

1 Steven N.H. Wood, Esq. (CA SBN 161291)  
 Christopher J. Schweickert, Esq. (CA SBN 225942)  
 2 **BERGQUIST, WOOD & ANDERSON, LLP**  
 1470 Maria Lane, Suite 300  
 3 Walnut Creek, CA 94596  
 Telephone: (925) 938-6100  
 4 Facsimile: (925) 938-4354  
 wood@wcjuris.com  
 5 cjs@wcjuris.com

6 Attorneys for *Amicus Curiae* Paul R. McHugh, M.D.

7  
 8 **UNITED STATES DISTRICT COURT**  
 9 **NORTHERN DISTRICT OF CALIFORNIA**

12 KRISTIN M. PERRY, et al.,

13 Plaintiffs,

14 and

15 CITY AND COUNTY OF SAN FRANCISCO,

16 Plaintiff-Intervenor,

17 v.

18 ARNOLD SCHWARZENEGGER, et al.,

19 Defendants,

20 and

21 PROPOSITION 8 OFFICIAL PROPONENTS  
 22 DENNIS HOLLINGSWORTH, GAIL J.  
 KNIGHT, MARTIN F. GUTIERREZ, HAK-  
 23 SHING WILLIAM TAM, and MARK A.  
 JANSSON; and PROTECTMARRIAGE.COM –  
 24 YES ON 8, A PROJECT OF CALIFORNIA  
 RENEWAL,

25 Defendant-Intervenors.

CASE NO. 09-CV-2292 VRW

**BRIEF OF *AMICUS CURIAE* PAUL  
 R. MCHUGH, M.D. IN SUPPORT OF  
 DEFENDANT-INTERVENORS**

Date: To Be Determined By The Court  
 Time: To Be Determined By The Court  
 Location: Courtroom 6, 17th Floor  
 Judge: Chief Judge Vaughn R. Walker  
 Trial Date: January 11, 2010

TABLE OF CONTENTS

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

TABLE OF AUTHORITIES ..... ii

INTEREST OF *AMICUS CURIAE*..... 1

INTRODUCTION ..... 1

I. THERE IS NO SCIENTIFIC AGREEMENT ON THE DEFINITION OF  
HOMOSEXUALITY ..... 1

    A. *There is significant disparity within even the most commonly-used  
    definitions of orientation*..... 2

    B. *Sexual orientation changes over time* ..... 3

    C. *The definition of “homosexual” is even broader than conduct,  
    attraction, or self-identity* ..... 4

    D. *The definitional gap results in a hugely significant difference in the  
    number of class members*..... 5

II. EMERGING EVIDENCE SUGGESTS THAT HOMOSEXUALITY IS NOT  
AN INNATE CHARACTERISTIC LIKE RACE OR SEX..... 6

CONCLUSION..... 7

TABLE OF AUTHORITIES

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

J.M. Bailey, et al., *Heritable Factors Influence Sexual Orientation in Women*, 50 ARCHIVES OF GEN. PSYCHIATRY 217 (1993).....6

J.M. Bailey & R.C. Pillard, *A Genetic Study of Male Sexual Orientation*, 48 ARCHIVES OF GEN. PSYCHIATRY 1089 (1991).....6

Peter S. Bearman & Hannah Bruckner, *Opposite-Sex Twins and Adolescent Same-Sex Attraction*, 107 AM. J. OF SOCIOLOGY 1179 (2002) .....6, 7

Gail S. Bernstein, Ph.D., *Defining Sexual Orientation*, SELFHELP MAGAZINE, [http://www.selfhelpmagazine.com/article/sexual\\_orientation](http://www.selfhelpmagazine.com/article/sexual_orientation).....1, 2

Karen L. Bridges and James M. Croteau, *Once-Married Lesbians: Facilitating Changing Life Patterns*, 73 J. OF COUNSELING AND DEV. 134 (Nov./Dec. 1994) .....4

Christopher Carpenter & Gary Gates, *Gay and Lesbian Partnership: Evidence from California*, 45 DEMOGRAPHY 573 (2008) .....2

