FILED 09/15/2023 *Amy McGhee* CLERK Missoula County District Court STATE OF MONTANA By: <u>Matthew Tanna</u> DV-32-2023-0000541-CR Marks, Jason 121.00

Akilah Deernose Alex Rate **ACLU of Montana** P.O. Box 1968 Missoula, MT 59806 | 406-203-3375 deernosea@aclumontana.org ratea@aclumontana.org

Malita Picasso* Arijeet Sensharma* ACLU Foundation 125 Broad Street New York, NY 10004 | 212-549-2561 mpicasso@aclu.org asensharma@aclu.org

Elizabeth O. Gill* ACLU Foundation 39 Drumm Street San Francisco, CA 94109 | 415-343-1237 egill@aclunc.org

Matthew P. Gordon Heather Shook* Courtney Schirr* Sara Cloon* Kayla Lindgren* **Perkins Coie LLP** 1201 Third Avenue, Suite 4900 Seattle, WA 98101 | 206-359-8000 mgordon@perkinscoie.com hshook@perkinscoie.com scloon@perkinscoie.com klindgren@perkinscoie.com Peter C. Renn* Kell Olson* Lambda Legal Defense and Education Fund 800 S. Figueroa Street, Suite 1260 Los Angeles, CA 90017 | 213-382-7600 prenn@lambdalegal.org kolson@lambdalegal.org

Nora Huppert* Lambda Legal Defense and Education Fund 65 E. Wacker Place, Suite 2000 Chicago, IL 60601 | 312-663-4413 nhuppert@lambdalegal.org

*admitted pro hac vice

IN THE FOURTH JUDICIAL DISTRICT COURT MISSOULA COUNTY

SCARLET VAN GARDEREN, a) minor by and through her guardians Jessica van Garderen) and Ewout van Garderen; JESSICA VAN GARDEREN, an) individual; EWOUT VAN GARDEREN, an individual; **PHOEBE CROSS**, a minor by and through his guardians Molly **Cross and Paul Cross: MOLLY CROSS**, an individual; PAUL **CROSS**, an individual; JANE DOE, an individual; JOHN DOE, an individual; JUANITA HODAX, on behalf of herself and her patients; KATHERINE **MISTRETTA**, on behalf of herself and her patients, Plaintiffs, v. **STATE OF MONTANA; GREGORY GIANFORTE**, in his official capacity as Governor of the State of Montana; AUSTIN KNUDSEN, in his official capacity as Attorney General; MONTANA **BOARD OF MEDICAL EXAMINERS; MONTANA BOARD OF NURSING; MONTANA DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES; CHARLIE**) **BRERETON**, in his official) capacity as Director of DPHHS,)

Case No. DV-23-541

Hon. Judge: Jason Marks

Defendants.

REBUTTAL DECLARATION OF DANIELLE N MOYER, PHD

I, Danielle N. Moyer, PhD, hereby declare and state as follows:

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation. The views expressed herein are my own and do not express the views or opinions of my employer.

2. I previously submitted an expert report in this case. The purpose of this declaration is to respond to some of the opinions offered in the declarations filed by Drs. Cantor, Nangia, Roman, Weiss, and Laidlaw in Opposition to Plaintiffs' Motion for Preliminary Injunction.

3. I have knowledge of the matters stated in this declaration. If called to testify in this matter, I would testify truthfully and based on my own expert opinions.

4. My background and qualifications are described in my original report. In preparing this report, I reviewed the reports from Defendants' designated experts listed above, and responded to some of their central opinions in those declarations. I reserve the right to supplement the opinions contained in this report if necessary as this case proceeds.

SUMMARY OF OPINIONS

5. Drs. Cantor, Nangia, Roman, Weiss, and Laidlaw (1) present a critique of the evidence supporting medical treatment for gender dysphoria that is

misleading and holds gender-affirming treatment to a far higher standard than other medical interventions; (2) rely on unfounded and irrelevant arguments about "desistance" that have nothing to do with the law at issue; (3) make sweeping claims about transgender adolescents based entirely on the completely unsupported notion of "Rapid-Onset Gender Dysphoria"; and (4) present no evidence to support the view that psychotherapy alone is effective to treat gender dysphoria itself in the absence of gender-affirming medical care.

A. The critique of the evidence is misleading and holds gender-affirming treatment to a far higher standard than other medical interventions.

6. The Defendants' designated experts critique the evidence supporting gender-affirming medical care in ways that are both misleading and hold gender-affirming medical care to a far higher standard than other forms of medical care.

7. Dr. Cantor points to some systematic reviews to critique the quality of the evidence supporting gender-affirming medical care, which the reviews categorize as "low quality" under the GRADE system. Under the GRADE system, this designation does not mean the evidence is of poor quality but rather primarily that there is an absence of randomized controlled trials (RCT). The lack of RCTs in this area is not a reason to question the legitimacy of existing treatment guidelines. First, RCTs for gender-affirming medical care for adolescents would generally be methodologically and ethically inappropriate, as researchers have explained.^{1 2} Second, "quality" under the GRADE system has a very specific meaning, and as a systematic review of Cochrane systematic reviews found, exceedingly few medical interventions—less than ten percent—are supported by "high-quality" evidence under GRADE.³

8. In fact, as a similar systematic review of systematic reviews found, *most* medical interventions—around 55 percent—are supported by the same level

of evidence under GRADE as gender-affirming medical care.⁴ Defendants'

designated experts appear to suggest that gender-affirming medical care should be

held to some different standard of evidence than other medical interventions,

without any justification.

