Attachment 3

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

PETER POE, et al., *Plaintiffs*, v. GENTNER DRUMMOND, et al., *Defendants*.	Case No. 23-cv-00177-JFH-SH

EXPERT DECLARATION OF DEANNA ADKINS, MD

I, Deanna Adkins, M.D., 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. I am over 18 years of age, of sound mind, and in all respects competent to testify.

2. The purpose of this declaration is to provide my expert opinions on: (1) the clinical practice and impact of the widely-accepted and evidence-based treatment protocols for transgender adolescents with gender dysphoria including the provision of pubertal suppression treatment and hormone therapy; and (2) the severe risk of harm to adolescents with gender dysphoria of withholding or withdrawing this medical treatment where such treatment is medically necessary.

3. I have actual knowledge of the matters stated in this declaration, and have collected and cite to relevant literature concerning the issues that arise in this litigation in the body of the declaration.

4. In preparing this declaration, I reviewed Oklahoma Senate Bill 613 (hereinafter "medical care ban"), as well as materials cited here within. I also relied on my scientific

education and training, my research experience, my knowledge of the scientific literature in the pertinent fields, and my clinical experience treating adolescents with gender dysphoria, as set out in my curriculum vitae (Exhibit A).

5. The materials I have relied upon in preparing this declaration are the same types of materials that experts in my field regularly rely upon when forming opinions on these subjects.

6. I may wish to supplement these opinions or the bases for them as a result of new scientific research or publications or in response to statements and issues that may arise in my area of expertise.

BACKGROUND AND QUALIFICATIONS

7. I received my medical degree from the Medical College of Georgia in 1997. I served as the Fellowship Program Director of Pediatric Endocrinology at Duke University School of Medicine for 15 years and I am currently the Director of the Duke Center for Child and Adolescent Gender Care and Clinical Director of the Duke Gender Health and Wellness Program.

8. I have been licensed to practice medicine in the state of North Carolina since 2001.

9. I have extensive experience working with children with endocrine disorders, and I am an expert in the treatment of children with intersex traits, also known as differences or disorders of sex development, and in the treatment of adolescents with gender dysphoria. I have been treating patients with gender dysphoria since 2013.

10. I am a member of the American Academy of Pediatrics, the North Carolina Pediatric Society, the Pediatric Endocrine Society, and The Endocrine Society. I am also a member of the World Professional Association for Transgender Health ("WPATH"), the leading association of medical and mental health professionals in the treatment of transgender individuals.

11. I am the founder of the Duke Center for Child and Adolescent Gender Care (the "Duke Gender Care Clinic"), which opened in 2015. I currently serve as the director of the clinic. The Duke Gender Care Clinic sees patients between ages 5 and 22 with gender dysphoria and patients from birth to age 22 with differences or disorders of sex development ("DSDs"). I have been caring for these individuals in my routine practice for many years prior to opening the clinic.

12. I have treated approximately 745 transgender and intersex young people from North Carolina and across the Southeast at the Duke Gender Care Clinic.

13. As part of my practice, I stay familiar with the latest medical science and treatment protocols related to DSDs and gender dysphoria.

14. In the past six years, I was deposed and testified at trial as an expert in two cases: *Adams* v. *The School Board of St. Johns Cty., Florida*, No. 3:17-cv-00739-TJC-JBT, (M.D. Fla. Oct 1, 2017) and *Brandt et al. v. Rutledge, et al*., No. 21-CV-450 (D. Ark. 2021). I was also deposed in *B.P.J. v. W. Va. State Bd. of Ed.*, No. 2:21-cv-00316 (S.D. W. Va. 2021).

15. I am being compensated at an hourly rate of $250 per hour for preparation of expert declarations and reports, and $400 per hour for time spent preparing for or giving deposition or trial testimony. My compensation does not depend on the outcome of this litigation, the opinions I express, or the testimony I provide.

GENDER IDENTITY AND GENDER DYSPHORIA

16. A person's gender identity refers to a person's core understanding of belonging to a particular gender.

17. Although the precise origin of gender identity is unknown, a person's gender identity is a fundamental aspect of human development and there is a general medical consensus that there are significant biological roots to gender identity.

18. Everyone has a gender identity.

19. Most people have a gender identity that aligns with the sex they are designated at birth based on their external genitalia.[1] People whose sex designated at birth aligns with their gender identity are cisgender.

20. A transgender person is someone who has a gender identity that differs from the person's sex designated at birth.

21. A person's gender identity (regardless of whether they are transgender or cisgender) cannot be changed voluntarily or by external forces, and is not undermined or altered by the existence of other sex-related characteristics that do not align with it.[2]

22. In the American Psychiatric Association's Diagnostic & Statistical Manual of Mental Disorders ("DSM-5"), "gender dysphoria" is the diagnostic term for the condition where clinically significant distress results from the lack of congruence between a person's gender identity and the sex they were designated at birth. In order to be diagnosed with gender dysphoria, the incongruence must have persisted for at least six months and be accompanied by clinically significant distress or impairment in social, occupational, or other important areas of functioning. There are two separate diagnoses for gender dysphoria, one for gender dysphoria in childhood and the other for gender dysphoria in adolescence and adulthood.

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[1] The terms "sex designated at birth" or "sex assigned at birth" are more precise than the term "biological sex" because all of the physiological aspects of a person's sex are not always aligned with each other. For example, some people with intersex characteristics may have chromosomes typically associated with males but genitalia typically associated with females. See *Hembree WC, et al.* Endocrine treatment of gender-dysphoria/gender incongruent persons: An Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab* 2017; 102: 3869–3903, 3875, https://academic.oup.com/jcem/article/102/11/3869/4157558 (hereafter "Endocrine Guideline") ("Biological sex, biological male or female: These terms refer to physical aspects of maleness and femaleness. As these may not be in line with each other (e.g., a person with XY chromosomes may have female-appearing genitalia), the terms biological sex and biological male or female are imprecise and should be avoided.").

[2] Endocrine Guideline at 3874.

23. Being transgender is not itself a mental disorder or a medical condition to be cured. But gender dysphoria is a serious medical condition that, if left untreated, can result in severe anxiety and depression, self-harm, and suicidality.[3]

24. Before receiving treatment, many individuals with gender dysphoria have high rates of anxiety, depression and suicidal ideation. I have seen in my patients that without appropriate treatment this distress impacts every aspect of life.

TREATMENT PROTOCOLS FOR GENDER DYSPHORIA

25. When appropriately treated, gender dysphoria can be effectively managed. I currently treat hundreds of transgender patients. All of my patients who have received medical treatment for gender dysphoria have benefitted from clinically appropriate treatment.

26. The Endocrine Society and WPATH have published widely accepted guidelines for treating gender dysphoria, which are based on scientific research and clinical experience and represent the best evidence-based practice guidelines available for treating this condition: (i) The WPATH Standards of Care for the Health of Transgender and Gender Diverse People, Version 8 (SOC 8),[4] and (ii) the Endocrine Society Clinical Practice Guideline for Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons (the "Endocrine Society Guideline").[5] These

[3] Spack NP, Edwards-Leeper L, Feldmain HA, et al. Children and adolescents with gender identity disorder referred to a pediatric medical center. *Pediatrics*. 2012; 129(3):418-425. Olson KR, Durwood L, DeMeules M, McLaughlin KA. Mental health of transgender children who are supported in their identities. *Pediatrics*. 2016; 137:1-8.

