

Richard Eppink (Bar No. 7503)
AMERICAN CIVIL LIBERTIES UNION
OF IDAHO FOUNDATION
P. O. Box 1897
Boise, ID 83701
United States
T: (208) 344-9750 ext. 1202
REppink@acluidaho.org

Gabriel Arkles*
James Esseks*
Chase Strangio*
AMERICAN CIVIL LIBERTIES UNION
FOUNDATION
125 Broad St.,
New York, NY 10004
T: (212) 549-2569
garkles@aclu.org
jesseks@aclu.org
cstrangio@aclu.org

Kathleen Hartnett*
COOLEY LLP
101 California Street 5th Floor
San Francisco, CA 94111-5800
T: (415) 693-2000
F: (415) 693-2222
khartnett@cooley.com

Elizabeth Prelogar*
COOLEY LLP
1299 Pennsylvania Avenue,
NW Suite 700
Washington D.C. 20004-2400
T: (202) 842-7800
F: (202) 842-7899
eprelogar@cooley.com

Andrew Barr*
COOLEY LLP
380 Interlocken Crescent,
Ste. 900
Broomfield, CO 80021-8023
T: (720) 566-4000
F: (720) 566-4099
abarr@cooley.com

Catherine West*
LEGAL VOICE
907 Pine Street, Unit 500
Seattle, WA 98101
T: (206) 682-9552
F: (206) 682-9556
cwest@legalvoice.org

* Admitted *Pro hac vice*

Attorneys for Plaintiffs

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO**

LINDSAY HECOX, et al.,

Plaintiffs,

v.

BRADLEY LITTLE, et al.,

Defendants.

No. 1:20-cv-184-CWD

**SUPPLEMENTAL DECLARATION
OF DEANNA ADKINS, MD, IN
SUPPORT OF PLAINTIFFS'
MOTION FOR PRELIMINARY
INJUNCTION**

I, Deanna Adkins, MD, declare as follows:

1. I have personal knowledge of the matters stated in this declaration.

2. As set forth in greater detail in my previously submitted declaration dated April 24, 2020, my background and credentials include the following: I served as the Fellowship Program Director of Pediatric Endocrinology at Duke University School of Medicine for fourteen years and am currently the Director of the Duke Center for Child and Adolescent Gender Care; I have treated approximately 500 transgender and intersex young people in my career. My CV is attached to my previously submitted declaration.

3. I reviewed the declaration of Stephen Levine, MD, dated June 4, 2020. Here, I respond to the central points raised in Dr. Levine's declaration. I do not specifically address each study or article cited by Dr. Levine, but instead explain the overall problems with some of the conclusions that he draws and provide data showing why such conclusions are in error. I reserve the right to supplement my opinions concerning Dr. Levine's opinions if necessary as the case proceeds.

“BIOLOGICAL SEX”

4. In his discussion of “the biological baseline of sex,” Dr. Levine provides no citations—with the exception of one citation to his own work—and oversimplifies the biological components of sex.

5. As I explained in paragraphs 42 through 44 of my previous declaration, sex-related characteristics include external genitalia, internal reproductive organs,

gender identity, chromosomes, and secondary sex characteristics. All of these characteristics have biological bases.

6. Dr. Levine claims that “The sex of a human individual at its core structures the individual’s biological reproductive capabilities—to produce ova and bear children as a mother, or to produce semen and beget children as a father.” (Levine Decl. ¶ 12.) But this is not how we define or think about sex as a matter of science of medicine. For example, many individuals are unable to produce ova or semen, but have other sex characteristics. I have been involved in designating sex for over one hundred infants and the medical standards look at multiple factors, among which reproductive capacity is just one, to determine sex assignments at birth.¹ If we designate sex incorrectly at birth, protocol is to update it once the person is old enough to articulate their gender identity and re-assign consistent with gender identity.

7. It also is not correct that in medicine we only look at whether an individual has 46-XX or 46-XY chromosomes to understand the biological components of sex. (Levine Decl. ¶12.) As the Endocrine Society guidelines explain, the terms “[b]iological sex, biological male or female . . . are imprecise and should be avoided.”² Generally speaking, “[t]hese terms refer to physical aspects of maleness

¹ Cools, M., Nordenström, A., Robeva, R. et al., Caring for individuals with a difference of sex development (DSD): a Consensus Statement. *Nat Rev Endocrinol* 14, 415–429 (2018).