¹ Ashley, F., Tordoff, D. M., Olson-Kennedy, J., & Restar, A. J. (2023). Randomized-controlled trials are methodologically inappropriate in adolescent transgender healthcare. *International Journal of Transgender Health*, 1-12. https://doi.org/10.1080/26895269.2023.2218357 ² In fact, researchers very recently announced the results of a randomized clinical trial that demonstrated benefits in gender-affirming testosterone among adult patients. This was made possible by the study design, which importantly did not introduce any additional delays in treatment for the control group, but rather accelerated the standard timetable for the intervention group while the control group underwent the clinic's standard three-month delay. Nolan B.J., Zwickl S., Locke P., Zajac J.D., Cheung A.S.. Early Access to Testosterone Therapy in Transgender and Gender-Diverse Adults Seeking Masculinization: A Randomized Clinical Trial. *JAMA Network Open*.

³ Howick, J., Koletsi, D., Ioannidis, J.P.A., Madigan, C., Pandis, N., Loef, M., Walach, H., Sauer, S., Kleijnen, J., Seehra, J., Johnson, T., & Schmidt, S. (2022). Most healthcare interventions tested in Cochrane Reviews are not effective according to high quality evidence: a systematic review and meta-analysis. *J Clinical Epidemiology*. https://doi.org/10.1016/j.jclinepi.2022.04.017.

⁴ Fleming, P.S., Koletsi, D. Ioannidis, J.P.A., & Pandis N. High quality of evidence is uncommon in Cochrane systematic reviews in *J Clinical Epidemiology*. https://doi.org/10.1016/j.jclinepi.2016.03.012.

9. Dr. Cantor also ignores systematic reviews that have focused on specific aspects of care. Systematic reviews that have focused on the mental health of transgender adolescents have consistently pointed to medical treatment as a protective factor for mental health.⁵ These reviews show that gender-affirming medical care is associated with reduced gender dysphoria and better mental health, interpersonal relationships, and overall quality of life. Other types of reviews that employ similarly rigorous methodology, such as scoping reviews, can also provide valuable summaries of existing research, and have similarly highlighted access to medical treatment as a protective factor (meaning a factor that reduces this risk) for adolescents with gender dysphoria.⁶

10. Dr. Cantor also relies on a few reports from European countries that purport to conclude that there is a lack of evidence showing a benefit of genderaffirming medical care for adolescents. With one exception, these reports are not peer reviewed, and they exclude relevant and reliable studies. The systematic

⁵ Christensen, J. A., Oh, J., Linder, K., Imhof, R. L., Croarkin, P. E., Bostwick, J. M., & McKean, A. J. S. (2023). Systematic Review of Interventions to Reduce Suicide Risk in Transgender and Gender Diverse Youth. *Child Psychiatry Hum Dev*. https://doi.org/10.1007/s10578-023-01541-w Mezzalira, S., Scandurra, C., Mezza, F., Miscioscia, M., Innamorati, M., & Bochicchio, V. (2022). Gender Felt Pressure, Affective Domains, and Mental Health Outcomes among Transgender and Gender Diverse (TGD) Children and Adolescents: A Systematic Review with Developmental and Clinical Implications. *Int J Environ Res Public Health*, *20*(1). https://doi.org/10.3390/ijerph20010785
⁶ Patrick, K. L. (2020). Transgender identity and mental health in adolescence: A scoping review. *medRxiv*. https://doi.org/10.1101/2020.08.20.20178897, McCann, E., Keogh, B., Doyle, L., & Coyne, I. (2019). The Experiences of Youth Who Identify as Trans* in Relation to Health and Social Care Needs: A Scoping Review. *Youth & Society*, *51*(6), 840-864. https://doi.org/10.1177/0044118x17719345

review from Sweden⁷ acknowledged that several studies "found significantly improved overall psychosocial function after GnRHa treatment" and "significantly improved self-rated quality of life after treatment." Ultimately, of the 6 studies included in the review that reported on mental health after medical treatment in adolescents with gender dysphoria, 5 out of 6 showed improvements, and 1 study showed no difference. I am an author on the study that showed no difference,⁸ and we appropriately expected this outcome given the short time frame. This study was intended to continue to follow-up at additional time points, however our clinical operations shifted dramatically after this paper's publication due to the COVID-19 pandemic.

11. Dr. Cantor then critiques each of 13 cohort studies he identifies regarding the safety and efficacy of gender-affirming medical care for transgender adolescents. Dr. Cantor starts with 4 studies that he says show little to no improvement in mental health following gender-affirming care. One of these is the study by my team, which I discuss above. Another investigated puberty blockers

⁷ Ludvigsson, J. F., Adolfsson, J., Hoistad, M., Rydelius, P. A., Kristrom, B., & Landen, M. (2023). A systematic review of hormone treatment for children with gender dysphoria and recommendations for research. *Acta Paediatr*. https://doi.org/10.1111/apa.16791
 ⁸ Cantu, A. L., Moyer, D. N., Connelly, K. J., & Holley, A. L. (2020). Changes in Anxiety and

Depression from Intake to First Follow-up Among Transgender Youth in a Pediatric Endocrinology Clinic. *Transgender Health*. https://doi.org/10.1089/trgh.2019.0077 alone,⁹ the results of which are consistent with my understanding of the research on puberty blockers and my clinical experience. Specifically, while puberty blockers tend to prevent *worsening* of gender dysphoria, it is not until gender-affirming changes from hormones begin that adolescents typically start to see true improvement in their gender dysphoria. Preventing the worsening of gender dysphoria is a positive clinical outcome under these circumstances and indicates that the intervention is working as intended. Moreover, the body of research as a whole demonstrates a clear direction—the fact that some studies did not detect statistically significant improvements does not negate the overall picture that emerges from the research showing that the treatment is beneficial.