[4] Coleman, E., *et al*. Standards of Care for the Health of Transgender and Gender Diverse People, Version 8, International Journal of Transgender Health, 23:sup1, S1-S259, DOI: 10.1080/26895269.2022.2100644. *Available at* https://doi.org/10.1080/26895269.2022.2100644 (hereafter, "WPATH SOC 8").

[5] Hembree, W.C., Cohen-Kettenis, P.T., Gooren, L., *et al*. Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline. *The Journal of Clinical Endocrinology & Metabolism*. 2017; 102(11):3869- 3903 (hereafter, "Endocrine Society Guideline").

guidelines have been endorsed by the American Academy of Pediatrics ("AAP").[6] WPATH is the leading association of medical and mental health professionals with expertise 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. These groups represent the largest professional associations in these fields of medicine in the United States.

27. The precise treatment for gender dysphoria depends on each person's individualized need, and the medical standards of care differ depending on whether the treatment is for a pre-pubertal child, an adolescent, or an adult.

28. Treatment for gender dysphoria is aimed at eliminating the clinically significant distress a patient experiences by helping the patient live in alignment with their gender identity. This treatment is sometimes referred to as "gender transition," "transition-related care," or "gender-affirming care."

29. All major medical professional groups in the United States, including the AAP, the American Medical Association, and the American Academy of Child and Adolescent Psychiatry, agree that this care is safe, effective, and medically necessary treatment when clinically indicated for the health and wellbeing of children and adolescents suffering from gender dysphoria.[7]

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[6] *See, e.g.*, Rafferty, J., Committee on Psychosocial Aspects of Child and Family Health, Committee on Adolescence and Section on Lesbian, Gay, Bisexual, & Transgender Health and Wellness. Policy Statement: Ensuring Comprehensive Care and Support for Transgender and Gender Diverse Children and Adolescents. Pediatrics. 2018; 142(4):2018-2162, at *6. *Available at*: https://pediatrics.aappublications.org/content/142/4/e20182162.

[7] Rafferty, J., Committee on Psychosocial Aspects of Child and Family Health, Committee on Adolescence and Section on Lesbian, Gay, Bisexual, & Transgender Health and Wellness. Policy Statement: Ensuring Comprehensive Care and Support for Transgender and Gender Diverse Children and Adolescents. *Pediatrics*. 2018; 142(4):2018-2162. *Available at*:

30. The Endocrine Society Guideline was developed through a rigorous scientific process that "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."[8] The Endocrine Society Guideline instructs clinicians that patients with gender dysphoria often benefit from treatment 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."[9]

31. The Endocrine Society Guideline for treatment of gender dysphoria is comparable to other clinical practice guidelines that I follow as a pediatric endocrinologist to treat other medical conditions such as those practice guidelines for Congenital Adrenal Hyperplasia (CAH) and Polycystic Ovary Syndrome (PCOS). These guidelines represent best practices for clinical management of various endocrine conditions based on the best available evidence, which is of similar quality to the evidence supporting the guidelines for treatment of gender dysphoria.

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https://pediatrics.aappublications.org/content/142/4/e20182162; Beers, L.S. American Academy of Pediatrics Speaks Out Against Bills Harming Transgender Youth. *American Academy of Pediatrics*. 2021. *Available at*: https://services.aap.org/en/news- room/news-releases/aap/2021/american-academy-of-pediatrics-speaks-out-against-bills- harming-transgender-youth/; AACAP Statement Responding to Efforts to Ban Evidence- Based Care for Transgender and Gender Diverse Youth. *American Academy of Child & Adolescent Psychiatry*. 2019. *Available at*: https://www.aacap.org/AACAP/Latest_News/AACAP_Statement_Responding_to_Effort s-to_ban_Evidence-Based_Care_for_Transgender_and_Gender_Diverse.aspx; State Advocacy Update. American Medical Association. 2021. *Available at*: https://www.ama-assn.org/health-care-advocacy/advocacy-update/march-26-2021-state-advocacy-update.

[8] Endocrine Society Guideline at 3872.

[9] Endocrine Society Guideline at 3869.

32. Before puberty, treatment for gender dysphoria does not include any drug or surgical intervention; prepubertal treatment may include "social transition," which means allowing a transgender child to live and be socially recognized in accordance with their gender identity.[10] This can include allowing children to wear clothing, to cut or grow their hair, to use names and pronouns, and to access restrooms and other sex-separated facilities and activities in line with their gender identity instead of the sex assigned to them at birth.

33. For many transgender adolescents with gender dysphoria, going through endogenous puberty can cause extreme distress. Pubertal suppression, known as GnRH agonists or GnRHa, allows adolescents with gender dysphoria to pause their endogenous puberty, thereby avoiding the heightened gender dysphoria and permanent physical changes that puberty would cause. This treat is reversible. It pauses puberty only for the duration of the treatment and gives a young person time to further understand their gender identity without the distress caused by the changes to their body that result from puberty and before initiating gender-affirming hormone therapy if it becomes medically indicated.

34. Pubertal suppression can be initiated up to mid-puberty and works by pausing endogenous puberty at the stage it has reached when the treatment begins. This has the impact of limiting the influence of a person's endogenous hormones on the body. For example, after the initiation of pubertal suppression, a girl who is transgender will stop experiencing the impacts of testosterone on her body for the duration of the treatment.

35. Under the Endocrine Society Guideline, transgender adolescents with gender dysphoria may be eligible for pubertal suppression if:

- A qualified mental health professional has confirmed that:

[10] Endocrine Society Guideline at 3877-79; WPATH SOC 8 at S39-40, 75-78.

- the adolescent has demonstrated a long-lasting and intense pattern of gender nonconformity or gender dysphoria (whether suppressed or expressed),
- gender dysphoria worsened with the onset of puberty,
- any coexisting psychological, medical, or social problems that could interfere with treatment (*e.g.*, that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start treatment,
- the adolescent has sufficient mental capacity to give informed consent to this (reversible) treatment, and

- The adolescent:
  - has been informed of the effects and side effects of treatment (including potential loss of fertility if the individual subsequently continues with sex hormone treatment) and options to preserve fertility,
  - has given informed consent and (particularly when the adolescent has not reached the age of legal medical consent, depending on applicable legislation) the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process,

- And a pediatric endocrinologist or other clinician experienced in pubertal assessment:
  i. agrees with the indication for GnRH agonist treatment,
  ii. has confirmed that puberty has started in the adolescent, and
  iii. has confirmed that there are no medical contraindications to GnRH agonist treatment.[11]

36. For some adolescents with gender dysphoria, initiating puberty consistent with gender identity through gender-affirming hormone therapy may also be medically necessary. When prescribed gender-affirming hormone therapy—testosterone for transgender boys, and

[11] Endocrine Society Guideline at 3878.

testosterone suppression and estrogen for transgender girls—the adolescent will go through hormonal puberty consistent with their gender identity on a comparable timeline to their non-transgender peers.