² Hembree, Wiley C., et al., Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, *J Clin Endocrinol Metab*, Vol. 102, Issue 11, 1 November 2017, 3869–3903.; Berenbaum S., et al., Effects on gender identity of prenatal androgens and genital appearance:

and femaleness [but] these may not be in line with each other (e.g., a person with XY chromosomes may have female-appearing genitalia).”³

TREATMENT PROTOCOLS FOR TRANSGENDER YOUTH

8. I am currently a provider to approximately 350 transgender youth.

Each patient is treated individually by a multi-disciplinary team.

9. Though Dr. Levine claims that the treatment protocols for transgender youth and adolescents recommended by the World Professional Association for Transgender Health (“WPATH”), the Endocrine Society, and the American Academy of Pediatrics (“AAP”) are not in the best interests of such patients, that is contrary to an overwhelming body of contemporary research that says the opposite as well as to the teachings of clinical practice, including mine.

Evidence from girls with congenital adrenal hyperplasia. *J Clin Endocrinol Metab* 2003;88(3):1102-6; Dittmann R, et al., Congenital adrenal hyperplasia. I: Gender-related behavior and attitudes in female patients and sisters. *Psychoneuroendocrinology* 1990;15(5-6):401-20; Cohen-Kettenis P. Gender change in 46,XY persons with 5alpha-reductase-2 deficiency and 17beta-hydroxysteroid dehydrogenase-3 deficiency. *Arch Sex Behav* 2005;34(4):399-410; Reiner W, Gearhart J. Discordant sexual identity in some genetic males with cloacal exstrophy assigned to female sex at birth. *N Engl J Med* 2004;350(4):333-41.

³ Wylie et al. (2017); Meyer-Bahlburg H. Gender identity outcome in female-raised 46,XY persons with penile agenesis, cloacal exstrophy of the bladder, or penile ablation. *Arch Sex Behav* 2005;34(4):423-38; Reiner W. Assignment of sex in neonates with ambiguous genitalia. *Curr Opin Pediatr* 1999;11(4):363-5; Byne W, Sekaer C. *The question of psychosexual neutrality at birth*. In Legato M, ed. Principles of Gender Specific Medicine. San Diego: Academic Press, 2004:155-66. Coates S, Wolfe S. Assessment of gender and sex in children in Noshpitz J, ed. Handbook of Child and Adolescent Psychiatry: Clinical Assessment/Intervention. New York: John Wiley and Sons; 2004:242-52; Cohen-Bendahan C, van de Beek C, Berenbaum S. Prenatal sex hormone effects on child and adult sex-typed behavior: methods and findings. *Neurosci Biobehav Rev* 2005;29(2):353-84.

10. WPATH is the leading association of medical and mental health professionals in the treatment of transgender individuals. The AAP is an association representing more than 67,000 pediatricians. The Endocrine Society is an organization representing more than 18,000 endocrinologists. WPATH and the Endocrine Society have published widely accepted standards of care for treating gender dysphoria, which are based on considerable scientific and medical research, and which have been endorsed by the AAP.

11. Dr. Levine critiques WPATH because it is “a voluntary membership organization” and “attendance at its biennial meetings has been open to trans individuals who are not licensed professionals.” (Levine ¶ 54.) This critique is misplaced, as an organization can be both an advocacy and a scientific organization, as is WPATH. This is not a new phenomenon in medicine. The American Diabetes Association, for example, is a professional association that both advocates for patients with diabetes and is a scientific organization. Rigorous papers are presented at the WPATH meetings and well-funded scientific research is reported on.

12. Dr. Levine’s critique also ignores the November 2017 Endocrine Society Guidelines on the treatment of gender-incongruent persons. This more recent treatment protocol mirrors the WPATH Standards of Care and recommends pubertal suppression and gender-affirming hormone therapy for adolescents and young adults who meet the clinical standards.⁴ The guidelines were developed

⁴ Wylie et al. (2017).

through rigorous scientific processes in which “followed the approach recommended by the Grading of Recommendations, Assessment, Development, and Evaluation group, an international group with expertise in the development and implementation of evidence-based guidelines.”⁵ The guidelines affirm that patients with gender dysphoria often must be treated with “a safe and effective hormone regimen that will (1) suppress endogenous sex hormone secretion determined by the person’s genetic/gonadal sex and (2) maintain sex hormone levels within the normal range for the person’s affirmed gender.”⁶

13. Dr. Levine critiques WPATH and its members claiming, “most current members of WPATH have little ongoing experience with the mentally ill.” (Levine Decl. ¶ 60.) In my clinic, as is recommended by the Endocrine Guidelines, every patient is treated by a multi-disciplinary team that includes a social worker, psychological, psychiatrist, and an endocrinologist. The providers are all well-trained faculty and clinicians at Duke with years of experience diagnosing and treating mental health conditions.

