American Bar Association www.supremecourtpreview.org

No. 12-144

IN THE

Supreme Court of the United States

DENNIS HOLLINGSWORTH, et al.,

Petitioners,

v.

KRISTEN M. PERRY, et al.,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit

BRIEF OF DR. MARIA NIETO AS AMICUS CURIAE SUPPORTING RESPONDENTS

DAVID A. KETTEL
Counsel of Record
JUSTIN A. FORD
REBECCA F. GANZ
KATTEN MUCHIN ROSENMAN LLP
2029 Century Park East
Suite 2600
Los Angeles, CA 90067
david.kettel@kattenlaw.com
310-788-4400

Counsel for Dr. Maria Nieto

TABLE OF CONTENTS

INTERE	ST OF A	MICUS CURIAE 1
SUMMA	RY OF T	THE ARGUMENT2
ARGUM	ENT	3
I.	Do Not "Woma	Thousands of Americans Neatly Fit Into "Man" or n" Classifications Used in ition 8
	A.	Sex and Gender Are Not Synonymous4
	В.	Biological Examples and Women Who Are Male7
	С.	Does Appearance or Biology Control?9
II.	"Woma Ration	assifications of "Man" and n" for Marriage Are Not al Because They May From Biological Sex
CONCLU	JSION	16

TABLE OF AUTHORITIES

Cases

Bd. of Trs. of the Univ. of Ala. v. Garrett, 531 U.S. 356 (2001)14, 15
City of Cleburne v. Cleburne Living Ctr., 372 U.S. 432 (1985)14
<i>In re Estate of Gardner</i> , 273 Kan. 191; 42 P.3d 120 (2002)10
J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127 (1994)12
Jacobellis v. Ohio, 378 U.S. 184 (1964)
Kantaras v. Kantaras, 884 So. 2d 155 (Fla. Dist. Ct. App. 2004)11
Loving v. Virginia, 388 U.S. 1 (1967)12
Romer v. Evans, 517 U.S. 620 (1996)14
Skinner v. Oklahoma, 316 U.S. 535 (1942)12
Strauss v. Horton, 46 Cal. 4th 364, 207 P.3d 43 (2009)13
United States v. Virginia, 518 U.S. 515 (1996)4, 12
Vecchione v. Vecchione, CA Civ. No. 96D003769 (Cal. Super. Ct., Orange Co., filed Nov. 26, 1997)11

Statutes
Cal. Const. Art. 1 § 7.5
Cal. Health & Safety Code § 10342511
Other Authorities
AIS-DSD Support Group for Women and Families, http://www.aisdsd.org/just-learned8
Melanie Blackless, et al., How Sexually Dimorphic Are We? Review and Synthesis, 12 Am. J. Hum. BIOLOGY 151 (2000)
RICHARD BLONNA & JEAN LEVITAN, HEALTHY SEXUALITY 97-97 (2005)6
NEIL A. CAMPBELL & JANE B. REECE, BIOLOGY (8th ed. 2008)
Bruce Gottlieb, Lenore K. Beitel & Mark A Trifiro, Androgen Insensitivity Syndrome, GENEREVIEWS, Mar. 24, 1999, http://www.ncbi.nlm.nih.gov/books/NBK1429/
David Haig, The Inexorable Rise of Gender and the Decline of Sex: Social Change in Academic Titles, 1945-2001, 33 Archives Sexual Behav. 87 (2004)
"How Common is Intersex," Intersex Society of North America, http://www.isna.org/faq/frequency (last visited Feb. 25, 2013)
Tom Mazur, Gender Dysphoria and Gender Change in Androgen Insensitivity or Micropenis, 34 ARCHIVES SEXUAL BEHAV, 411 (2005)8, 10

Population Clock, U.S. Census Bureau, http://www.census.gov/main/www/popclock.ht ml
Population Finder, U.S. Census Bureau, http://www.census.gov/popfinder/6
Deanne J. Whitworth, XX Germ Cells: The Difference Between an Ovary and a Testis, 9 TRENDS IN ENDOCRINOLOGY & METABOLISM 2, 2-6 (1998).5
Amy B. Wisniewski & Tom Mazur: Dehydrogenase Deficiency: A Review of Quality of Life Outcomes, INT'L. J. PEDIATRIC ENDOCRINOLOGY 2009:567430 (2009), http://www.ijpeonline.com/content/2009/1/5674