37. Under the Endocrine Society Guideline, transgender adolescents may be eligible for gender-affirming hormone therapy if:

- A qualified mental health professional has confirmed:
  - i. the persistence of gender dysphoria,
  - ii. any coexisting psychological, medical, or social problems that could interfere with treatment (*e.g.*, that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start sex hormone treatment,
  - iii. the adolescent has sufficient mental capacity to estimate the consequences of this (partly) irreversible treatment, weigh the benefits and risks, and give informed consent to this (partly) irreversible treatment, and
- The adolescent:
  - i. has been informed of the (irreversible) effects and side effects of treatment (including potential loss of fertility and options to preserve fertility),
  - ii. has given informed consent and (particularly when the adolescent has not reached the age of legal medical consent, depending on applicable legislation) the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process,
- And a pediatric endocrinologist or other clinician experienced in pubertal induction:
  - i. agrees with the indication for sex hormone treatment,
  - ii. has confirmed that there are no medical contraindications to sex hormone treatment.[12]

[12] Endocrine Society Guideline at 3878.

38. Before any medical treatment is initiated, the Endocrine Society Guideline and the WPATH SOC 8 provide that mental health evaluations should be conducted. The Endocrine Society Guideline specifies that mental health clinicians trained "in child and adolescent gender development (as well as child and adolescent psychopathology) should make the diagnosis, because assessing [Gender Dysphoria]/gender incongruence in children and adolescents is often extremely complex."[13] It further explains: "[i]n cases in which severe psychopathology, circumstances, or both seriously interfere with the diagnostic work or make satisfactory treatment unlikely, clinicians should assist the adolescent in managing these other issues."[14] The Endocrine Society Guideline takes very seriously the importance of ongoing mental health evaluation for purposes of accurate diagnosis as well as effective treatment. Ideally, this evaluation is done with a team of individuals operating in their fields of expertise, including hormonal management and mental health assessment.

39. The WPATH SOC 8 make clear that mental health professionals assessing for a gender dysphoria diagnosis should, among other things, conduct a careful assessment of "any mental health conditions that could negatively impact the outcome of gender-affirming medical treatments,[] with risks and benefits discussed, before a decision is made regarding treatment"[15] The WPATH SOC 8 specifically recognize that "[transgender and gender diverse] adolescents are at increased risk of mental health challenges, often related to family/caregiver rejection, non-affirming community environments, and neurodiversity-related factors," and that "like cisgender

[13] Endocrine Society Guideline at 3876.

[14] Endocrine Society Guideline at 3877.

[15] WPATH SOC 8 at S32.

youth, [transgender and gender diverse] youth may experience mental health concerns irrespective of the presence of gender dysphoria or gender incongruence."[16]

40. Under existing clinical guidelines and in my own clinical experience puberty-delaying medication and gender-affirming hormones are only provided after careful evaluation and where a patient is experiencing clinically significant distress related to consistent and persistent gender identification different from their assigned sex. Each stage of the treatment is carefully evaluated and can be changed at any time by carefully tapering a patient off of the treatment. In the case of puberty blocking medication, once stopped, a patient's endogenous puberty resumes. With hormone therapy, once stopped, a patient's naturally occurring hormones will continue to circulate. Though some effects of hormone therapy can be irreversible depending on the duration of the treatment, such as facial hair growth in patients on testosterone, many others are reversible once the treatment is stopped.

41. There is not an assumption that certain treatments are appropriate for every patient. "Recognizing the diverse and heterogeneous community of individuals who identify as transgender and gender diverse (TGD)," the WPATH SOC 8 explicitly states that "gender-affirming surgical treatments may be categorized along a spectrum of procedures for individuals assigned male at birth (AMAB) and assigned female at birth (AFAB)."[17] The standards of care do not recommend rushing into medical treatment. The Endocrine Society Guideline provides that prior to the initiation of any medical treatment "[t]ransgender individuals should be

[16] WPATH SOC 8 at S62.

[17] WPATH SOC 8 at S128.

encouraged to experience living in the new gender role and assess whether this improves their quality of life."[18]

PRACTICE AT DUKE GENDER CARE CLINIC

42. I am currently a provider to hundreds of adolescents with gender dysphoria at the Duke Gender Care Clinic.

43. When it is medically indicated for a transgender adolescent with gender dysphoria, I prescribe pubertal suppression starting at the Tanner 2 or Tanner 3 stages of puberty – never before. For people assigned male at birth, these stages of puberty are typically sometime between ages 9 and 14, and for people assigned female at birth, sometime between ages 8 and 12.

44. Where I first meet a patient that is further into puberty, in coordination with the Duke Gender Care Clinic's mental health providers, I assess the patient's individual medical needs. For all my patients under the age of 18, I require a referral letter from a mental health provider confirming the patient's gender dysphoria diagnosis. Depending on the patient's needs and the changes that have already been caused by their endogenous puberty, I either initiate pubertal suppression, and wait to initiate gender-affirming hormones until they are ready and it is medically indicated; or, for older adolescents, I initiate puberty consistent with their gender identity with gender-affirming hormones when a patient is ready and it is medically indicated.

45. The goal is to minimize the patient's gender dysphoria and initiate puberty consistent with gender identity within the typical age range, while also working with the patient and the patient's family to weigh the relative risks and benefits of each course of treatment. Protocols used to treat transgender youth with pubertal suppression do not put them outside of the

[18] Endocrine Society Guideline at 3878.

typical age range for puberty. There is wide variability among adolescents of pubertal development and transgender adolescents with gender dysphoria who are treated with puberty delaying treatment still undergo hormonal puberty (either endogenously if treatment is stopped or with gender-affirming hormone therapy) alongside their peers.

46. In my extensive clinical experience, I have observed the substantial benefits of pubertal suppression and gender-affirming hormones as treatment for adolescents with gender dysphoria. For some individuals, this treatment can eliminate or reduce the need for surgical treatment in adulthood.

PUBERTAL SUPPRESSION TREATMENT AND GENDER-AFFIRMING HORMONES ARE SAFE AND EFFECTIVE TREATMENTS FOR TRANSGENDER YOUTH

47. My clinical experience over 10 years is consistent with what has been documented through research, which is that, where medically indicated, the use of pubertal suppression and gender-affirming hormone therapy to treat adolescents with gender dysphoria is safe and effective.

48. Pubertal suppression began to be used in the United States to treat gender dysphoria around 2004, which is not considered recent in medicine. Beyond that, we have over 40 years of data on the impact of pubertal suppression treatment on children who undergo precocious puberty that we can apply to the transgender population. And for youth with gender dysphoria (as compared to those treated for precocious puberty), puberty is delayed for a much shorter period of time. Pubertal suppression medication is also used in adolescents and adults undergoing chemotherapy to preserve fertility and in patients with hormone sensitive cancers, like breast and prostate cancer, as well as for people with endometriosis.