12. There are other studies Dr. Cantor declines to cite,¹⁰ including crosssectional studies, which clearly identify medical care for adolescents with gender

⁹ Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., Skageberg, E. M., Khadr, S., & Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PLoS One*, *16*(2), e0243894. https://doi.org/10.1371/journal.pone.0243894

¹⁰ Arnoldussen, M., Hooijman, E. C., Kreukels, B. P., & de Vries, A. L. (2022). Association between pre-treatment IQ and educational achievement after gender-affirming treatment including puberty suppression in transgender adolescents. *Clin Child Psychol Psychiatry*, 27(4), 1069-1076. https://doi.org/10.1177/13591045221091652

dysphoria, and in particular earlier access to this care,¹¹ as a protective factor against negative mental health outcomes again and again.¹²

a. Informed Consent and Assessment

13. Drs. Nangia and Roman make further misleading claims about adolescent development to make the argument that legal age of majority in the United States of 18 is the only time when an adolescent and their parent should be allowed to make healthcare decisions related to gender dysphoria.

14. Importantly, considering decision-making capacity in isolation ignores the crucial role of parents and caregivers in decision making. Dr. Nangia makes the far-reaching claim that this care should not even be provided when parents and adolescents can both provide informed consent, once again holding gender-affirming care to a different standard than other comparable medical treatments. Across all medical contexts, the American Academy of Pediatrics recommends increasing the level of inclusion of children and adolescents in their healthcare decisions over time to maximize decision making capacity.¹³ Regarding

 ¹¹ Turban, J. L., King, D., Kobe, J., Reisner, S. L., & Keuroghlian, A. S. (2022). Access to gender-affirming hormones during adolescence and mental health outcomes among transgender adults. *PLoS One*, *17*(1), e0261039. https://doi.org/10.1371/journal.pone.0261039
 ¹² Owen-Smith, A. A., Gerth, J., Sineath, R. C., Barzilay, J., Becerra-Culqui, T. A., Getahun, D., Giammattei, S., Hunkeler, E., Lash, T. L., Millman, A., Nash, R., Quinn, V. P., Robinson, B., Roblin, D., Sanchez, T., Silverberg, M. J., Tangpricha, V., Valentine, C., Winter, S., . . . Goodman, M. (2018). Association Between Gender Confirmation Treatments and Perceived Gender Congruence, Body Image Satisfaction, and Mental Health in a Cohort of Transgender Individuals. *J Sex Med*, *15*(4), 591-600. https://doi.org/10.1016/j.jsxm.2018.01.017
 ¹³ Committee On, B. (2016). Informed Consent in Decision-Making in Pediatric Practice. *Pediatrics*, *138*(2). https://doi.org/10.1542/peds.2016-1484

adolescents with gender dysphoria specifically, decision making capacity has similarly been established using the MacArthur Competence Assessment Tool for Treatment (MacCat-T), which is a tool used across healthcare contexts to assess competence to consent to treatment.¹⁴ A qualitative study of adolescents with gender dysphoria, their parents, and healthcare providers similarly supports decision making capacity for gender-affirming hormones.¹⁵

15. Dr. Nangia's criticism fails to recognize the role of healthcare providers in discussing the risks, benefits, and current state of the evidence of any given treatment with their patients and families, as well as assessing transgender adolescents' capacity for decision-making. The WPATH Standards of Care, Version 8 (WPATH SOC8) recommends the involvement of multiple disciplines (including mental health and medical), adolescents, and all relevant caregivers in all decisions about gender-affirming medical care.¹⁶ The WPATH SOC8 further recommends that mental health providers start with an evaluation of gender

¹⁴ Vrouenraets, L., de Vries, A. L. C., de Vries, M. C., van der Miesen, A. I. R., & Hein, I. M. (2021). Assessing Medical Decision-Making Competence in Transgender Youth. *Pediatrics*, *148*(6). https://doi.org/10.1542/peds.2020-049643

¹⁵ Clark, B. A., & Virani, A. (2021). This Wasn't a Split-Second Decision": An Empirical Ethical Analysis of Transgender Youth Capacity, Rights, and Authority to Consent to Hormone Therapy. *J Bioeth Inq*. https://doi.org/10.1007/s11673-020-10086-9

¹⁶ Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., de Vries, A. L. C., Deutsch, M. B., Ettner, R., Fraser, L., Goodman, M., Green, J., Hancock, A. B., Johnson, T. W., Karasic, D. H., Knudson, G. A., Leibowitz, S. F., Meyer-Bahlburg, H. F. L., Monstrey, S. J., Motmans, J., Nahata, L., . . . Arcelus, J. (2022). Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. *Int J Transgend Health*, *23*(Suppl 1), S1-S259. https://doi.org/10.1080/26895269.2022.2100644

identity development, social development and supports, diagnostic assessment of mental health and developmental concerns, and capacity for decision making, and that medical providers maintain an ongoing relationship with patients and relevant caregivers to support decision making throughout any gender-affirming medical interventions.

16. As medical and mental health providers, our medical team must stay up-to-date on the latest research, professional guidelines, and clinical experience in order to appropriately counsel our patients. As with other areas of healthcare, we discuss the risks and benefits of a treatment, both known and unknown, and ensure that patients and families understand the information provided. By working in a multidisciplinary setting, consistent with recommended standards of care, we are also able to do so with multiple professional perspectives and knowledge.

B. Claims about "desistence" are entirely irrelevant to S.B. 99, and are unfounded and misleading.

17. The state's designated experts make various claims about *desistence*, which describes young people who have been diagnosed with gender identity disorder or gender dysphoria who do not go on to identify as transgender in adolescence and adulthood. The studies cited by Defendants' experts exclusively concern desistence in prepubertal children, and thus are entirely irrelevant to this case given that there are *no* medical interventions recommended for or prescribed *to prepubertal children*.