14. Dr. Levine’s only support for his critique of the AAP’s position on affirming gender identity in youth is an article by James Cantor in the Journal of Sex & Marital Therapy. Cantor’s article is his opinion and critique but relies on outdated evidence and misinformation about the benefits of gender affirming

⁵ *Id.*

⁶ *Id.*

treatment for children and adolescents.⁷ In any event, a lone critique of the medical standards that govern the profession is not a legitimate basis to attack well-researched, widely accepted medical protocols. By contrast, these protocols are being followed by thousands of medical providers to achieve life-saving ends for our patients.

15. Dr. Levine claims that “the use of puberty blockers for transgender children, [is] a recent phenomenon.” (Levine Decl. ¶ 83.) However, puberty blockers began to be used in transgender patients in 2004, which is not considered recent in medicine. We also have over thirty years of data on the impact of puberty blockers on children who undergo precocious puberty⁸ that we can apply to the transgender population. There is no evidence of short or long-term negative effects on patients who receive puberty blockers from the more than thirty years of data that we have. And for transgender youth (as compared to those treated for precocious puberty), the treatment is used for a much shorter period of time, in order to pause puberty before either initiating puberty with cross-sex hormones or resuming endogenous puberty. This medication is also used in adolescents and adults undergoing

⁷ Olson, K. R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137(3). Durwood, L., McLaughlin, K. A., & Olson, K. R. (2017). Mental health and self-worth in socially transitioned transgender youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(2), 116-123.

⁸ Children with precocious puberty develop signs of puberty before the typically expected time. In some this can happen as early as 12 months of age and puberty blockers are used to pause puberty until the appropriate time.

chemotherapy to preserve fertility and in patients with hormone sensitive cancers, like breast and prostate cancer.

16. Though Dr. Levine warns about delaying puberty, pubertal suppression in transgender youth does not delay puberty beyond the typical range. (Levine Decl. ¶ 92.) Pubertal development has a very wide variation among individuals. Puberty in individuals assigned male at birth typically begins anywhere from age nine to age fourteen, and sometimes does not complete until a person's early twenties. For those individuals assigned female at birth, puberty typically ranges from age eight to age seventeen.⁹ Protocols used for transgender youth would tend to put them in the latter third of typical puberty but nothing outside of the typical range.¹⁰ As such there is no reason to assume, and no data to support, Dr. Levine's assumption that slightly delaying puberty will have negative short- or long-term consequences. This is particularly true given the life-saving results early treatment has for transgender youth.¹¹

17. Dr. Levine incorrectly suggests that lifelong hormone treatment is, as a blanket matter, bad for one's health. (Levine Decl. ¶¶ 92–93.) There is nothing inherently harmful about undergoing hormone treatment to sustain one's health. Many transgender people have been on hormone therapy for decades, and we are

⁹ Wyshak, Grace, PhD and Frisch, Rose E., Evidence for a Secular Trend in Age of Menarche, April 29, 1982, *N Engl J Med* 1982; 306:1033-1035.

¹⁰ Wylie et al. (2017); Euling SY, Herman-Giddens ME, Lee PA, et al. Examination of U.S. puberty-timing data from 1940 to 1994 for secular trends: panel Findings. *Pediatrics*. 2008;1221: S172–S191.

¹¹ Turban JL, King D, Carswell JM, et al. Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation. *Pediatrics*. 2020;145(2):e20191725.

not seeing proof of negative health outcomes as a result. Likewise, many non-transgender individuals must undergo hormone treatment for the majority of their lives, and it is well-managed. This includes patients with Turner syndrome, Klinefelter syndrome, premature ovarian failure, and cancer. Moreover, not all individuals who initiate gender-affirming hormone therapy continue such therapy for the entirety of their lives. Transgender women who have testicles surgically removed, for example, no longer take testosterone suppressors after the procedure. Some transgender individuals also may limit or change the dose of hormone therapy that is needed at different stages of life, not unlike cisgender women undergoing menopause and experiencing changing hormones.