INTEREST OF AMICUS CURIAE

Dr. Maria Nieto is a Professor of Biological Sciences at California State University, East Bay in Hayward, California.¹ Having studied biological science for more than two decades, she has a strong interest in the Court's determination of whether marriage may be limited to one "man" and one "woman" in furtherance of responsible procreation, because "man" and "woman" are distinct from the biological sex of "male" and "female." In her professional judgment, the Court's determination of the constitutionality of Proposition 8 should take into account the thousands of Americans whose sex does not necessarily match their gender, and how the existence of these individuals informs the true justifications behind Proposition 8.

Dr. Nieto received her Ph.D. from the University of California, Berkeley and her B.S. from Loyola Marymount University in Los Angeles. In her nearly twenty-five year career at California State University, East Bay, she has repeatedly published in peer-reviewed scientific journals, written and contributed to scientific textbooks, and received millions of dollars in National Institutes of Health grants to support her research.

Counsel for all parties have consented to the filing of this brief, and those consents are on file with the Clerk of the Court. In accordance with Rule 37.6, no counsel for a party in this case authored this brief in whole or in part. No person or entity—other than *amicus* and her counsel—made a monetary contribution specifically for the preparation or submission of this brief.

SUMMARY OF THE ARGUMENT

Proposition 8 specifies that "Only marriage between a man and a woman is valid or recognized in California." CAL. CONST. art. I § 7.5. Yet, as a scientific matter, the breadth of human biological diversity means that for some significant portion of the human population, the sexes of "male" and "female" do not necessarily match the genders of "man" and "woman." Thus there is no rational basis for premising the ability to marry on these imprecise classifications.

Biologically speaking, humans can be "male" or "female," meaning that they have a sex-chromosome pair of either XY or XX, respectively. While most often true, this biological sex does not always manifest to a gender of "man" or "woman." More than 150,000 Americans, or approximately 1 in every 2000 individuals, have a naturally occurring intersex variance that may cause the person to have a gender that is, strictly speaking, not his or her sex. These individuals may have all the outwardly visible characteristics of a woman, but due to genetic variances beyond their control are biologically male. For these individuals, the number of which may be greater than the populations of Pasadena, California or Dayton, Ohio, the limitations of Proposition 8 could sanction a marriage between two biological males (where one outwardly looks like a man and the other like a woman) while preventing the marriage of a biological male to a biological female because they outwardly appear as two women.

The existence of this biological diversity shows that Proposition 8's classifications have no rational basis. Proponents' classifications are too attenuated from the stated goal of "responsible procreation" because they make no attempt to tie their classifications to a biological ability to procreate, responsibly or otherwise. Rather, Proponents seem to only care about *outward* gender appearance. The fact that Proposition 8 could result in the recognized marriage of two biological males (where one looks like a man and the other like a woman) shows that it does not bear a rational relation to any legitimate end, particularly that of "responsible procreation." Accordingly, the decision below should be affirmed.

ARGUMENT

I. Tens of Thousands of Americans Do Not Neatly Fit Into "Man" or "Woman" Classifications Used in Proposition 8

Proposition 8, and other statutes like it—statues that restrict marriage based on the parties being one "man" and one "woman"—are constitutionally suspect, because not all people, by virtue of their own genetic makeup, fit neatly into those categories. Despite commonly held notions and assumptions, the sex of every individual in our population does not necessarily match that individual's gender.² See

Throughout this Brief, and in most biological contexts, the terms "male" and "female" are used to reference biological sex, while "man" and "woman" refer to gender, as defined by cultural definitions associated with "masculine" and "feminine." See David Haig, The Inexorable Rise of Gender and the Decline of Sex: Social Change in Academic Titles, 1945–2001, 33 ARCHIVES SEXUAL BEHAV. 87, 87-96 (2004).

Melanie Blackless, et al., How Sexually Dimorphic Are We? Review and Synthesis, 12 Am. J. Hum. BIOLOGY 151, 151-66 (2000). Biological science has observed tremendous diversity in sex and gender within our species. The disconnect between the gender terms "man" and "woman," which are not necessarily the same as the biological terms "male" and "female," makes a classification that attempts to define genders in absolute terms, when biology itself does not, inherently irrational.