18. Transgender adolescents—those who have reached puberty—are the group who may be eligible to receive the treatments banned by S.B. 99, and it is rare for transgender youth who have reached puberty to later identify as cisgender or "desist." Defendants' designated experts identify no study that claims otherwise: as explained below, the literature they do purport to rely on does not support their claim.

19. In addition to being irrelevant as described above, the literature regarding desistance among prepubertal children that Defendants' experts point to also primarily studied a group of youth that included many young people who were never transgender in the first place. These studies were largely conducted under the outdated diagnostic criteria of the prior "gender identity disorder" diagnosis, which included many young people who were diagnosed or referred because they exhibited gender non-conforming traits, but never had a cross-gender identification. The limitation of that former diagnosis was corrected in the current diagnosis of "gender dysphoria," which specifically requires clinically significant distress and "a strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender)." Thus, many of these studies reflected "desistence" among a group that included some young transgender people and also some young cisgender masculine girls or cisgender feminine boys. This is evident even from the titles of

some of the cohort studies on which Dr. Cantor relies on to show desistence, like "The 'sissy boy syndrome' and the development of homosexuality" and "Early effeminate behavior in boys: Outcome and significance for homosexuality." It is not surprising that groups of children that include both cisgender and transgender young people will include some number who will not identify as transgender in adulthood because they never were transgender to begin with.

20. Additionally, only 4 out of the 11 cohort studies that Cantor cites regarding desistence are from the last 20 years. Two of the four more recent studies are well-known studies conducted in the Netherlands. While these studies have and do contribute to our knowledge, they also considered those lost to follow-up to be desisters. It is inappropriate to assume that all young people who did not return to the clinic necessarily no longer identified as transgender. Our most up-to-date research shows very low rates of desistence among even prepubertal children—a recent longitudinal study demonstrated that only 2.5% of transgender prepubertal children this fact, writing that "the majority of kids who continue to feel trans after puberty rarely cease."¹⁸

¹⁷ Olson, K. R., Durwood, L., Horton, R., Gallagher, N. M., & Devor, A. (2022). Gender Identity 5 Years After Social Transition. *Pediatrics*, *150*(2). https://doi.org/10.1542/peds.2021-056082
¹⁸ Cantor, J. (2020). When is a "TERF" not a TERF? Sexology Today!, http://www.sexologytoday.org/2020/07/when-is-terf-not-terf.html. Dr. Cantor has also acknowledged on his website that "one does not choose to be dysphoric." http://www.jamescantor.org/bill-of-rights.html.

21. Drs. Cantor and Laidlaw attempt to explain low rates of desistence by claiming that social transition itself causes some transgender youth to persist in their gender identity. This is not supported by the evidence, which in fact demonstrates that gender identification "may not meaningfully differ before and after social transition."¹⁹

C. "Rapid-Onset Gender Dysphoria" is a completely unsupported concept, and does not provide any basis for Defendants' sweeping claims about transgender adolescents.

22. Defendants' designated experts also make various claims about "Rapid-Onset Gender Dysphoria," or ROGD, which a is a term introduced by Lisa Littman in a single article in 2018 to describe a theorized group of transgender adolescents who come to experience gender dysphoria rapidly as a result of purported social influence or "social contagion."²⁰ The study received significant criticism for flaws in study design, methodology, and conclusions.²¹ Perhaps the most significant problem with the study was that results were based entirely on parent reports, with no contact or association with any transgender adolescents or

https://doi.org/10.1371/journal.pone.0202330

¹⁹ Rae, J. R., Gülgöz, S., Durwood, L., DeMeules, M., Lowe, R., Lindquist, G., & Olson, K. R. (2019). Predicting early-childhood gender transitions. *Psychological Science*. https://doi.org/10.1177/0956797619830649

²⁰ Littman, L. (2018). Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. PLoS One, 13(8), e0202330.

²¹ Restar, A. J. (2020). Methodological Critique of Littman's (2018) Parental-Respondents Accounts of "Rapid-Onset Gender Dysphoria". *Arch Sex Behav*, 49(1), 61-66.

https://doi.org/10.1007/s10508-019-1453-2 ; Ashley, F. (2020). A critical commentary on 'rapidonset gender dysphoria'. *The Sociological Review*, 68(4), 779-799. https://doi.org/10.1177/0038026120934693

clinicians, and those parents were recruited largely from websites dedicated specifically for those who hold strong oppositional beliefs about their child's gender identity, including "transgendertrend" and "Youth Trans Critical Professionals." In 2019, after post-publication review, the journal concluded that there were problems with the goals, methodology, and conclusions of the study, issued an apology, and republished the study with several corrections, one of which clarified that the original study "does not validate the phenomenon" of ROGD.²² Because the Littman study was based entirely on parent reports and participants were recruited mostly from communities that expressed skepticism about young transgender people, the parents' report of the time of onset of their child's gender dysphoria are not reliable. It is also a mistake to conflate the moment in which a transgender person shares their gender identity with others with the date that they experienced it themselves—research shows highly variable timing of recognition, understanding, and disclosure of a transgender identity, and that "several years typically elapsed between realization" and "sharing this with another person."23

²² Littman, L. (2019). Correction: Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. PLoS One, 14(3), e0214157. https://doi.org/10.1371/journal.pone.0214157

²³ Turban, J. L., Dolotina, B., Freitag, T. M., King, D., & Keuroghlian, A. S. (2023). Age of Realization and Disclosure of Gender Identity Among Transgender Adults. *J Adolesc Health*, 72(6), 852-859. https://doi.org/10.1016/j.jadohealth.2023.01.023

23. Despite the article's obvious flaws, the intense criticism it received concerning those flaws, and the correction notice, Drs. Cantor and Laidlaw rely solely on the Littman article to support extremely broad and sweeping claims that today's transgender adolescents are "characteristically distinct" from earlier groups of transgender people that have been studied, Cantor Decl. ¶135, and that transgender adolescents are spurred on by "social contagion," Laidlaw Decl. ¶234. Drs. Nangia and Roman also make claims about "social contagion," though these appear to be supported by nothing other than conjecture about *other* areas of medical care that Drs. Nangia and Roman claim have been identified as "social contagions," and a book by a journalist entitled "Irreversible Damage: The Transgender Craze Seducing Our Daughters." Nangia Decl. ¶36; Roman Decl. ¶31.