JOHN P. DECECCO, GAY PERSONALITY AND SEXUAL LABELING (1985) .....4, 5

LOUIS DIAMANT AND RICHARD D. MCANULTY, THE PSYCHOLOGY OF SEXUAL ORIENTATION, BEHAVIOR, AND IDENTITY: A HANDBOOK 82 (1995) .....3

Lisa M. Diamond, *New Paradigms for Research on Heterosexual and Sexual Minority Development*, 32 (4) J. OF CLINICAL CHILD AND ADOLESCENT PSYCHOL. 492 (2003) .....1

Lisa M. Diamond & Ritch C. Savin-Williams, *Explaining Diversity in the Development of Same-Sex Sexuality Among Young Women*, 56 J. OF SOC. ISSUES 297 (2000).....3

Lisa M. Diamond, *Sexual Identity, Attractions, and Behavior Among Young Sexual-Minority Women Over a 2-Year Period*, 36 DEVELOPMENTAL PSYCHOL. 241 (2000).....3

E. Eckert, et al., *Homosexuality in monozygotic twins reared apart*, 148 British J. Psychiatry 421 (1986).....6

RICHARD C. FRIEDMAN AND JENNIFER I. DOWNEY, SEXUAL ORIENTATION AND PSYCHOANALYSIS: SEXUAL SCIENCE AND CLINICAL PRACTICE 39 (2002).....6

John C. Gonsiorek, et al., *Definition and Measurement of Sexual Orientation, in SUICIDE AND LIFE-THREATENING BEHAVIOR* 40 (1995) .....4, 5

Kenneth S. Kendler, et al., *Sexual Orientation in a U.S. National Sample of Twin and Nontwin Sibling Pairs*, 157 AM. J. OF PSYCHIATRY 1843 (2000) .....6, 7

Michael King & Elizabeth McDonald, *Homosexuals who are Twins*, 160 British J. Psychiatry 407 (1992).....6, 7

1 Niklas Langstrom, *et al.*, *Genetic and Environmental Effects of Same-Sex Sexual*  
 2 *Behavior: A Population of Twins in Sweden*, Arch.Sexual Behav.  
 (Forthcoming) .....6

3 Fritz Klein, Barry Sepekoff, and Timothy Wolf, *Sexual Orientation: A Multi-Variable*  
 4 *Dynamic Process*, 11 (1) J. OF HOMOSEXUALITY 35 (1985) .....4

5 EDWARD O. LAUMANN, ET AL., *THE SOCIAL ORGANIZATION OF SEXUALITY* (1994) .....2, 5

6 A.E. MOSES & R.O. HAWKINS, JR., *COUNSELING LESBIAN WOMEN AND GAY MEN: A*  
 LIFE ISSUES APPROACH 43 (1982).....2

7 TIMOTHY F. MURPHY, *GAY SCIENCE: THE ETHICS OF SEXUAL ORIENTATION*  
 RESEARCH 15 (1997) .....4

8 TODD A. SALZMAN & MICHAEL G. LAWLER, *THE SEXUAL PERSON* 65 (2008) .....1, 4

9 RITCH C. SAVIN-WILLIAMS, *THE NEW GAY TEENAGER* (2005) .....2

10 Ritch C. Savin-Williams, *Then and Now: Recruitment, Definition, Diversity, and*  
 11 *Positive Attributes of Same-Sex Populations*, 44:1 DEV. PSYCHOL. 135 (2008).....2

12 Ritch C. Savin-Williams, *Who’s Gay? Does it Matter?*, 15 CURRENT DIRECTIONS  
 PSYCHOL. SCI. 40 (2006) .....2

13 M.G. Shively and J.P. DeCecco, *Components of Sexual Identity*, 3 J.  
 14 HOMOSEXUALITY 41 (1977). .....2

15 Robert L. Spitzer, *Can Some Gay Men and Lesbians Change Their Sexual*  
 16 *Orientation? 200 Participants Reporting a Change from Homosexual to*  
*Heterosexual Orientation*, 32 ARCHIVES OF SEXUAL BEHAV. 403 (2003).....4

17 Joseph P. Stokes, et al, *Predictors of Movement Toward Homosexuality: A*  
 18 *Longitudinal Study of Bisexual Men*, 43 J. OF SEX RES. 304 (1997).....3

19  
 20  
 21  
 22  
 23  
 24  
 25  
 26  
 27  
 28

**INTEREST OF AMICUS CURIAE**

*Amicus* is a scholar of psychiatry with a professional interest in orientation issues. He seeks to provide information to this Court bearing on its decision of whether to endorse a legal declaration that orientation is a fixed and immutable characteristic similar to race or gender.