49. From the more than 40 years of data that we have, there is no scientific evidence of short- or long-term negative effects on patients who receive pubertal suppression treatment that would warrant avoiding this effective treatment, let alone banning it.

50. In a 2020 study published in *Pediatrics*, the official journal of the American Academy of Pediatrics, researchers concluded that "[t]reatment 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. Suicidality is of particular concern for this population because the estimated lifetime prevalence of suicide attempts among transgender people is as high as 40%."[19]

51. As noted above, under the Endocrine Society Guideline, once an adolescent establishes further maturity and competence to make decisions about additional treatment, it may then be medically necessary and appropriate to provide gender-affirming hormone therapy to initiate puberty consistent with gender identity. For girls who are transgender, this means administering both testosterone suppressing treatment as well as estrogen to initiate hormonal puberty consistent with the patient's female gender identity. For boys who are transgender this means administering testosterone.

52. As a pediatric endocrinologist I provide the same types of treatments to people with intersex traits and cisgender people to affirm their gender identity that is prohibited by the medical care ban if provided to transgender people with gender dysphoria for the same reasons.

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[19] Turban, J.L., King, D., Carswell, J.M., *et al*. Pubertal Suppression for Transgender Youth and Risk of Suicidal Ideation. *Pediatrics*. 2020;145(2):e20191725, at *5; *see also* Wiepjes, C.M., Nota, N.M., de Blok, C.J., *et al*. The Amsterdam Cohort of Gender Dysphoria Study (1972–2015): Trends in Prevalence, Treatment, and Regrets. *The Journal of Sexual Medicine*. 2018; 15(4):582-590; De Vries, A.L., McGuire, J.K., Steensma, T.D., *et al*. Young Adult Psychological Outcome After Puberty Suppression and Gender Reassignment. *Pediatrics*. 2014; 134(4):696-704.

TREATMENTS FOR GENDER-AFFIRMING CARE ARE SIMILAR TO TREATMENTS FOR OTHER CONDITIONS

53. There is nothing unique about undergoing hormone treatment to sustain one's health; it is a common practice in many non-transgender patients for reasons unrelated to treatment of gender dysphoria. Many people with gender dysphoria have been on hormone therapy for decades and there is no evidence of any negative health outcomes that would outweigh the substantial benefit of the treatment. Likewise, many non-transgender individuals have to undergo hormone treatment for the majority of their lives, and it is well-managed.[20] This includes patients with various intersex conditions such as Turner syndrome and Klinefelter syndrome, premature ovarian failure, and cancer.

54. In addition to my patients with intersex traits, I regularly treat cisgender patients with the same hormone therapy that is provided to transgender patients. For example, cisgender boys with delayed puberty are often prescribed testosterone for delayed puberty. Without testosterone, for most of these patients, puberty would eventually initiate naturally but testosterone is often prescribed to avoid some of the social stigma that comes from undergoing puberty later than one's peers.

55. Likewise, cisgender girls with hypogonadotropic hypogonadism (delayed puberty due to lack of estrogen caused by a problem with the pituitary gland or hypothalamus) may be treated with estrogen to initiate puberty. I also treat cisgender girls with Polycystic Ovarian Syndrome (PCOS) with hormonal birth control or testosterone suppression to reduce some symptoms of the condition including excess facial hair.

[20] Asscheman et al., A long-term follow-up study of mortality in transsexuals receiving treatment with cross-sex hormones. *Eur. J. Endocrinol.* 2011 Apr;164(4):635-42. doi: 10.1530/EJE-10-1038.

56. Similarly, a cisgender boy and a transgender boy could both seek surgery to remove breast tissue to help align their body or appearance with their gender.

57. As an endocrinologist, I regularly prescribe hormone treatment to my patients—cisgender and transgender—for various medical needs. The care is always individually calibrated to the individual, their baseline hormone levels, and their particular medical needs.

58. The risks related to hormone therapy and puberty suppression generally do not vary based on the condition they are being prescribed to treat, and the same hormones are used for a variety of indications in addition to gender dysphoria. Additionally, these risks are much less likely when the treatment is prescribed and supervised by a clinician. When is obtained on the black market and not supervised by appropriate clinical providers, as with all medication, these risks increase dramatically.

59. Potential risks that may be present like potential impacts on fertility are extensively discussed with patients and families and all decisions are made on an individual basis weighing the risks and benefits.

60. One argument against gender-affirming medical treatment for transgender youth that is often raised is that the treatment is automatically sterilizing, but this is not accurate. Many transgender people (and cisgender 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. Pubertal suppression on its own has no impact on fertility. Hormone therapy can impact fertility but many transgender individuals conceive children after undergoing hormone therapy.[21] We also counsel

[21] 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. Pregnancy Outcomes After Fertility Preservation in Transgender Men. *Obstet Gynecol*. 2017;129(6):1031-1034; Neblett MF 2nd, Hipp

our patients taking testosterone that it is not an adequate form of birth control and patients can still become pregnant while on testosterone. New techniques are also being developed to help transgender men preserve oocytes even while on testosterone.

61. Many medical treatments that are necessary to preserve a person's health and well-being can impact an individual's fertility, but patients regularly proceed with the treatment after giving informed consent. With other endocrine conditions, the impact of treatment on fertility may be unknown but patients are individually counseled and empowered to make decisions based on what is best for their overall health. For example, with treatment for Klinefelter's Syndrome, which is an intersex condition where a person's testicles eventually fail, some data suggests that testosterone treatment impairs fertility, while other data suggests that testosterone treatment improves fertility. Patients are counseled about the various risks and side effects before any treatment is initiated.

62. In contrast to care for transgender youth, which can always leave room for fertility preservation, many surgical treatments performed on intersex infants—which the medical care ban permits—would permanently impact fertility.

63. Any suggestion that gender-affirming care is associated with adverse and sometimes fatal psychological consequences is incorrect. It is *withholding* this care that can be associated with fatal consequences, not providing it.

64. All medical treatment comes with risk, and there can be side effects with any medication. In the case of medical treatment for gender dysphoria, decades of research and clinical

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HS. Fertility Considerations in Transgender Persons. *Endocrinol Metab Clin North Am*. 2019;48(2):391-402; Stark BA, Mok-Lin E. Fertility preservation in transgender men without discontinuation of testosterone. F S Rep. 2022 Feb 9;3(2):153-156. doi: 10.1016/j.xfre.2022.02.002. PMID: 35789719; PMCID: PMC9250124.

experience have shown that the risk of adverse side effects from either pubertal suppression treatment or hormone therapy is low and it is greatly outweighed by the benefits of the care.

65. In my field of medicine, there are many examples of treatment that we provide even where the side effects can be very significant. As just one example, there are certain injectable medications used to treat Type 2 Diabetes that can cause severe gall bladder inflammation. I have had multiple patients who have needed their gall bladders removed as a result of this treatment, but this care is still provided because the benefits outweigh even these severe potential risks. In addition, many individuals are using medications in the category of GLP-1 agonists like liraglutide, dulaglutide, exenaglutide, and semaglutide for Type 2 Diabetes and weight loss. These medications also have been shown to cause pancreatitis, which can be deadly, and these are some of the most commonly requested medications for weight loss today. Finally, insulin, which is a lifesaving drug and required for life for those with Type 1 Diabetes, can have severe and deadly side effects if not used in a very careful manner. Severe hypoglycemia or low blood sugar can lead to seizure, coma and death in a very short period of time with doses in excess of need.