24. The state's experts also attempt to make a misleading claim about the ratio of transgender adolescents assigned female versus male at birth. While recent research conducted within gender clinics do tend to show a higher percentage of adolescents assigned female at birth, the ratio in the general population is nearly equal.²⁴ The higher proportion of those assigned female at birth in gender clinics likely has several causes and is also not unique to this diagnosis. For example, we see shifting sex ratios in other diagnoses like ADHD and Autism Spectrum

²⁴ Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Sex Assigned at Birth Ratio Among Transgender and Gender Diverse Adolescents in the United States. *Pediatrics*, *150*(3). https://doi.org/10.1542/peds.2022-056567

Disorder. There are many complex factors that may affect sex ratio referrals to gender clinics including (1) the high amount of distress and dysphoria that often arises from the sudden onset of menstrual cycles, which is unique from the other gradual pubertal changes,²⁵ and (2) the fact that gender nonconformity is still more stigmatized in those assigned male at birth,²⁶ which can lead to more violence when coming out and delay access to care in adolescence. This stigma of gender nonconformity in those assigned male at birth also drove higher rates of referrals of assigned males in the past because it caused particular anxiety among parents. The increase in birth assigned females is likely in some ways just a process of catching up to our understanding of diagnosis of gender dysphoria in trans boys. Indeed, during the early stages of the COVID-19 pandemic, our clinic saw a shift in the ratio lessening the gap between the two groups, which has more recently returned to baseline. Many patients assigned male at birth specifically described feeling like they could come out and seek care precisely because they were not in school and did not have to worry about bullying or harassment from their peers.

25. Finally, the state's designated experts also make various claims about the co-occurrence or presence of mental health conditions among transgender

²⁵ Schwartz, B. I., Effron, A., Bear, B., Short, V. L., Eisenberg, J., Felleman, S., & Kazak, A. E. (2022). Experiences with Menses in Transgender and Gender Nonbinary Adolescents. *J Pediatr Adolesc Gynecol*, *35*(4), 450-456. https://doi.org/10.1016/j.jpag.2022.01.015

²⁶ van Beusekom, G., Collier, K. L., Bos, H. M. W., Sandfort, T. G. M., & Overbeek, G. (2020). Gender Nonconformity and Peer Victimization: Sex and Sexual Attraction Differences by Age. J Sex Res, 57(2), 234-246. https://doi.org/10.1080/00224499.2019.1591334

adolescents, again relying solely on the Littman article to make broad, sweeping claims about transgender adolescents, including that mental health conditions may be mistaken for gender dysphoria; for example, in Cantor's section XI.C, which is simply titled "Mental health issues in Adolescent-Onset Gender Dysphoria (ROGD)," he makes several such claims.

26. Dr. Cantor draws a distinction between suicidality ("suicidal ideation, threats, and gestures") and suicide ("the sincere intent to die"), Cantor Decl. ¶138, and suggests that "reported suicidality" among transgender minors may reflect mere "attempts to evoke more support" rather than a sincere marker of deep distress. *Id.* at ¶150. Suicidality and the distress that it represents are things that every mental health provider should be deeply concerned about. Additionally, Dr. Cantor's claim ignores that suicidality is highly linked to completed suicide.²⁷ Dr. Cantor uses the distinction to attempt to argue both that transgender adolescents experience suicidality to get attention and social support, and that medical transition does not help to reduce completed suicides. The assertion that transgender youth experience suicidality for attention is particularly cruel and ignores all available evidence to the fact that gender and sexual minority youth

²⁷ Large, M., Corderoy, A., & McHugh, C. (2021). Is suicidal behaviour a stronger predictor of later suicide than suicidal ideation? A systematic review and meta-analysis. *Aust N Z J Psychiatry*, *55*(3), 254-267. https://doi.org/10.1177/0004867420931161

experience high rates of suicidality and suicide, highly related to minority stress.²⁸ Through my practice, I have met an unfortunate number of adolescents who have only come out to their parents in the hospital following a failed suicide attempt. They describe years of increasing dysphoria and fear of rejection as culminating in the attempt to end their own life. Rather than attempting to "get attention", these young people spend years in hiding for fear of negative consequences from coming out to family and community.

27. Drs. Cantor and Nangia both make the inaccurate claim that medical intervention worsens suicide risk. To make this claim, the state's experts rely heavily on a study published in 2011 regarding mortality and morbidity among adults who underwent gender-affirming surgeries in Sweden between 1973 and 2003.²⁹ The use of this study is misleading in several ways. Most critically, this study compared patients who received gender-affirming surgery with the general population. It is not surprising that even after treatment – particularly treatment as long as 50 years ago at times of great stigma – patients were not experiencing mental health outcomes comparable to a non-transgender general population

²⁸ de Lange, J., Baams, L., Bos, H., Bosker, R., Dumon, E., Portzky, G., Robinson, J., & van Bergen, D. (2022). Moderating role of coping in the association between minority stress and suicidal ideation and suicide attempts among sexual and gender minority young adults. *Suicide Life Threat Behav*, *52*(6), 1178-1192. https://doi.org/10.1111/sltb.12913