**INTRODUCTION**

Plaintiffs assert a claim on behalf of a larger group and claim that this group as a class has been denied liberty and equality. Thus, they urge comparisons to racial minorities and women who have been the victims of discrimination based on largely immutable group characteristics.

As an expert in psychiatry, *Amicus* offers scientific information that is directly relevant to this court in assessing whether orientation as a category is sufficiently similar to race and gender to merit analogous treatment in Constitutional law. *Amicus* points out two highly relevant facts: (1) there is no scientific consensus on what homosexuality is, and the number of people who fit in the class “gay and lesbian” varies widely, depending on which definition of homosexuality is used and (2) there is no scientific consensus that homosexuality is exclusively or primarily genetic in origin. In fact, the most recent studies on identical twins cast increasing doubt on genetic explanations as primary reasons for sexual orientation.

In the absence of a social and scientific consensus that orientation is an immutable or fixed class, laws defining marriage as a union of male and female should not trigger strict scrutiny on the grounds they deny marriage rights to a fixed class.

**I. THERE IS NO SCIENTIFIC AGREEMENT ON THE DEFINITION OF HOMOSEXUALITY.**

“There is currently no scientific or popular consensus . . . that definitively ‘qualify’ an individual as lesbian, gay, or bisexual.” Lisa M. Diamond, *New Paradigms for Research on Heterosexual and Sexual Minority Development*, 32 (4) J. OF CLINICAL CHILD AND ADOLESCENT PSYCHOL. 492 (2003). “Much of the confusion about sexual orientation occurs because there is no single agreed upon definition of the term. . . . There is no one universally accepted definition of sexual orientation, nor of who is bisexual, lesbian, or gay.” Gail S. Bernstein, Ph.D., *Defining Sexual Orientation*, SELFHELP MAGAZINE, [http://www.selfhelpmagazine.com/article/sexual\\_orientation](http://www.selfhelpmagazine.com/article/sexual_orientation). “The meaning of the phrase ‘sexual orientation’ is complex and not universally agreed upon.” TODD A. SALZMAN & MICHAEL G. LAWLER, THE SEXUAL PERSON 65 (2008).

1 Nearly all studies of orientation describe the difficulty in defining the population of  
2 homosexuals. The authors of the “Chicago Sex Survey,” which is considered one of the most  
3 reliable scholarly efforts to determine sexual practices in the United States, noted the following:

4 [The authors’ research] raises quite provocative questions about the definition of  
5 homosexuality. While there is a core group (about 2.4 percent of the total men and  
6 about 1.3 percent of the total women) in our survey who define themselves as  
7 homosexual or bisexual, have same-gender partners, and express homosexual desires,  
8 there are also sizable groups who do not consider themselves to be either homosexual  
9 or bisexual but have had adult homosexual experiences or express some degree of  
10 desire.

11 EDWARD O. LAUMANN, ET AL., THE SOCIAL ORGANIZATION OF SEXUALITY 300-301 (1994). Other  
12 researchers report similar definitional complexities, e.g. “There is a physical orientation, an  
13 affectional orientation, and a fantasy orientation, with each of those three further divided into a past  
14 (historical) component and a present component. A person’s behavior may be totally at variance  
15 with all aspects of orientation, and the various parts of orientation may not all agree.” A.E. MOSES  
16 & R.O. HAWKINS, JR., COUNSELING LESBIAN WOMEN AND GAY MEN: A LIFE ISSUES APPROACH 43  
17 (1982).

