consequences include increased risk of heart attack and death due to cardiovascular disease. See Michael S. Irwig, *Cardiovascular Health in Transgender People*, 19 REVS. ENDOCRINE & METABOLIC DISORDERS 243 (2018). Also, “[t]here is strong evidence that estrogen therapy for trans women increases their risk for venous thromboembolism over 5 fold.” *Id.* Venous thromboembolism is a blood clot that develops in a deep vein and “can cause serious illness, disability, and in some cases, death.” Center for Disease Control and Prevention, *What is Venous*

Thromboembolism?, CDC.gov.¹³ Other risks of high-dose estrogen for males include a 46-times higher risk of developing breast cancer. *See* Christel J M de Blok et al., *Breast Cancer Risk in Transgender People Receiving Hormone Treatment*, 365 *BMJ* 1652 (2019).

Next, the fourth stage of gender-affirmative treatment is surgical alterations of the body to mimic features of the opposite sex. For females, this may include mastectomies, the surgical removal of what here are otherwise healthy breasts. This surgery results in a permanent loss of the ability to breastfeed and significant scarring. Other types of surgery for females include those of the genitalia and reproductive tract. For example, the ovaries, uterus, fallopian tubes, cervix, and the vagina may be surgically removed. Removal of the ovaries results in sterilization.

Some females may also undergo a phalloplasty, an attempt to create a pseudo-penis. A roll of skin and subcutaneous tissue is removed from one area of the body and transplanted to the pelvis. An attempt is made to extend the urethra or urinary tract for urination through the structure. This transplanted tissue lacks the structures inherent in the male penis which allow for erection, so erectile implants such as rods or inflatable devices are placed within the tube of transplanted tissue in order to simulate erection. *See* Hembree, *supra*, at 3894. The labia may also be expanded to

¹³ Available at <https://www.cdc.gov/ncbddd/dvt/facts.html>.

create a simulated scrotum containing prosthetic objects to provide the appearance of testicles. *Id.*

Complications from this surgery may include urethral stricture, problems with blood supply to the transplanted roll of tissue resulting in possible tissue necrosis, large scarring to the forearm or thigh (where the skin was taken from), infections including peritonitis, and possible injury to the sensory nerve of the clitoris. *See* Mayo Clinic, *Masculinizing Surgery*, MAYOCLINIC.ORG (2022).¹⁴ A recent systematic review and meta-analysis of 1731 patients who underwent phalloplasty found very high rates of complications (76.5%), including a urethral fistula rate of 34.1% and urethral stricture rate of 25.4%. Annie M. Q. Wang, *Outcomes Following Gender Affirming Phalloplasty*, 10 SEXUAL MED. REVS. 499 (2022).

For males, surgery may include removal of the testicles. This is by nature a sterilizing procedure. Further surgeries may be done to create a pseudo-vagina, which is called vaginoplasty. In this procedure, the penis is surgically opened and the erectile tissue is removed. The skin is then closed and inverted into a newly created cavity in order to simulate a vagina. A dilator must be placed in the new cavity long term so that it does not naturally close. Potential surgical complications may include urethral strictures, infection, prolapse, fistulas and injury to the sensory

¹⁴ Available at <https://www.mayoclinic.org/tests-procedures/masculinizing-surgery/about/pac-20385105>.

nerves with partial or complete loss of erotic sensation. See Mayo Clinic, *Feminizing Surgery*, MAYOCLINIC.ORG (2022).¹⁵

Some defenders of social transition policies say that doing so is necessary to lower if not eliminate the risk that a gender dysphoric child might otherwise commit suicide. The scientific evidence does *not* support such claims. On the contrary, one comprehensive study in Sweden examined data from 324 patients over a 30-year time period who had taken opposite sex hormones and undergone reassignment surgery. See Cecilia Dhejne, *Long-Term Follow-Up of Transsexual Persons Undergoing Sex Reassignment Surgery*, 6 PLOS ONE (2011).¹⁶ When followed out beyond ten years, the sex-reassigned group had 19 times the rate of completed suicides and nearly three times the rate of all-cause mortality and inpatient psychiatric care compared to the general population of Sweden. *Id.* More recently, a study of 315 adolescents aged 12 to 20 years old who were taking high-dose hormones of the opposite sex noted “death by suicide occurred in 2 participants.” Diane Chen, Ph.D. et al., *Psychosocial Functioning in Transgender Youth After 2 Years of Hormones*, 388 NEW ENGLAND J. MED. 240 (2023).

¹⁵ Available at <https://www.mayoclinic.org/tests-procedures/feminizing-surgery/about/pac-20385102>.

¹⁶ Available at <https://doi.org/10.1371/journal.pone.0016885>.

CONCLUSION

The policies imposed by Brownsburg schools upon Appellant institutionalize an ideology which places children who experience a sex-discordant gender identification to serious risk of irreparable bodily harm.

These policies are, moreover, based upon a lie; in fact, two of them. One is that someone can be born in the “wrong body.” The other is that one can change one’s sex. The first is a basic metaphysical mistake, for each of us *is* our body: one can no more be “born in the wrong body” than one can be born as the wrong person. The second is and forever shall be technically impossible.

Respectfully submitted,

/s/ Robert J. Muise

Robert J. Muise, Esq. (MI - P62849)

American Freedom Law Center

PO Box 131098

Ann Arbor, Michigan 48113

(734) 635-3756

rmuise@americanfreedomlawcenter.org

Gerard V. Bradley, Esq.

3156 Eck Hall

University of Notre Dame

Notre Dame, Indiana 46556

Gerard.V.Bradley.16@nd.edu

Counsel for Amici Curiae

CERTIFICATE OF COMPLIANCE

I certify that pursuant to Fed. R. App. P. 32(a), the foregoing Brief is proportionally spaced, has a typeface of 14 points Times New Roman, and contains 5,827 words, excluding those sections identified in Fed. R. App. P. 32(f).

AMERICAN FREEDOM LAW CENTER

/s/ Robert J. Muise

Robert J. Muise, Esq.

CERTIFICATE OF SERVICE

I hereby certify that on July 16, 2024, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the Seventh Circuit by using the appellate CM/ECF system. Participants in the case who are registered CM/ECF users will be served by the appellate CM/ECF system. I further certify that all of the participants in this case are registered CM/ECF users.

AMERICAN FREEDOM LAW CENTER

/s/ Robert J. Muise

Robert J. Muise, Esq.