A. Sex and Gender Are Not Synonymous

Though used interchangeably in common parlance, sex and gender do not embody the same concepts.³ See David Haig, The Inexorable Rise of Gender and the Decline of Sex: Social Change in Academic Titles, 1945–2001, 33 Archives Sexual Behav. 87, 87-96 (2004). This distinction is significant when laws like Proposition 8 make classifications based on a gender conception—one man and one woman.

Even the decisions of this Court dealing with gender discrimination use the terms "gender" and "sex" interchangeably. *E.g United States v. Virginia*, 518 U.S. 515, 533 (1996) ("Inherent differences' between men and women, we have come to appreciate, remain cause for celebration, but not for denigration of the members of either sex or for artificial constraints on an individual's opportunity."); *id.* at 559 (Rehnquist, C.J., concurring in the judgment) ("[A] gender-based classification "must bear a close and substantial relationship to important governmental objectives."); *id.* at 570 (Scalia, J., dissenting) ("It is well settled, as Justice O'Connor stated some time ago for a unanimous Court, that we evaluate a statutory classification based on sex under a standard that lies between the extremes of rational basis review and strict scrutiny." (quotations omitted)).

"Male" and "female" are biological terms used to designate a person's sex. See Blackless, et al., How Sexually Dimorphic Are We?, at 87. In a biological sense, the two sexes are distinguished by whether they produce sperm or eggs, which requires functioning internal reproductive tissues and organs. Deanne J. Whitworth, XX Germ Cells: The Difference Between an Ovary and a Testis, 9 TRENDS IN ENDOCRINOLOGY & METABOLISM 2, 2-6 (1998). Neither the law nor commonplace society strips an individual of his or her sexual designation if for some reason he or she is unable to produce viable and/or functioning sperm or eggs. Therefore, we have accepted individuals as being man and woman based in large part on outward physical characteristics without regard to their biological sex.

The development of these physical characteristics—ranging from sex organs like a penis or vagina to secondary characteristics like breasts or facial hair—is determined by genetic information organized in the form of genes and contained within our chromosomes. See Neil A. Campbell & Jane B. REECE, BIOLOGY 249 (8th ed. 2008). Normal human cells possess 46 chromosomes, two of which are referred to as sex chromosomes. See id. at 250-51. The sex chromosomes of a typical male are designated as XY, and for a typical female XX. See id. at 250. Although genes located on non-sex chromosomes also play a role in male and female development, the presence or absence of genetic information on the sex chromosomes, most importantly the Y, is critical in cuing the early embryo to develop into male or female.

Sex as determined by these chromosomes, or more specifically the presence or absence of a Y chromosome, is commonly used interchangeably with "gender." See, e.g., Haig, The Inexorable Rise of Gender, at 87-96. Gender, however, is determined by cultural and social mores and refers to definitions associated with "masculine" or "feminine" patterns of behavior as well as appearance. See RICHARD BLONNA & JEAN LEVITAN, HEALTHY SEXUALITY 97-97 (2005). For most individuals, one's sex and gender match: males would self-identify as men, and females would self-identify as women. See Blackless, et al., How Sexually Dimorphic Are We?, at 151-66.

This matching is not guaranteed. While it may seem reasonable to assume that all males possess XY chromosomes and associated male physical characteristics, and that all females possess XX chromosomes and associated female characteristics, this assumption would be incorrect. An estimated one in every 2,000 births is indeterminate enough in terms of sex to require a specialist in sex differentiation. See "How Common is Intersex," Intersex Society of North America, http://www.isna.org /fag/frequency (last visited Feb. 25, 2013). In the United States, with a population of approximately 315 million, this translates into at least 158,000 people, or more people than live in the cities of Pasadena, California, or Dayton, Ohio.⁴ Thus where Propo-

The current U.S. Population is in excess of 315 million. See Population Clock, U.S. Census Bureau, http://www.census.gov/main/www/popclock.html. Statistical data for Dayton and Pasadena is taken from the U.S. Census Bureau. See Population Finder, U.S. Census Bureau, http://www.census.gov/popfinder/

sition 8 confines marriage in California to the union of one man and one woman, individuals whose sex and gender do not necessarily match call into question that prohibition's meaning, purpose, and function.