18 ***A. There is significant disparity within even the most commonly-used definitions of  
19 orientation.***

20 Scientific literature includes at least three basic definitions of orientation, based on (a)  
21 sexual behavior, (b) sexual attraction, or (c) self-ascribed social identity. LAUMANN, *supra* at 291.  
22 See also Ritch C. Savin-Williams, *Then and Now: Recruitment, Definition, Diversity, and Positive  
23 Attributes of Same-Sex Populations*, 44:1 DEV. PSYCHOL. 135-38 (2008); M.G. Shively and J.P.  
24 DeCecco, *Components of Sexual Identity*, 3 J. HOMOSEXUALITY 41-48 (1977). Within each  
25 definitional category there are significant subvariations. These are not minor variations on a theme.  
26 Rather, they present fundamentally different ways of understanding who is “gay.” These  
27 differences produce large variations in estimates of who counts as a member of this class. See  
28 LAUMANN, *supra* at 294-295, 297; RITCH C. SAVIN-WILLIAMS, THE NEW GAY TEENAGER (2005);  
Ritch C. Savin-Williams, *Who’s Gay? Does it Matter?*, 15 CURRENT DIRECTIONS PSYCHOL. SCI. 40  
(2006); Savin-Williams, *Then and Now*, *supra* at 135-38; Bernstein, *supra*; Christopher Carpenter  
& Gary Gates, *Gay and Lesbian Partnership: Evidence from California*, 45 DEMOGRAPHY 573,  
574 (2008).

1 **B. Sexual orientation changes over time.**

2 The fluid nature of homosexuality is also fundamentally different from race and gender  
3 classifications. Even with an agreed-on definition of who falls into a homosexual class, this court  
4 should consider that its members are likely to move in and out of the class throughout their lives.  
5 “Contrary to the notion that most sexual minorities undergo a one-time discovery of their true  
6 identities, 50% of [a study’s] respondents had changed their identity label more than once since  
7 first relinquishing their heterosexual identity.” Lisa M. Diamond & Ritch C. Savin-Williams,  
8 *Explaining Diversity in the Development of Same-Sex Sexuality Among Young Women*, 56 J. OF  
9 SOC. ISSUES 301 (2000). In another study, the author notes that “[h]alf of the young women in this  
10 sample relinquished the first sexual-minority identity they adopted.” Lisa M. Diamond, *Sexual  
11 Identity, Attractions, and Behavior Among Young Sexual-Minority Women Over a 2-Year Period*,  
12 36 DEVELOPMENTAL PSYCHOL. 247 (2000).

13 Although research into the origins of orientation is in its infancy, the research we have  
14 shows flux in adults’ own self-ascription of homosexuality. That is, research that asks individuals  
15 to rate themselves on the homosexuality continuum, and then asks these same individuals to rate  
16 themselves again several months or years later, finds that many individuals vary, with some  
17 becoming more “gay” and some becoming less “gay” in their own estimation over time. “[W]e  
18 realize that homosexuality is not some monolithic construct one moves toward or from in a linear  
19 way; movement toward homosexuality fails to capture the fluid and contextual nature of sexuality.  
20 We also acknowledge that changes in sexual feelings and orientation over time occur in all possible  
21 directions.” Joseph P. Stokes, et al, *Predictors of Movement Toward Homosexuality: A  
22 Longitudinal Study of Bisexual Men*, 43 J. OF SEX RES. 304, 305 (1997). The  
23 behavior/attraction/self-identification dimensions “suggest[] that sexual orientation is not static and  
24 may vary throughout the course of a lifetime.” LOUIS DIAMANT AND RICHARD D. MCANULTY, *THE  
25 PSYCHOLOGY OF SEXUAL ORIENTATION, BEHAVIOR, AND IDENTITY: A HANDBOOK* 82 (1995).

26 Scholars of orientation are also beginning to find an increasing number of women who  
27 insist that their self-identity as lesbians is in fact a personal choice, rather than a biological  
28 constraint. One study notes that “variability in the emergence and expression of female same-sex  
29 desire during the life course is normative rather than exceptional.” Diamond & Savin-Williams,  
30 *supra* at 298. See also Diamond, *Sexual Identity, supra*.