²⁹ Dhejne, C., Lichtenstein, P., Boman, M., Johansson, A. L., Langstrom, N., & Landen, M. (2011). Long-term follow-up o ftranssexual persons undergoing sex reassignment surgery: cohort study in Sweden. PloS One, 6(2), e16885. Https://doi.org/10.1371/journal.pone.0016885

baseline. Indeed, as the study authors themselves point out, concluding that treatment was not effective from the continued mental health issues faced by the study participants should not be done. They note, "things might have been even worse without" surgery. "As an analogy," the study explains, "studies have found increased somatic morbidity, suicide rate, and overall mortality for patients treated for bipolar disorder and schizophrenia ... this is important information, but it does not follow that mood stabilizing treatment or antipsychotic treatment is the culprit." Though gender-affirming treatment alone is not enough to prevent the increased mortality and morbidity in transgender individuals when compared to the general population, that in no way suggests that they should be prohibited when there is a wealth of data and clinical evidence that shows these treatments improve health outcomes.

28. The only other study relied upon by the state's experts to make the claim that interventions are associated with worsening of suicide risk is one that shows improvements in psychosocial functioning after 2 years on gender-affirming hormones among adolescents with gender dysphoria.³⁰ Dr. Weiss' claim, for example, that the adolescents in this study showed a higher rate of suicide risk than

 ³⁰ Chen, D., Berona, J., Chan, Y. M., Ehrensaft, D., Garofalo, R., Hidalgo, M. A., Rosenthal, S. M., Tishelman, A. C., & Olson-Kennedy, J. (2023). Psychosocial Functioning in Transgender Youth after 2 Years of Hormones. *N Engl J Med*, *388*(3), 240-250. https://doi.org/10.1056/NEJMoa2206297

age-matched population is misleading for multiple reasons. It again fails to recognize that treatment alone does not change the effects of discrimination and minority stress that may be impacting some individuals. This claim also implies that comparing these youth to the general population has any statistical generalizability to the effects of the intervention.

29. Drs. Cantor and Roman also misrepresent research on autism spectrum disorder (ASD) in an attempt to suggest that gender dysphoria in adolescents may actually be just a manifestation of ASD. Dr. Cantor cites a systematic review³¹ to support his assertion that because the two have overlapping features, it is too difficult to distinguish them. In fact, the part of the discussion he is referencing is primarily making the point that autism may be over-identified in transgender youth rather than the other way around. The section of the discussion Dr. Cantor quotes from is under the headline "Prevalence of Autism Spectrum Disorder in Individuals with GD," which discusses and critiques the methods of how autism was diagnosed, and goes on to say that there are features of gender dysphoria that might create false positives on autism screen measures (not vice versa). This review explicitly states that a diagnosis of autism should not prevent

³¹ Thrower, E., Bretherton, I., Pang, K. C., Zajac, J. D., & Cheung, A. S. (2019). Prevalence of Autism Spectrum Disorder and Attention-Deficit Hyperactivity Disorder Amongst Individuals with Gender Dysphoria: A Systematic Review. *J Autism Dev Disord*. https://doi.org/10.1007/s10803-019-04298-1

access to affirming medical interventions for adolescents with gender dysphoria. Of note, this systematic review concludes that its body of evidence is designated as the same quality as some of the evidence in systematic reviews that Dr. Cantor elsewhere claims should not be relied upon.

30. Dr. Nangia repeatedly makes claims meant to imply that trauma and associated mental health concerns contribute to gender dysphoria, and that treatment of trauma "remits" gender dysphoria. Dr. Roman inaccurately states that when there are multiple diagnoses present, the DSM-5 says that "the main problem must be defined" and that "an alternative condition [to gender dysphoria] is often the main problem." Roman Decl. ¶35. In fact, there are many diagnoses in the DSM-5 that can be considered co-occurring without one being primary to the other, and there's no evidence that mental health concerns contribute to gender dysphoria can contribute to other mental health conditions such as depression and anxiety, with those latter conditions often abating when the underlying gender dysphoria is treated.

31. Finally, Dr. Cantor discusses borderline personality disorder, which has long historical roots in the over-pathologizing of people with transgender identities. In fact, a recent study showed that even today, transgender people with

the *same* symptoms as cisgender people are diagnosed with borderline personality at significantly higher rates.³²

D. No evidence is provided for the alternative idea that psychotherapy alone, in the absence of gender-affirming medical care, is effective to treat gender dysphoria.

32. Defendants' designated experts suggest that the alternative to medical treatment should be psychotherapy alone to treat adolescents with gender dysphoria. This argument is made despite the fact that there exist no systematic reviews, or even individual studies that I am aware of, that psychotherapy alone is effective at treating gender dysphoria in the absence of any gender-affirming medical care for those who need such medical care.

33. Of course, all adolescents can benefit from psychotherapy and it is an important part of overall mental health management for patients with gender dysphoria to help with other causes of mental health distress, including environmental stressors and minority stress. But psychotherapy is not a substitute for medical interventions to treat gender dysphoria. The alternative to medical treatments suggested by the state's experts—banning gender-affirming medical care and providing psychotherapy alone—has no basis in research or clinical experience. The views expressed by the state's designated experts are outliers and

³² Rodriguez-Seijas, C., Morgan, T. A., & Zimmerman, M. (2023). Transgender and Gender Diverse Patients Are Diagnosed with Borderline Personality Disorder More Frequently Than Cisgender Patients Regardless of Personality Pathology. *Transgender Health*. https://doi.org/10.1089/trgh.2023.0062

not representative of the broad medical consensus. All relevant professional organizations disagree with their assessment and support gender-affirming medical treatment for adolescents with gender dysphoria.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 14th day of September 2023.