B. Biological Examples and Women Who Are Male

Though a host of biological conditions can result in a disparate connection between chromosomal sex and outward-appearing gender, one example particularly demonstrates how laws like Proposition 8 are problematic. Androgen Insensitivity Syndrome, or AIS, is a condition occurring in about one of every 12,000 individuals that results in cells unable to respond to hormones called androgens, which are necessary for the development of male physiology and sex characteristics. In Complete AIS, cells do not respond at all to these androgens, and despite having a Y chromosome, the individual appears to be, and has the outward sex characteristics of, a woman. Amy B. Wisniewski & Tom Mazur: Dehydrogenase Deficiency: A Review of Quality of Life Outcomes, INT'L. J. PEDIATRIC ENDOCRINOLOGY 2009:567430 (2009),http://www.ijpeonline.com/content/2009/1/567430.

To be clear, nearly all of these individuals are born appearing to be and live their lives as women, but by virtue of their own genetic code have testes that remain internal, and are biologically "male," because they have a Y chromosome. *Id.*; Bruce Gottlieb, Lenore K. Beitel & Mark A Trifiro, *Androgen Insensitivity Syndrome*, GENEREVIEWS, Mar. 24, 1999, http://www.ncbi.nlm.nih.gov/books/NBK1429/. Many of these individuals with AIS do not realize

their condition until making some medical inquiry in adulthood. *Id*. Research into AIS has revealed the condition is a sex-linked genetic one inherited from the mother, much like hemophilia or color-blindness. *See id*.

Complete AIS is not the only condition leading to this seeming sex and gender disconnect. Others such as 5-Alpha Reductase Deficiency can result in the same outcome: an individual who can possess outward sex characteristics of a woman, but is biologically male. Still other conditions result in more ambiguous outcomes. Partial AIS, in which cells respond somewhat to androgens like testosterone, can result in the natural development of a small penis. These individuals with Partial AIS may look like and "pass" as women, even though they may have both male and female genitalia. Still others may have been subjected to gender assignment surgery as infants to "make" them women. Id.; Tom Mazur, Gender Dysphoria and Gender Change in Androgen Insensitivity or Micropenis, 34 Archives Sexual BEHAV. 411, 411-21 (2005). Proponents' simplistic approach to human physiology ignores these variations.

One woman who shares her story on an AIS support group website provides an example of the issue. Katie, who lives in the Philadelphia area, was born with Complete AIS. See AIS-DSD Support Group for Women and Families, http://www.aisdsd.org/just-learned. Katie looks like and identifies as a woman, but because of her AIS has a Y chromosome and lacks a uterus or fallopian tubes. *Id.* Katie is a biological male, because she has a Y chromosome and

was born with testes, yet Katie considers herself a woman and discusses on the website her desire to marry her fiancé Sam. *Id.* Katie's birth certificate likely says "female," because at birth she appeared to be female, but in strict biological terms, she is not. No matter Katie and Sam's biology and their genders, that does not diminish their love, their desires, or their humanity.

C. Does Appearance or Biology Control?

Whether an individual is a "man" or "woman" given the biological diversity of human beings is significant when certain rights, like marriage, turn on those classifications. Proponents' arguments assume erroneously that all individuals are either man or woman, and that those genders correlate to their biology. In essence, and to paraphrase the late Justice Stewart, Proponents do not have to define a woman, but they know it when they see one. Cf. Jacobellis v. Ohio, 378 U.S. 184, 197 (1964) (Stewart, J., concurring). But individuals like those with the varying degrees of AIS—part of the breadth of genetic diversity of human beings—necessarily question that assumption, and in real terms show that an outwardly appearing woman could in fact be biologically male. Our own biological diversity helps demonstrate how the definitions in laws like Proposition 8, which restrict valid marriages to those "between a man and a woman" are imprecise and problematic. CAL. CONST. art. I, § 7.5.