31 Other researchers report similar results. For example, researchers Charbonneau and  
32 Lander interviewed 30 women who had spent half their lives as heterosexuals, married, had



1 children, and then in midlife became lesbian. Some of these women explained their lesbianism as a  
2 process of self-discovery. But a “second group of women . . . regarded their change more as a  
3 choice among several options of being lesbian, bisexual, celibate or heterosexual.” Karen L.  
4 Bridges and James M. Croteau, *Once-Married Lesbians: Facilitating Changing Life Patterns*, 73 J.  
5 OF COUNSELING AND DEV. 134, 135 (1994) (describing C. Charbonneau and P.S. Lander,  
6 *Redefining Sexuality: Women Becoming Lesbian in Mid-Life*, in LESBIANS AT MID-LIFE 35 (B.  
Sang, et al. ed., 1991)).

7 In addition to these sources of flux, recent scientific research shows that at least some  
8 strongly motivated individuals can change their orientation, in terms of identity, behavior, and self-  
9 reported sexual attraction. Robert L. Spitzer, *Can Some Gay Men and Lesbians Change Their*  
10 *Sexual Orientation? 200 Participants Reporting a Change from Homosexual to Heterosexual*  
11 *Orientation*, 32 ARCHIVES OF SEXUAL BEHAV. 403 (2003).

12 If true, at what point does a person leave the class? And when does the person become  
13 ineligible for benefits or considerations offered to the class? These unavoidable questions add yet  
14 another dimension to the multi-faceted complexity of defining homosexuality.

15 **C. The definition of “homosexual” is even broader than conduct, attraction, or self-identity.**

16 The definitional complexity is not limited to only three definitions — conduct, attraction,  
17 or self-identity — and their subvariations. Some researchers believe that “sexual orientation cannot  
18 be reduced to a bipolar or even a tripolar process, but must be recognized within a dynamic and  
19 multi-variate framework.” Fritz Klein, Barry Sepekoff, and Timothy Wolf, *Sexual Orientation: A*  
20 *Multi-Variable Dynamic Process*, 11 (1) J. OF HOMOSEXUALITY 35-49 (1985). Others recommend  
21 the use of a seventeen question, multiple subpart test to measure sexual orientation. John C.  
22 Gonsiorek, et al., *Definition and Measurement of Sexual Orientation*, in SUICIDE AND LIFE-  
23 THREATENING BEHAVIOR 40 (1995). And others, with the caveat that “the concept of sexual  
24 orientation is a product of contemporary Western thought,” apply their own specific definition for  
25 their current research purpose. TIMOTHY F. MURPHY, GAY SCIENCE: THE ETHICS OF SEXUAL  
26 ORIENTATION RESEARCH 15-24 (1997).

27 “[T]he categories of homosexual, gay, and lesbian do not signify a common, universal  
28 experience.” SALZMAN, *supra* at 2. Because there is no common experience, many will argue for  
an ever-broadening definition of who belongs in a sexual orientation class. “It will be useful to  
expand our notions of sexual orientation to include more than just bisexuality, heterosexuality and  
homosexuality. . . . With respect to various components of sexual orientation, an individual may be



1 heterosexual, homosexual, bisexual, as well as fetishistic, transvestitic, zoophiliac, and so on. It is  
 2 important to note that these are not mutually exclusive categories.” JOHN P. DECECCO, *GAY*  
 3 *PERSONALITY AND SEXUAL LABELING* 16 (1985).

4 Under this rationale, the population of a homosexual class might plausibly include most of  
 5 society. The broad spectrum of definitional possibilities could lead one to “conclude there is  
 6 serious doubt whether sexual orientation is a valid concept at all. Social constructionism suggests  
 7 that there is nothing ‘real’ about sexual orientation except a society’s construction of it.”  
 8 Gonsiorek, *supra* at 4.

9 ***D. The definitional gap results in a hugely significant difference in the number of class***  
 10 ***members.***

11 How much difference do varying definitions of homosexuality make? The 2000 Census  
 12 reports 12,130,354 men and 12,491,465 women over 18 in California. Applying the Chicago Sex  
 13 Survey’s proportions, if Californians are defined as gay by self-identification as either gay or  
 14 bisexual, 339,650 men and 174,881 women in the state are gay or lesbian (based on reports that  
 15 “2.8 percent of the men and 1.4 percent of the women” surveyed in the U.S. “reported some level  
 16 of homosexuality (or bisexual) identity” LAUMANN, *supra* at 293). If homosexuality is defined by  
 17 sexual attraction, however, the numbers would increase to 545,865 for men and 699,520 for  
 18 women. LAUMANN, *supra* at 297. Who is gay in California? The number of men varies from  
 19 340,000 to 546,000 and the number of women varies from 175,000 to 700,000, depending on the  
 20 definition used. Thus, the class of people who are gay and lesbian may more than double or be cut  
 21 by more than half, depending on which equally scientifically legitimate and commonly used  
 22 definition is applied.