18. It also is not true, as Dr. Levine suggests, that gender-affirming surgical treatment that involves the removal of internal reproductive organs is “inevitably sterilizing.” (Levine ¶ 90.) Many people undergo fertility preservation before any treatment that would compromise fertility. Many more transgender people may be treated with gender affirming surgery that has no impact on fertility such as chest reconstruction, breast augmentation, and facial feminization, which are among the more common surgical treatments for transgender patients. Though Dr. Levine warns of risks of infertility related to gender-affirming hormone therapy, this too is speculative and not borne out by data. Many transgender individuals conceive children after undergoing hormone therapy.¹² More generally, many

¹² Light AD, Obedin-Maliver J, Sevelius JM, Kerns JL. Transgender men who experienced pregnancy after female-to-male gender transitioning. *Obstet Gynecol.* 2014;124(6):1120-1127; Maxwell S, Noyes N, Keefe D, Berkeley AS, Goldman KN.

medical interventions that are necessary to preserve a person's health and well-being can impact an individual's fertility, but we proceed with the treatment after informed consent.

19. Given the extreme dysphoria that many transgender individuals experience with respect to their genitals, it is not true, as Dr. Levine suggests, that data concerning loss of genital sensation and orgasm in non-transgender individuals can be applied to transgender individuals. (Levine Decl. ¶ 91.) Distress of genital change and sensation loss for someone who has a positive association with their genital characteristics does not translate to the experience of someone who might experience disgust and extreme distress at the sight of their genitals. It is simply not reasonable to compare cisgender experiences to transgender experience in the context of genital sensation.

20. Though Dr. Levine attacks the widely accepted treatment protocols for transgender patients, recent studies affirm just how critical such treatment is for the long-term health of pediatric patients with gender dysphoria. In a 2020 study published in *Pediatrics*, the official journal of the American Academy of Pediatrics, researchers concluded that "Treatment with pubertal suppression among those who wanted it was associated with lower odds of lifetime suicidal ideation when compared with those who wanted pubertal suppression but did not receive it.

Pregnancy Outcomes After Fertility Preservation in Transgender Men. *Obstet Gynecol.* 2017;129(6):1031-1034; Neblett MF 2nd, Hipp HS. Fertility Considerations in Transgender Persons. *Endocrinol Metab Clin North Am.* 2019;48(2):391-402.

Suicidality is of particular concern for this population because the estimated lifetime prevalence of suicide attempts among transgender people is as high as 40%.”¹³ More recent studies than those cited by Dr. Levine also show significantly improved outcomes for patients who undergo gender-affirming surgery when such surgery is medically indicated.¹⁴

21. Ultimately, it appears from Dr. Levine’s declaration that his central point is that it is not healthy to be transgender and that government policies and medical practice should consider efforts to make people not transgender (i.e., encourage people to live in accordance with their assigned sex at birth rather than their gender identity). This approach to treating transgender people is known to be extremely harmful and is considered unethical by every major medical association.¹⁵

¹³ Turban JL, King D, Carswell JM, et al. Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation. *Pediatrics*. 2020;145(2):e20191725.

¹⁴ Bränström, R., & Pachankis, J. E. (2019). Reduction in mental health treatment utilization among transgender individuals after gender-affirming surgeries: a total population study. *American Journal of Psychiatry*; Wiepjes, C. M., et al. (2018). The Amsterdam cohort of gender dysphoria study (1972–2015): trends in prevalence, treatment, and regrets. *The Journal of Sexual Medicine*, 15(4), 582-590.

¹⁵ American Academy of Child & Adolescent Psychiatry. Conversion Therapy. 2018. https://www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx; American Medical Association. Health care needs of lesbian, gay, bisexual and transgender populations. H-160.991. 2017. <https://policysearch.ama-assn.org/policyfinder/detail/H-160.991%20?uri=%2FAMADoc%2FHOD.xml-0-805.xml>; Rafferty, J., & Committee on Psychosocial Aspects of Child and Family Health. (2018). Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*, 142(4).