66. In sum, the medical treatments described above are safe, effective and essential for the well-being of many transgender young people. My patients who receive medically appropriate treatment for gender dysphoria experience significant improvement in their health. Medical treatment recommended for and provided to transgender adolescents with gender dysphoria can substantially reduce lifelong gender dysphoria and can eliminate the medical need for surgery later in life. Providing gender-affirming medical care can be lifesaving treatment and can improve the short- and long-term health outcomes for transgender youth.

HARMS OF WITHOLDING OR TERMINATING TREATMENT FOR TRANSGENDER YOUTH WITH GENDER DYSPHORIA

67. Withholding pubertal suppression and hormone therapy from transgender young people when it is medically indicated is extremely harmful. As noted above, administration of pubertal suppression has shown to be associated reduced distress in patients with gender dysphoria. If I was prohibited from treating my patients with this treatment where it is medically indicated, it would result in predictable and significant harms, including, at least, the partially irreversible changes from endogenous puberty described below.

68. The goal of treatment for gender dysphoria is to reduce the distress associated with the disconnect between a person's assigned sex at birth and their gender identity. Denying pubertal suppression treatment and gender-affirming hormones to a transgender adolescent who needs the treatment will not cause the adolescent to stop being transgender. It will only cause the minor to experience distress from lack of treatment.

69. From a medical perspective, it is at least as dangerous to withdraw treatment once it has been initiated as it is to withhold the initiation of treatment. If a clinician is forced to stop pubertal suppression as a result of a legal prohibition on the medical treatment, it will cause patients to resume their endogenous puberty. This could result in extreme distress for patients who have been relying on pubertal suppression to prevent bodily changes that come with their endogenous puberty. For a girl who is transgender, this could mean that she would immediately start experiencing genital growth, body hair growth, deepening of her voice and development of a more pronounced Adam's apple. This can lead to a life of increased risk of being easily identified and targeted for being transgender. This puts them at risk for discrimination, harassment, and death. For a boy who is transgender, this could mean that he would have the initiation of a menstrual cycle and breast growth. This could lead to the need for a mastectomy

that could have otherwise been avoided. These changes can be extremely distressful for a young person who had been experiencing gender dysphoria that was then relieved by the initiation of pubertal suppression. Many people may progress to self-harm and experience suicidality when their dysphoria worsens due to discontinuation of their gender affirming hormones.

70. Additionally, the effects of undergoing one's endogenous puberty may not be reversible even with subsequent hormone therapy and surgery, thus exacerbating lifelong gender dysphoria in patients who would have this treatment withheld or cut off. Bodily changes from puberty as to stature, hair growth, genital growth, voice and breast development can be impossible or more difficult to counteract.

71. If I had to pull my patients off treatment without medical indication, even for a short time, I would be concerned that some could become so traumatized they would resort to self-harm and potentially even attempt suicide. To take them off mid-treatment where the treatment is working could be life-threatening.

72. The medical care ban's provision of a six-month period to gradually decrease the dose of currently-provided pubertal suppression and hormone therapy does not ameliorate any of these risks. It is not just abrupt withdrawal of hormone therapy, which can cause severe physical side effects including hot flashes and headaches, that poses a risk to the patients currently receiving such treatment. For patients who are titrated down in doses to avoid these effects, taking patients off of a therapeutic dose of pubertal suppression or hormone therapy would cause the types of physiological changes inconsistent with gender identity that result in severe psychological distress for adolescents with gender dysphoria.

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Executed this 30 day of April 2023.

DEANNA ADKINS, MD

EXHIBIT A

DUKE UNIVERSITY MEDICAL CENTER

CURRICULUM VITAE

Date Prepared: April 17, 2023

Name:	Deanna Adkins, BS, MD
Primary Academic Appointment:	Associate Professor of Pediatrics, Career Track
Primary Academic Department :	Pediatrics
Secondary Appointment :	n/a
Present Academic Rank and Title :	Associate Professor
Date and Rank of First Duke Faculty Appointment:	July 1, 2004 Clinical Associate
Medical Licensure:	Since March 15, 2001
License #:	200100207 NC
Date:	06/29/2023 expires
Specialty Certification(s) and Dates:	10/16/2001-2018 General Pediatrics 8/18/2003 and current-Pediatric Endocrinology
Date of Birth:	06/29/1970
Place:	Albany, GA USA
Citizen of:	USA
Visa Status:	n/a

Education	Institution	Date (Year)	Degree
High School	Tift County High School	1988	Graduated with High Honors
College	Georgia Institute of Technology	1993	BS Applied Biology/Genetics High Honors

Education	Institution	Date (Year)	Degree
Graduate or Professional School	Medical College of Georgia	1997	MD

Professional Training and Academic Career

Institution	Position/Title	Dates
University of North Carolina Hospitals, Chapel Hill, North Carolina	Pediatrics Resident	1997-2000
University of North Carolina Hospitals, Chapel Hill, North Carolina	Pediatric Endocrine Fellow	2000-2004
Duke University Medical Center, Durham, North Carolina	Clinical Associate/Medical Instructor	2004-2008
Duke University Medical Center, Durham, North Carolina	Assistant Professor Track IV	2008-2020
Duke University Medical Center, Durham, North Carolina	Fellowship Program Director Pediatric Endocrinology- Associate PD-	2008-2010 & 2014-12/2019 2010-2014
Duke University Medical Center, Durham, North Carolina	Director Duke Child and Adolescent Gender Care Clinic	July 2015-present
Duke University Medical Center, Durham, North Carolina	Medical Director-Duke Children's Specialty of Raleigh	3/2017-1/2022
Duke University Medical Center, Durham, North Carolina	Associate Professor Pediatrics	1/2020-present
Duke University Medical Center, Durham, North Carolina	Co-Clinical Lead Duke Sexual and Gender Wellness Program	10/2021-present

Publications
Refereed Journals

Original Manuscripts:

1. Zeger M, **Adkins D**, Fordham LA, White KE, Schoenau E, Rauch F, Loechner KJ. " Hypophosphatemic rickets in opsismodysplasia," J Pediatr Endocrinol Metab. 2007 Jan;20(1):79-86. PMID: 17315533

2. Worley G, Crissman BG, Cadogan E, Milleson C, **Adkins DW**, Kishnani PS "Down Syndrome Disintegrative Disorder: New-Onset Autistic Regression, Dementia, and Insomnia in Older Children and Adolescents With Down Syndrome". J Child Neurol. 2015 Aug;30(9):1147-52. doi: 10.1177/0883073814554654. Epub 2014 Nov 3.PMID:25367918

3. Tejwani R, Jiang R, Wolf S, **Adkins DW**, Young BJ, Alkazemi M, Wiener JS, Pomann GM, Purves JT, Routh JC**,"** Contemporary Demographic, Treatment, and Geographic Distribution Patterns for Disorders of Sex Development".Clin Pediatr (Phila). 2017 Jul 1:9922817722013. doi: 10.1177/0009922817722013. PMID:28758411