23 The absence of any scientific or social agreement about who is included as a homosexual,  
 24 and evidence of at least some flux in self-ascription over time, makes orientation fundamentally  
 25 different in nature than race or gender.

26 **II. EMERGING EVIDENCE SUGGESTS THAT HOMOSEXUALITY IS NOT AN**  
 27 **INNATE CHARACTERISTIC LIKE RACE OR SEX.**

28 Many people believe that homosexuality is genetic in origin, and therefore structurally  
 similar to race or gender. There is, however, no scientific consensus that homosexuality is  
 exclusively or primarily genetic in origin. Recent scientific research and opinion indicates that

1 genetics is *not* the primary explanation. As two Columbia University sociologists suggest in a  
2 recent study, the efforts to establish genetic or hormonal effects on sexual orientation have been  
3 “inconclusive at best.” Peter S. Bearman & Hannah Bruckner, *Opposite-Sex Twins and Adolescent*  
4 *Same-Sex Attraction*, 107 AM. J. OF SOCIOLOGY 1179, 1180 (2002).

5 Two other scholars recently said that “. . . the assertion that homosexuality is genetic is so  
6 reductionistic that it must be dismissed out of hand as a general principle of psychology.” What,  
7 then, causes homosexuality? It is apparent that biological, psychological and social factors  
8 interacting in complex and various ways shape human sexual orientation. RICHARD C. FRIEDMAN  
9 AND JENNIFER I. DOWNEY, *SEXUAL ORIENTATION AND PSYCHOANALYSIS: SEXUAL SCIENCE AND*  
10 *CLINICAL PRACTICE* 39 (2002).

11 Identical twin studies are used to tease out the genetic component of behaviors. The  
12 evidence from these studies is mixed. *See, e.g.,* K. Kendler, *et al., Sexual Orientation in a U.S.*  
13 *National Sample of Twin and Nontwin Sibling Pairs*, 157 Am. J. Psychiatry 1845 (2000) (finding a  
14 genetic component of homosexuality); E. Eckert, *et al., Homosexuality in monozygotic twins reared*  
15 *apart*, 148 British J. Psychiatry 421 (1986) (finding no genetic component of homosexuality); J.  
16 Michael Bailey, *et al., Genetic & Environmental Influences on Sexual Orientation & its Correlates*  
17 *in an Australian Twin Sample*, 78 J. Personality & Soc. Psychol. 524 (2000) (finding no genetic  
18 component of homosexuality). But the most recent and best identical twins study using large,  
19 nationally representative data found no evidence of any genetic influence at all, furthering a recent  
20 trend in scientific research on orientation of rejecting genetic explanations as primary. For  
21 example, 1991 and 1993 studies, involving twin pairs recruited through homosexual publications,  
22 reported a concordance rate (similarity across the twins) of approximately 50 percent, which would  
23 suggest some heritable influence. J.M. Bailey, *et al., Heritable Factors Influence Sexual*  
24 *Orientation in Women*, 50 ARCHIVES OF GEN'L PSYCHIATRY 217 (1993); J.M. Bailey & R.C.  
25 Pillard, *A Genetic Study of Male Sexual Orientation*, 48 ARCHIVES OF GEN'L PSYCHIATRY 1089  
26 (1991). But a 50 percent concordance rate among identical twins does not suggest that genetic  
27 influences are primary, since it is illogical to conclude that if one twin was gay, that 100 percent of  
28 other identical twins are gay. Other twin studies support this conclusion. *See* Niklas Langstrom, *et*  
*al., Genetic and Environmental Effects of Same-Sex Sexual Behavior: A Population of Twins in*  
*Sweden*, Arch.Sexual Behav. (forthcoming) (finding genetic effects explained .34-.39 of the  
variance in men and .18-.19 of the variance in women and concluding that “same-sex behavior  
arises not only from heritable but also from individual specific environmental sources.”); Michael