Daniello Moyer

Danielle N. Moyer, PhD

EXHIBIT 1

BIBLIOGRAPHY

APA. (2021). Resolution on Gender Identity Change Efforts.

Arnoldussen, M., Hooijman, E. C., Kreukels, B. P., & de Vries, A. L. (2022). Association between pre-treatment IQ and educational achievement after gender-affirming treatment including puberty suppression in transgender adolescents. *Clin Child Psychol Psychiatry*, 27(4), 1069-1076. <u>https://doi.org/10.1177/13591045221091652</u>

Ashley, F. (2020). A critical commentary on 'rapid-onset gender dysphoria'. *The Sociological Review*, 68(4), 779-799. <u>https://doi.org/10.1177/0038026120934693</u>

Ashley, F., Tordoff, D. M., Olson-Kennedy, J., & Restar, A. J. (2023). Randomized-controlled trials are methodologically inappropriate in adolescent transgender healthcare. *International Journal of Transgender Health*, 1-12. <u>https://doi.org/10.1080/26895269.2023.2218357</u>

Campbell, T., & Rodgers, Y. V. M. (2023). Conversion therapy, suicidality, and running away: An analysis of transgender youth in the U.S. *J Health Econ*, *89*, 102750. https://doi.org/10.1016/j.jhealeco.2023.102750

Cantor, J. (2020). When is a "TERF" not a TERF? *Sexology Today!*, http://www.sexologytoday.org/2020/07/when-is-terf.html.

Cantu, A. L., Moyer, D. N., Connelly, K. J., & Holley, A. L. (2020). Changes in Anxiety and Depression from Intake to First Follow-up Among Transgender Youth in a Pediatric Endocrinology Clinic. *Transgender Health*. <u>https://doi.org/10.1089/trgh.2019.0077</u>

Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., Skageberg, E. M., Khadr, S., & Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PLoS One*, *16*(2), e0243894. <u>https://doi.org/10.1371/journal.pone.0243894</u>

Chen, D., Berona, J., Chan, Y. M., Ehrensaft, D., Garofalo, R., Hidalgo, M. A., Rosenthal, S. M., Tishelman, A. C., & Olson-Kennedy, J. (2023). Psychosocial Functioning in Transgender Youth after 2 Years of Hormones. *N Engl J Med*, *388*(3), 240-250. https://doi.org/10.1056/NEJMoa2206297

Christensen, J. A., Oh, J., Linder, K., Imhof, R. L., Croarkin, P. E., Bostwick, J. M., & McKean, A. J. S. (2023). Systematic Review of Interventions to Reduce Suicide Risk in Transgender and Gender Diverse Youth. *Child Psychiatry Hum Dev*. <u>https://doi.org/10.1007/s10578-023-01541-w</u>

Clark, B. A., & Virani, A. (2021). This Wasn't a Split-Second Decision": An Empirical Ethical Analysis of Transgender Youth Capacity, Rights, and Authority to Consent to Hormone Therapy. *J Bioeth Inq*. <u>https://doi.org/10.1007/s11673-020-10086-9</u>

Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., de Vries, A. L. C., Deutsch, M. B., Ettner, R., Fraser, L., Goodman, M., Green, J., Hancock, A. B., Johnson, T. W., Karasic, D. H., Knudson, G. A., Leibowitz, S. F., Meyer-Bahlburg, H. F. L., Monstrey, S. J., Motmans, J.,

Nahata, L., . . . Arcelus, J. (2022). Standards of Care for the Health of Transgender and Gender Diverse People, Version 8. *Int J Transgend Health, 23*(Suppl 1), S1-S259. <u>https://doi.org/10.1080/26895269.2022.2100644</u>

Committee On, B. (2016). Informed Consent in Decision-Making in Pediatric Practice. *Pediatrics*, *138*(2). <u>https://doi.org/10.1542/peds.2016-1484</u>

de Lange, J., Baams, L., Bos, H., Bosker, R., Dumon, E., Portzky, G., Robinson, J., & van Bergen, D. (2022). Moderating role of coping in the association between minority stress and suicidal ideation and suicide attempts among sexual and gender minority young adults. *Suicide Life Threat Behav*, *52*(6), 1178-1192. <u>https://doi.org/10.1111/sltb.12913</u>

Dhejne, C., Lichtenstein, P., Boman, M., Johansson, A. L., Langstrom, N., & Landen, M. (2011). Long-term follow-up of transsexual persons undergoing sex reassignment surgery: cohort study in Sweden. *PloS One*, *6*(2), e16885. <u>Https://doi.org/10.1371/journal.pone.0016885</u>

Fleming, P.S., Koletsi, D. Ioannidis, J.P.A., & Pandis N. High quality of evidence is uncommon in Cochrane systematic reviews in *J Clinical Epidemiology*. https://doi.org/10.1016/j.jclinepi.2016.03.012.

Howick, J., Koletsi, D., Ioannidis, J.P.A., Madigan, C., Pandis, N., Loef, M., Walach, H., Sauer, S., Kleijnen, J., Seehra, J., Johnson, T., & Schmidt, S. (2022). Most healthcare interventions tested in Cochrane Reviews are not effective according to high quality evidence: a systematic review and meta-analysis. *J Clinical Epidemiology*. https://doi.org/10.1016/j.jclinepi.2022.04.017.