Take, for example, an individual with Partial AIS, biologically a male, who has some formation of outwardly male features at birth. Often in the United States, these individuals undergo gender assign-

ment surgery to be "made" into women as infants—without their knowledge or consent. See Mazur, Gender Dysphoria at 411-421. While raised as women, these individuals could grow up to find that their brain dictates that they have the gender identity of a man. If this male is attracted to a woman, that would biologically imply a "heterosexual" orientation. But this attraction would be labeled by society as lesbian, simply because the wrong gender was arbitrarily assigned to one of the individuals at birth. A broad reading of Proposition 8 would prevent this otherwise heterosexual couple from getting married.

Some states have gone so far as to say chromosomal makeup at birth determines eligibility for marriage. The Supreme Court of Kansas and the Florida Court of Appeal have held that biological sex is the proper touchstone. In Kansas, the legislature restricted the recognition of marriages only to those "between two parties who are of opposite sex." Kan. Stat. Ann. 23-101. Based on that statute, the state supreme court invalidated the marriage of a man to a postoperative male-to-female transgender woman because "the plain, ordinary meaning of 'persons of opposite sex' contemplates a biological man and a biological woman." In re Estate of Gardner, 273 Kan. 191, 213; 42 P.3d 120, 135 (2002). In Florida, a female-to-male transgender individual had his marriage invalidated because of "the common meaning of male and female, as those terms are used statutorily, to refer to immutable traits determined at birth."

The Kansas court made this decision notwithstanding that the woman's birth certificate was legally changed to read "female." *Gardner*, 273 Kan. at 194, 213 P.3d at 123.

Kantaras v. Kantaras, 884 So. 2d 155, 161 (Fla. Dist. Ct. App. 2004). These decisions still ignore biological intersex variances like AIS, which are, to quote the Petitioners, "a matter of indisputable biological fact." *Cf.* Pet. Br. at 28.

The Kansas and Florida decisions call into question whether someone with Complete AIS could marry in Kansas or Florida. Individuals with CAIS are accepted as females in our society even though they do not produce ova, cannot bear children, and possess male sex chromosomes. Should one of these individuals wish to marry a man, that marriage would be considered "same sex" under the logic of those cases because both parties would be biologically male. In California, at least one lower court has held that a transgender person may marry someone of the opposite gender consistent with California law, in effect making gender the touchstone, not biology. See Vecchione v. Vecchione, CA Civ. No. 96D003769 (Cal. Super. Ct., Orange Co., filed Nov. 26, 1997); see also Cal. Health & Safety Code § 103425 (allowing transgender individuals to change listed sex on birth certificates). But such reliance on gender in the face of Proposition 8's banning marriages for gay men and lesbians makes no sense, particularly if the purported justification is responsible procreation.

Thus, when classifications are made using gender terms that actually mean biological sex, these classifications necessarily leave out a significant portion of our population who, through no decision of their own, do not fit into the ascribed gender-sex distinction that society at-large has cast upon them. Proposition 8 is one of these classifications, and its restriction of

marriage to "one man" and "one woman," if applied as in Kansas and Florida, could call into question potentially thousands of marriages otherwise considered "heterosexual" because they are in fact between individuals of the same biological sex. The existence of these conditions is a biological fact, long described in scientific literature, and by the individuals themselves. It cannot be ignored when evaluating whether Proposition 8 survives an Equal Protection analysis.

II. The Classifications of "Man" and "Woman" for Marriage Are Not Rational Because They May Differ from Biological Sex

Marriage has been described by this Court as "one of the basic civil rights of man, fundamental to our very existence and survival." Loving v. Virginia, 388 U.S. 1, 12 (1967) (quoting Skinner v. Oklahoma, 316 U.S. 535, 541 (1942)). Furthermore, the Court has held that "[w]ithout equating gender classifications, for all purposes, to classifications based on race or natural origin, the Court in post-Reed decisions, has carefully inspected official action that closes a door or denies opportunity to women (or to men)." United States v. Virginia, 518 U.S. 515, 532 (1996) (footnote omitted); J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127, 152 (1994) (Kennedy, J., concurring in judgment) (observing that the Court's post-1971 jurisprudence "reveal[s] a strong presumption that gender classifications are invalid"). But setting aside the question of whether heightened scrutiny applies to the Court's analysis of Proposition 8, the mere existence of the biological variance in the human population indicates that Petitioners' purported

rational basis of "responsible procreation" fails to justify Proposition 8's ban on marriages for gay men and lesbians.⁶