1 King & Elizabeth McDonald, *Homosexuals who are Twins*, 160 *British J. Psychiatry* 407, 409  
2 (1992) (finding a striking “discordance for sexual orientation in both monozygotic and dizygotic  
3 pairs . . . [that] confirms that genetic factors are insufficient explanation of the development of  
4 sexual orientation” and concluding “[i]t is clear that our current genetic and psychological theories  
5 are untenable. The co-twins of men and women who identify themselves as homosexual appear to  
6 have a potential for a range of sexual expression.”). Moreover, sociologists Bearman and Bruckner  
7 point out that using common heritability estimates suggests that many voluntary social actions are  
8 the result of genetic influence. In explanation, they note a study that suggests “substantial  
9 heritability for caring for tropical fish (28%), and frequency of various behaviors such as  
10 purchasing folk music in the past year (46%), chewing gum (58%), and riding a taxi (38%).”  
11 Bearman & Bruckner, *supra* at 1185 note 8.

12 A small-scale study published in 2000 showed even lower concordance rates of 31.6  
13 percent. Kenneth S. Kendler, et al., *Sexual Orientation in a U.S. National Sample of Twin and  
14 Nontwin Sibling Pairs*, 157 *AM. J. OF PSYCHIATRY* 1843, 1845 (2000) (sample of nineteen pairs).

15 Identical twin studies suffer from some of the same recruitment problems that other non-  
16 probability or “convenience” samples face. Identical twins who are more alike are more likely to  
17 volunteer for identical twin registries, for example, and some studies rely on twin’s estimates of  
18 their twin’s orientation, which have been shown to be unreliable. Columbia professors Bearman  
19 and Bruckner note that “[a]s samples become more representative, concordance on sexual behavior,  
20 attraction, and orientation, as expected, declines.” Bearman & Bruckner, *supra* at 1184. Their own  
21 study focused on “same-sex romantic attraction” in a large, nationally representative sample (the  
22 Add-Health database, which is representative of all teens in schools in the late 1990s). This study  
23 found no noticeable pattern suggesting genetic influence at all. Concordance rates for identical  
24 twins were only 6.7 percent, which was about the same as the 7.2 percent found for fraternal twins.  
25 *Id.* at 1197-1198. They concluded: “[W]e find no support for genetic influences on same-sex  
26 preference net of social structural constraints. . . . Finally, we find substantial indirect evidence in  
27 support of a socialization model at the individual level.” *Id.* at 1199.

28 There is no scientific consensus that orientation is exclusively or primarily genetic in  
origin. This makes orientation fundamentally different in character from race or gender.

1 **CONCLUSION**

2 Society is rapidly moving towards greater acceptance of and accommodations for the  
3 legitimate social needs of gay and lesbian individuals. It would be a mistake for the court to freeze  
4 into law a view of sexual orientation that does not hold up under current scientific scrutiny and may  
5 well not hold up under future scientific scrutiny. Many gay people, especially lesbians, are clearly  
6 asserting their right to a homosexual identity as a matter of choice, not genes, and recent scientific  
7 research support their conclusion that, in this respect, homosexuality is not analogous to race or  
8 gender.

9 We suggest that it would be inappropriate for this court to conclude that strict scrutiny is  
10 needed to protect orientation as a class, or to mandate a redefinition of marriage when no scientific  
11 or social consensus exists on the nature, membership and characteristics of the class claiming  
12 discrimination.

12 Respectfully submitted, /s/

13 Dated: January 8, 2010

14 \_\_\_\_\_  
15 Steven N.H. Wood, Esq. (CA SBN 161291)  
16 Christopher J. Schweickert, Esq. (CA SBN 225942)  
17 **BERGQUIST, WOOD & ANDERSON, LLP**  
18 1470 Maria Lane, Suite 300  
19 Walnut Creek, CA 94596  
20 Telephone: (925) 938-6100  
21 Facsimile: (925) 938-4354  
22 wood@wcjuris.com  
23 cjs@wcjuris.com

24 Attorneys for *Amicus Curiae* Paul R. McHugh, M.D.