4. Lapinski J1, Covas T2, Perkins JM3, Russell K4, **Adkins D** 5, Coffigny MC6, Hull S7. "Best Practices in Transgender Health: A Clinician's GuidePrim Care". 2018 Dec;45(4):687-703. doi: 10.1016/j.pop.2018.07.007. Epub 2018 Oct 5. PMID: 30401350 DOI: 10.1016/j.pop.2018.07.007

5. Paula Trief, Nicole Foster, Naomi Chaytor, Marisa Hilliard, Julie Kittelsrud, Sarah Jaser, Shideh Majidi, Sarah Corathers, Suzan Bzdick, **Adkins DW**, Ruth Weinstock; "Longitudinal Changes in Depression Symptoms and Glycemia in Adults with Type 1 Diabetes", Diabetes Care; 2019 Jul;42(7):1194-1201. doi: 10.2337/dc18-2441. Epub 2019 May; PMID: 31221694

6. Mann, Courtney M., Kristen Russell, Alexy Hernandez, Nicole Lucas, Erik Savereide, Dane R. Whicker, **Deanna W. Adkins**, Nancy L. Zucker, Raye Dooley, and Bryce B. Reeve. "**Concept elicitation for the development of quality measures in transgender health.**" In *Quality of Life Research*, 28:S104–S104. SPRINGER, 2019.

7. M. Hassan Alkazemi, MD, MS, Leigh Nicholl, MS, Ashley W. Johnston, MD, Steven Wolf, MS, Gina-Maria Pomann, PhD, Diane Meglin, MSW**, Deanna Adkins, MD**, Jonathan C. Routh, MD, MPH; Community Perspectives on Difference of Sex Development (DSD) Diagnoses: a Crowdsourced Survey, 2020 Jun;16(3):384.e1-384.e8. doi: 10.1016/j.jpurol.2020.03.023. Epub 2020 Apr 27.PMID: 32409277

8. McGuire H, Frey L, Woodcock LR, Dake E, Carl A, Matthews D, Russell K, **Adkins DA** "Differences in Patient and Parent Informant Reports of Depression and Anxiety Symptoms in a Clinical Sample of Transgender and Gender Diverse Youth" LGBT Health 2021-LGBT Health. Aug-Sep 2021;8(6):404-411. doi: 10.1089/lgbt.2020.0478. Epub 2021 Aug 12 34388043

9. Amanda Lund, KristenRussell, **DeannaAdkins**, Virginia C. Simmons, *"*Simulation-Based Teaching to Improve Perioperative Care of Transgender Patients*"*. Clinical Simulation in Nursing Volume 66, May 2022, Pages 76-84

10. Kathryn Blew, $MD_{(a)}$; Katha Desai, $MS_{(b)}$; Kristen Russell, $MSW_{(c)}$; Alexandra Stonehill, $MPH_{(b)}$; Jessica Lunsford-Avery, $PhD_{(d)}$; Sujay Kansagra, $MD_{(e)}$; Pinar Gumus Balikcioglu, MD, $MHSc_{(a,f)}$; **Deanna Adkins, MD**$_{(a}$ Sleep disturbances and associated health and psychosocial risk factors for impaired sleep in adolescents who identify as transgender/non-binary; in submission to Journal of Adolescent Medicine

Non Author publications

1. Turner DA, Curran ML, Myers A, Hsu DC, Kesselheim JC, Carraccio CL and the Steering Committee of the Subspecialty Pediatrics Investigator Network (SPIN). Validity of Level of Supervision Scales for Assessing Pediatric Fellows on the Common Pediatric Subspecialty Entrustable Professional Activities. *Acad Med*. 2017 Jul 11. doi: 10.1097/ACM.0000000000001820. PMID:28700462
2. Mink R, Carraccio C, High P, Dammann C, McGann K, Kesselheim J, Herman B. Creating the Subspecialty Pediatrics Investigator Network (SPIN). Creating the Subspecialty Pediatrics Investigator Network Richard Mink, MD, MACM1, Alan Schwartz, PhD2, Carol Carraccio, MD, MA3, Pamela High, MD4, Christiane Dammann, MD5, Kathleen A. McGann, MD6, Jennifer Kesselheim, MD, EdM7, J Peds 2018 Jan;192:3-4.e2. PMID: 29246355 DOI: 10.1016/j.jpeds.2017.09.079
3. Erratum 2018. PMID: 29246355 DOI: 10.1016/j.jpeds.2017.09.079

4. Mink RB[1], Myers AL, Turner DA, Carraccio CL. Competencies, Milestones, and a Level of Supervision Scale for Entrustable Professional Activities for Scholarship. Acad Med. 2018 Jul 10. doi: 10.1097/ACM.0000000000002353. [Epub ahead of print] PMID: 29995669 DOI:10.1097/ACM.0000000000002353 Mink RB, Schwartz A, Herman BE,

Editorials

a. Editorial Charlotte News and Observer-"**NC pediatric specialists say HB2 'flawed' and 'harmful,' call for repeal**"; April 18, 2016; authors: Deanna Adkins, Ali Calikoglu, Nina Jain, Michael Freemark, Nancie MacIver, Robert Benjamin, Beth Sandberg, etc.
b. Editorial Raleigh News and Observer-"**Beverly Gray: Repeal HB2"** May 2016: authors Beverly Gray, Deanna Adkins, Judy Sidenstein, Jonathan Routh, Haywood Brown, Clayton Afonso, William Meyer, Kristen Russell, Caroline Duke, Nancy Zucker, Kevin Weinfurt, Jennifer St. Claire, Angela Annas, Katherine Keitcher

Chapters in Books

1. Endocrinology Chapter writer and editor in **Fetal and Neonatal Physiology for the Advanced Practice Nurse**; Editors: Amy Jnah DNP, NNP-BC, Andrea Nicole Trembath MD, MPH, FAAP. December 21, 2018 ISBN-10 0826157319

2. Chapter in **Dental Clinics of North America Adolescent Oral Health Edition** Understanding and Caring for LGBTQ+ Youth for the Oral Health Care Provider; Authors Joshua Raisin, DDS, Deanna Adkins MD, Scott B. Schwartz, DDS, MPH.. 2021 Oct;65(4):705-717. doi: 10.1016/j.cden.2021.06.007. Epub 2021 Jul 30.
3. Intersex Identity and Gender Assignment; **Encyclopedia of Adolescent Health**; Editor Brian Eichner, MD; Author Deanna Adkins MD 2021-

Selected Abstracts:

1. Redding-Lallinger RC, **Adkins DW,** Gray N: The use of diaries in the study of priapism in sickle cell disease. Poster Abstract in Blood November 2003
2. **Adkins, D.W.** and Calikoglu, A.S.: Delayed puberty due to isolated FSH deficiency in a male. Pediatric Research Suppl. 51: Abstract #690. page 118A, 2004
3. Zeger, M.P.D**., Adkins, D.W.,** White, K., Loechner, K.L.: Opsismodysplasia and Hypophosphatemic Rickets. Pediatric Research Suppl.-from PAS 2005
4. Kellee M. Miller[1], David M. Maahs[2]**, Deanna W. Adkins[3]**, Sureka Bollepalli[4], Larry A. Fox[5], Joanne M. Hathway[6], Andrea K. Steck[2], Roy W. Beck[1] and Maria J. Redondo[7] for the T1D Exchange Clinic Network; Twins Concordant for Type 1 Diabetes in the T1D Exchange -poster at ADA scientific sessions 6/2014

5. Laura Page, MD; Benjamin Mouser, MD; Kelly Mason, MD; Richard L. Auten, MD; **Deanna Adkins, MD** CHOLESTEROL SUPPLEMENTATION IN SMITH-LEMLI-OPITZ: A Case of Treatment During Neonatal Critical Illness; - poster 06/2014
6. Lydia Snyder**, MD, Deanna Adkins, MD,** Ali Calikoglu, MD; Celiac Disease and Type 1 Diabetes: Evening of Scholarship UNC Chapel Hill 3/2015 poster
7. **Deanna W. Adkins, MD,** Kristen Russell, LCSW, Dane Whicker, PhD, Nancy Zucker, Ph. D**:** Departments of Pediatrics and Psychiatry, Duke University Medical Center*;* Evaluation of Eating Disturbance and Body Image Disturbance in the Trans Youth Population; WPATH International Scientific Meeting June 2016; Amsterdam, The Netherlands
8. Rohit Tejwani**, Deanna Adkins,** Brian J. Young, Muhammad H. Alkazemi,Steven Wolf[3], John S. Wiener, J. Todd Purves, and Jonathan C. Routh; Contemporary Demographic and Treatment Patterns for Newborns Diagnosed with Disorders of Sex Development; Poster presentation at AUA meeting 2016
9. S.A. Johnson, **D.W. Adkins,** Case Report: The Co-diagnosis of Hypopituitarism with Klinefelter in a patient with short stature; Pediatric Academic Society Meeting 2018
10. Lapinski J, Dooley R, Russell K, Whicker D, Gray, B**, Adkins DW; Title:** Developing a Pediatric Gender Care Clinic at a Major Medical Setting in the South; Workshop Philadelphia Trans Wellness Conference 2018
11. Jessica Lapinski, DO, **Deanna Adkins, MD**, Tiffany Covas, MD, MPH, Kristen Russell, MSW, LCSW; An Interdisciplinary Approach to Full Spectrum Transgender Care; WPATH Conference Buenos Aires, Argentina, November 3, 2018
12. Leigh Spivey, MS, Nancy Zucker, PhD, Erik Severiede, B.S., Kristen Russell, LCSW, **Deanna Adkins, MD**; USPATH Washington, DC Sept. 2019. Platform presentation; "Psychological Distress Among Clinically Referred Transgender Adolescents: A latent Profile Analysis"
13. Lisa Rasbach, PhD, CPNP, BC-ADM; Virginia Purrington, BSN, RN, CDCES; **Deanna Adkins, MD**; Robert Benjamin, MD; INNOVATIONS: Improving care of patients with Type 1 Diabetes Mellitus through use of telemedicine and outreach

Non-Refereed Publications

i. Print
   i. Editorial Charlotte News and Observer-"**NC pediatric specialists say HB2 'flawed' and 'harmful,' call for repeal**"; April 18, 2016
   ii. Editorial News and Observer-HB2 May 2016 -"**Beverly Gray: Repeal HB2"** May 2016

ii. Digital
   i. Supporting and Caring for Transgender Children-HRC guide 2017
   ii. Initial endocrine workup and referral guidelines for primary care Providers-Pediatric Endocrine Society Education Committee Website Publication
   iii. Only Human Podcast August 2, 2016; https://www.wnycstudios.org/podcasts/onlyhuman/episodes/id-rather-have-living-son-dead-daughter

iii. Media and Community Interviews
   i. Greensboro News and Record Community Forum October 2017-*Transgender Panel Moderator*
   ii. Playmakers Repertory Company-Chapel Hill: *Draw the Circle* Transgender Community Panel 2017
   iii. Duke Alumni Magazine
   iv. Duke Stories
   v. DukeMed Alumni Magazine
   vi. NPR Podcast Only Human piece on caring for transgender youth and follow up piece 1 year later
   vii. ABC11, WRAL, WNCN News Coverage
   viii. News and Observer: Charlotte and Raleigh
   ix. Duke Chronicle and Daily Tarheel Article
   x. Huffington Post Article
   xi. https://www.businessinsider.com/the-olympics-uses-testosterone-to-treat-trans-athletes-like-cheaters-2021-7
   xii. https://www.wral.com/top-transgender-doctor-warns-teen-treatment-ban-could-be-deadly/19618762/
   xiii. http://www.ncpolicywatch.com/2021/04/07/experts-bills-targeting-trans-people-get-the-science-wrong/
   xiv. AAMC "What is gender affirming care" April 12, 2022
   xv. NC Policy Watch "Parents Bill of Rights," targeting LGBTQ kids is full of wrongs, opponents say 6/2/2022
   xvi. Time Magazine; Pediatricians Who Serve Trans Youth Face Increasing Harassment. Lifesaving Care Could Be on the Line; Feb 16, 2022
   xvii. MCSFM POWER HOUR 7/16/21
   xviii. Doctor Radio on SXM Differences of Sex Development and Transgender care Jan 20, 2022

Published Scientific Reviews for Mass Distribution

Position and Background Papers

Other Publications

Editorial Experience

Editorial Boards

Ad Hoc scientific review journals

Hormone Research, Lancet, NC Medical journal, Journal of Pediatrics, Pediatrics, Transgender Health, International Journal of Pediatric Endocrinology, Journal of Adolescent Health

Consultant Appointments

North Carolina Newborn Screening Committee
Human Rights Campaign Transgender Youth Advisory Board

Scholarly Societies

Professional Awards and Special Recognitions

ESPE Fellows Summer School, 2001
NIH Loan Repayment Program Recipient
Lawson Wilkins AstraZeneca Research Fellow, 2003-2004
HEI 2017 Leaders in LGBTQ Healthcare Equality
Inside Out Durham Appreciation Award
Duke Health System Diversity and Inclusion Award January 2018
America's Top Doctor's 2020, 2021
Duke Health System Diversity and Inclusion Award January 2020- CDHD Course Team
Teaching for Equity Fellow 2021
Durham Magazine Women of Achievement 2022

Organizations and Participation

Organization	Role	Dates
American Academy of Pediatrics	Member Council on Information Technology Member Reviewer COCIT Member Section on Endocrinology	1998 to present 2004 to present
Pediatric Endocrine Society	Member Member Education Committee SIG member-Transgender, DSD, liaison to Advocacy SIG Writer Web Publication for Pediatricians	2000 to present
NC Pediatric Society	Member	1998 to present
Endocrine Society	Member	2000 to present