Large, M., Corderoy, A., & McHugh, C. (2021). Is suicidal behaviour a stronger predictor of later suicide than suicidal ideation? A systematic review and meta-analysis. *Aust N Z J Psychiatry*, *55*(3), 254-267. <u>https://doi.org/10.1177/0004867420931161</u>

Littman, L. (2018). Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*, *13*(8), e0202330. https://doi.org/10.1371/journal.pone.0202330

Littman, L. (2019). Correction: Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*, *14*(3), e0214157. https://doi.org/10.1371/journal.pone.0214157

Ludvigsson, J. F., Adolfsson, J., Hoistad, M., Rydelius, P. A., Kristrom, B., & Landen, M. (2023). A systematic review of hormone treatment for children with gender dysphoria and recommendations for research. *Acta Paediatr*. <u>https://doi.org/10.1111/apa.16791</u>

McCann, E., Keogh, B., Doyle, L., & Coyne, I. (2019). The Experiences of Youth Who Identify as Trans* in Relation to Health and Social Care Needs: A Scoping Review. *Youth & Society*, *51*(6), 840-864. <u>https://doi.org/10.1177/0044118x17719345</u>

Mezzalira, S., Scandurra, C., Mezza, F., Miscioscia, M., Innamorati, M., & Bochicchio, V. (2022). Gender Felt Pressure, Affective Domains, and Mental Health Outcomes among

Transgender and Gender Diverse (TGD) Children and Adolescents: A Systematic Review with Developmental and Clinical Implications. *Int J Environ Res Public Health*, 20(1). https://doi.org/10.3390/ijerph20010785

Nolan B.J., Zwickl S., Locke P., Zajac J.D., Cheung A.S.. Early Access to Testosterone Therapy in Transgender and Gender-Diverse Adults Seeking Masculinization: A Randomized Clinical Trial. *JAMA Network Open*.

Olson, K. R., Durwood, L., Horton, R., Gallagher, N. M., & Devor, A. (2022). Gender Identity 5 Years After Social Transition. *Pediatrics*, *150*(2). <u>https://doi.org/10.1542/peds.2021-056082</u>

Owen-Smith, A. A., Gerth, J., Sineath, R. C., Barzilay, J., Becerra-Culqui, T. A., Getahun, D., Giammattei, S., Hunkeler, E., Lash, T. L., Millman, A., Nash, R., Quinn, V. P., Robinson, B., Roblin, D., Sanchez, T., Silverberg, M. J., Tangpricha, V., Valentine, C., Winter, S., . . . Goodman, M. (2018). Association Between Gender Confirmation Treatments and Perceived Gender Congruence, Body Image Satisfaction, and Mental Health in a Cohort of Transgender Individuals. *J Sex Med*, *15*(4), 591-600. <u>https://doi.org/10.1016/j.jsxm.2018.01.017</u>

Patrick, K. L. (2020). Transgender identity and mental health in adolescence: A scoping review. *medRxiv*. <u>https://doi.org/10.1101/2020.08.20.20178897</u>

Rae, J. R., Gülgöz, S., Durwood, L., DeMeules, M., Lowe, R., Lindquist, G., & Olson, K. R. (2019). Predicting early-childhood gender transitions. *Psychological Science*. <u>https://doi.org/10.1177/0956797619830649</u>

Restar, A. J. (2020). Methodological Critique of Littman's (2018) Parental-Respondents Accounts of "Rapid-Onset Gender Dysphoria". *Arch Sex Behav*, *49(1)*, 61-66. https://doi.org/10.1007/s10508-019-1453-2

Rodriguez-Seijas, C., Morgan, T. A., & Zimmerman, M. (2023). Transgender and Gender Diverse Patients Are Diagnosed with Borderline Personality Disorder More Frequently Than Cisgender Patients Regardless of Personality Pathology. *Transgender Health*. <u>https://doi.org/10.1089/trgh.2023.0062</u>

Schwartz, B. I., Effron, A., Bear, B., Short, V. L., Eisenberg, J., Felleman, S., & Kazak, A. E. (2022). Experiences with Menses in Transgender and Gender Nonbinary Adolescents. *J Pediatr Adolesc Gynecol*, *35*(4), 450-456. <u>https://doi.org/10.1016/j.jpag.2022.01.015</u>

Thrower, E., Bretherton, I., Pang, K. C., Zajac, J. D., & Cheung, A. S. (2019). Prevalence of Autism Spectrum Disorder and Attention-Deficit Hyperactivity Disorder Amongst Individuals with Gender Dysphoria: A Systematic Review. *J Autism Dev Disord*. <u>https://doi.org/10.1007/s10803-019-04298-1</u>

Turban, J. L., Dolotina, B., Freitag, T. M., King, D., & Keuroghlian, A. S. (2023). Age of Realization and Disclosure of Gender Identity Among Transgender Adults. *J Adolesc Health*, 72(6), 852-859. <u>https://doi.org/10.1016/j.jadohealth.2023.01.023</u>

Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Sex Assigned at Birth Ratio Among Transgender and Gender Diverse Adolescents in the United States. *Pediatrics*, *150*(3). https://doi.org/10.1542/peds.2022-056567

Turban, J. L., King, D., Kobe, J., Reisner, S. L., & Keuroghlian, A. S. (2022). Access to genderaffirming hormones during adolescence and mental health outcomes among transgender adults. *PLoS One*, *17*(1), e0261039. <u>https://doi.org/10.1371/journal.pone.0261039</u>

van Beusekom, G., Collier, K. L., Bos, H. M. W., Sandfort, T. G. M., & Overbeek, G. (2020). Gender Nonconformity and Peer Victimization: Sex and Sexual Attraction Differences by Age. *J* Sex Res, 57(2), 234-246. <u>https://doi.org/10.1080/00224499.2019.1591334</u>

Vrouenraets, L., de Vries, A. L. C., de Vries, M. C., van der Miesen, A. I. R., & Hein, I. M. (2021). Assessing Medical Decision-Making Competence in Transgender Youth. *Pediatrics*, *148*(6). <u>https://doi.org/10.1542/peds.2020-049643</u>