Proponents argue that the state has an interest in limiting marriage to unions between men and women to promote responsible procreation, and that these unions are the only way to achieve this goal. See Pet. Br. at 31-43. In making this argument, Proponents claim that the procreative relationship flows from a "biological foundation," and that this foundation "implicates vital social interests." Pet. Br. at 33. Yet Proponents completely ignore that the same biological foundation of sexual reproduction between male and female results in individuals who may not fit these male and female designations, and who may not fit the gender characteristics they expect. Moreover, there are many women in the population who are not intersex and cannot bear children due to some physical consequence. Yet, infertile women are allowed to legally marry, even under Proposition 8. That Proponents do not use the biological terms male and female in Proposition 8, and the fact that infertile "opposite-sex" couples can continue to get married under the "man" and "woman" definition shows that Proponents did not actually care about encouraging responsible procreation.

Though Proponents frame Proposition 8 as preserving the definition of marriage, the California Supreme Court determined that Proposition 8 "eliminates the ability of same-sex couples to enter into an official relationship designated 'marriage." Strauss v. Horton, 46 Cal. 4th 364, 412, 207 P.3d 43, 77 (2009) (emphasis added).

The fact that a biological male who appears to be female could legally marry another biological male, simply because of appearances, shows how the classification made in Proposition 8 on the purported basis of furthering responsible procreation is "so attenuated as to render the distinction arbitrary or irrational." City of Cleburne v. Cleburne Living Ctr., 372 U.S. 432, 446 (1985). Indeed if we consider a woman with Complete AIS a "male," as the courts in Kansas and Florida seem to suggest, and yet allow her to marry another male because she looks to be a woman in every way except biologically, but prohibit two biological males who look male from marrying, then Proponents' "purported justifications for [Proposition 8] ma[k]e no sense in light of how [it] treat[s] other groups similarly situated in relevant respects." Cf. Bd. of Trs. of the Univ. of Ala. v. Garrett, 531 U.S. 356, 366 n.4 (2001). Thus, when Proponents argue that Proposition 8 prevents the "redefining" of marriage, and encourages "responsible procreation," Proposition 8 does nothing of the kind because it actually allows marriages of the same biological sex, such as one between a male with Complete AIS (who appears to be a woman) and another biological male, because it *appears* to be the kind of marriage Proponents are accustomed to and want to continue seeing. These outcomes from Proposition 8 show that it does not "bear a rational relation to some legitimate end," and does not satisfy rational basis review. Romer v. Evans, 517 U.S. 620, 631 (1996).

These examples and classifications are not academic, nor are they without precedent. Individuals like Katie in Pennsylvania exist in our population, are born every day, and are part of the great fabric of

human diversity. Because these terms used in Proposition 8 are so imprecise and so arbitrary, they cannot be rational as a basis for excluding gay men and lesbians (where both parties are also the same gender) from marriage other than prejudice. dice . . . may result as well from insensitivity caused by simple want of careful, rational reflection or from some instinctive mechanism to guard against people who appear to be different in some respects from ourselves." Garrett, 531 U.S. at 374 (Kennedy, J., concurring). There is no need to call into question the legitimacy of thousands of loving marriages that are really, at least from a biological standpoint, unions between the same biological sexes in the name of preventing unions that, from a biological standpoint are the same, but appear to be in some way different from what we expect based on gender norms.

* * * * *

Biological variation is common among all species and exists naturally. These variations make us tall or short, blue-eyed or brown-eyed, with curly or straight hair, and everything in between. Proposition 8 attempts to draw a classification based on the terms "man" and "woman," without taking biological variation into account, and in so doing reveals its purported justifications as arbitrary and irrational in relationship to its proscriptions. Biology cannot tell us who can and should marry whom; neither should the law.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

DAVID A. KETTEL
Counsel of Record
JUSTIN A. FORD
REBECCA F. GANZ
KATTEN MUCHIN ROSENMAN LLP
2029 Century Park East
Suite 2600
Los Angeles, CA 90067
david.kettel@kattenlaw.com
310-788-4400

 $Counsel \ for \ Dr. \ Maria \ Nieto$ February 28, 2013