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on: 6/28/2020



Deanna Adkins, MD

EXHIBIT C

BIBLIOGRAPHY

1. American Academy of Child & Adolescent Psychiatry. Conversion Therapy. 2018. https://www.aacap.org/AACAP/Policy_Statements/2018/Conversion_Therapy.aspx.
2. American Medical Association. Health care needs of lesbian, gay, bisexual and transgender populations. H-160.991. 2017. <https://policysearch.ama-assn.org/policyfinder/detail/H-160.991%20?uri=%2FAMADoc%2FHOD.xml-0-805.xml>.
3. Berenbaum S., et al., Effects on gender identity of prenatal androgens and genital appearance: Evidence from girls with congenital adrenal hyperplasia. *J Clin Endocrinol Metab* 2003; 88(3):1102-6.
4. Coates S, Wolfe S. Assessment of gender and sex in children in Noshpitz J, ed. Handbook of Child and Adolescent Psychiatry: Clinical Assessment/Intervention. New York: John Wiley and Sons; 2004:242-52.
5. Cohen-Bendahan C, van de Beek C, Berenbaum S. Prenatal sex hormone effects on child and adult sex-typed behavior: methods and findings. *Neurosci Biobehav Rev* 2005; 29(2):353-84.
6. Cohen-Kettenis P. Gender change in 46,XY persons with 5alpha-reductase-2 deficiency and 17beta-hydroxysteroid dehydrogenase-3 deficiency. *Arch Sex Behav* 2005; 34(4):399-410.
7. Cools, M., Nordenström, A., Robeva, R. et al. Caring for individuals with a difference of sex development (DSD): a Consensus Statement. *Nat Rev Endocrinol* 14, 415–429 (2018).
8. Dittmann R, Kappes M, Kappes M, et al., Congenital adrenal hyperplasia. I: Gender-related behavior and attitudes in female patients and sisters. *Psychoneuroendocrinology* 1990; 15(5-6):401-20.
9. Durwood, L., McLaughlin, K. A., & Olson, K. R. (2017). Mental health and self-worth in socially transitioned transgender youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(2), 116-123.
10. Hembree, Wiley C., et al., Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, *J Clin Endocrinol Metab*, Vol. 102, Issue 11, 1 November 2017, 3869–3903.

11. Light AD, Obedin-Maliver J, Sevelius JM, Kerns JL. Transgender men who experienced pregnancy after female-to-male gender transitioning. *Obstet Gynecol.* 2014;124(6):1120-1127.
12. Maxwell S, Noyes N, Keefe D, Berkeley AS, Goldman KN. Pregnancy Outcomes After Fertility Preservation in Transgender Men. *Obstet Gynecol.* 2017;129(6):1031-1034.
13. Meyer-Bahlburg H. Gender identity outcome in female-raised 46,XY persons with penile agenesis, cloacal exstrophy of the bladder, or penile ablation. *Arch Sex Behav* 2005; 34(4):423-38.
14. Neblett MF 2nd, Hipp HS. Fertility Considerations in Transgender Persons. *Endocrinol Metab Clin North Am.* 2019;48(2):391-402.
15. Olson, K. R., Durwood, L., DeMeules, M., & McLaughlin, K. A. (2016). Mental health of transgender children who are supported in their identities. *Pediatrics*, 137(3).
16. Rafferty, J., & Committee on Psychosocial Aspects of Child and Family Health. (2018). Ensuring comprehensive care and support for transgender and gender-diverse children and adolescents. *Pediatrics*, 142(4).
17. Reiner W. Assignment of sex in neonates with ambiguous genitalia. *Curr Opin Pediatr* 1999;11(4):363-5; Byne W, Sekaer C. *The question of psychosexual neutrality at birth.* In Legato M, ed. *Principles of Gender Specific Medicine.* San Diego: Academic Press, 2004:155-66.
18. Reiner W, Gearhart J. Discordant sexual identity in some genetic males with cloacal exstrophy assigned to female sex at birth. *N Engl J Med* 2004;350(4):333-41.
19. Turban JL, King D, Carswell JM, et al. Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation. *Pediatrics.* 2020;145(2): e20191725.
20. Wiepjes, C. M., et al. (2018). The Amsterdam cohort of gender dysphoria study (1972–2015): trends in prevalence, treatment, and regrets. *The Journal of Sexual Medicine*, 15(4), 582-590.
21. Wylie et al. (2017); Euling SY, Herman-Giddens ME, Lee PA, et al. Examination of U.S. puberty-timing data from 1940 to 1994 for secular trends: panel Findings. *Pediatrics.* 2008;1221: S172–S191.
22. Wyshak, Grace, PhD and Frisch, Rose E., Evidence for a Secular Trend in Age of Menarche, April 29, 1982, *N Engl J Med* 1982; 306:1033-1035.