WPATH-International Transgender Society	Member	2014 to present

External Support

Approximate Duration	PI	% Effort	Purpose	Amount Duration
Past	JAEB Center-Deanna Adkins	0.5%	Type 1 diabetes research	$ 5yr
Past	Josiah Trent Foundation Grant-Deanna Adkins	0.5%	Transgender and eating disorder research	$5000 3 yr
November 2020	CMS-Deanna Adkins and Rob Benjamin	1%	Innovations Grant	Co PI 3 yrs
Gifts	Private Family		Multiple including leadership training initiatives as well as other LGBTQ work	Approx. $18,000 Unlimited duration

Mentoring Activities

Faculty	
Fellows, Doctoral, Post docs	**Nancie MacIver-fellow**
	Dorothee Newbern-fellow
	Krystal Irizarry-fellow
	Kelly Mason-fellow
	Laura Page-fellow
	Elizabeth Sandberg fellow UNC
	Dane Whicker-psychology post doc **Leigh Spivey-psychology post doc** **Joey Honeycutt, Chaplain Intern** **Kathryn Blew-research mentor**

Residents	**Yung-Ping Chin-mentor**
	Kristen Moryan-mentor
	Jessica Lapinski-mentor
	Kathryn Blew-research mentor
	Matthew Pizzuto, Briana Scott-Coach, Laura Hampton Coach
Medical students	**Tulsi Patel-continuity clinic mentor** **Ernest Barrel-continuity clinic mentor** **Sonali Biswas-research mentor 3rd year project** **Katha Desai-research mentor 3rd year project** **Alexa Stonehill-research mentor 3rd year project** **Nicholas Hastings-clinical mentor**
Undergraduates High School Students	**Erik Severeide-Duke University** **Lindsay Carey-Dickinson College** **Jeremy Gottleib-Duke University** **Jay Zussman-Duke University** **Aeryn Colton-Intern Apex High School**
Graduate Student MBS program	**Nicholas Hastings**
UNC Gillings School of Public Health MPH students	**Lauren Frey, Emily Dake, Alexandra Carle, Lindsay Woodcock, Hunter McGuire**
Nurse Practioners	**ECU, Duke-multiple**
DNP candidates Pediatric Dental Fellow UNC	**Ethan Cicero-PhD committee member** **Amanda Lund-PhD committee member** **Joshua Raisin-research associate**

Education / Teaching Activities
Didactic classes

High School

a. Cary Academy: Work Experience Program 2021

Undergraduate

1. Creating Excellence and Ambulatory Nursing 2008
2. Profile in Sexuality Research Series at Duke CGSD 2016

3. Duke School of Nursing BSN Course on Sexual and Gender Health guest lecturer: fall 2017, spring 2018, fall 2018, spring 2019, fall 2019, spring 2020, fall 2020, spring 2021, fall 2021, Spring 2022
4. Duke School of Nursing Lecture on Transgender Care-recorded for reuse
5. Duke Physician Assistant Program guest lecturer; fall 2017, spring 2018
6. Duke Global Health Course guest lecturer fall 2016
7. Duke Neuroscience course on Gender and Sex guest lecturer fall 2016
8. Duke Ethics Interest group guest lecturer fall 2018, 2020
9. Duke EMS group lecture fall 2018
10. Duke Physician Assistant Program LGBTQ+ Rotation Educator 2019 to present
11. Global Health Sexual and Gender Minority Seminar Lecturer 2020
12. Duke Children's hospital careers panel Feb16, 2021

UME:

1. Cultural Determinants of Health and Health Disparities Course: Facilitator and developed one class; 2017-18 and 2018-19, 2019-20, 2020-21, 2021-22; Steering Committee member for course development
2. UNC School of Medicine Lecturer for LGBTQ Health series 2016-recorded for reuse
3. Duke Pediatrics Interest Group lecture Nov 2020
4. Duke Med Pediatrics Interest Group lecture fall 2018, 2020
5. Lecturer Body and Disease Course MS1 2019, 2020, 2021, 2022 Clinical Correlation Differences of Sex Development
6. Lecturer Body and Disease Course MS1 2020, 2021, 2022 Transgender Medicine
7. Lecture on Cancer in Transgender and Intersex Individuals April 14, 2021 Mount Sinai School of Medicine
8. Lecture on Transgender Medicine Univ. of Tenn. Health Science Center School of Medicine May 7,2021

Graduate School Courses:

1. Master of Biomedical Science Program-guest lecturer on Transgender Medicine fall 2016
2. School of Nursing Graduate Intensive Course Lecturer on Sexual and Gender Health; fall 2017, spring 2018, fall 2018, spring 2019, Fall 2019
3. Fuqua School of Business Med Pride Panel and presentation fall 2017
4. Master of Biomedical Science Program Mentor 2019-2020
5. Endocrinology for Nurse Practioners Duke Neonatal Nurse Practioner Program August 2021
6. Duke scholars gender training fall 2021

DUHS Employee Education

1. Annual Duke Human Resources Lunch and Learn on Gender Diversity 2016, 2017, 2018

2. Over 100 lectures across the institution on gender including CHC front desk/nursing staff, hospital wide social work/case management, radiology, PDC clinic front desk/nursing staff
3. Steering Committee for Sexual and Gender Identity Epic Module development and Educational module development
4. DCRI Pride invited speaker
5. Duke Children's staff update 2021
6. Clinic staff education for Adult Endo Clinic 1A session April 27, 2022
7. DEI presentation at Duke Development Department All Hands meeting April 25, 2022

GME:

1. Adult Endocrinology Fellows every year on growth and/or gender
2. Pediatric Residency Noon conferences on Growth and Gender-yearly
3. Reproductive Endocrinology Noon Conferences every 2 to 3 years
4. Adult Endocrinology Fellow Lectures on Growth and Puberty yearly
5. Psychiatry Noon Conferences periodically
6. Family Practice Noon Conference periodically
7. Pediatric Endocrine Fellow lectures twice a year or more
8. Pediatrics grand rounds: Vitamin D, Type 2 diabetes, Pubertal Development, Gender Diverse Youth
9. Duke Urology Grand Rounds 2016
10. Duke Ob/Gyn Grand Rounds 2017
11. Webinar for Arkansas Children's Hospital on transgender care 2018
12. Reproductive Challenges for Transgender people-Reproductive Endocrinology-2020
13. Metabolic Bone Disease in Neonates-NICU fellows 2019
14. Duke Psychiatry Grand Rounds 2017
15. Duke Pathology Grand Rounds fall 2020
16. Duke Family Medicine Community Rotation Educator 2019 to present
17. NC NAPNAP Symposium Keynote Speaker October 10, 2020
18. Duke Internal Medicine LEADS program speaker; Transgender Care 8/3/2021
19. Equity and Social Justice Webinar: Clinical Advocacy and Care of Transgender and Gender Diverse Youth October 27, 2021Harvard Equity and Social Justice Webinar
20. Duke Gynecology Grand Rounds: gender health and wellness March 30, 2022
21. Compassionate Care Conf Duke Health May 12, 2022

Development of Courses Educational programs

1. Pituitary Day October 2019-full day multispecialty seminar for caregivers of patients with hypopituitarism-Organized and developed the curriculum
2. Development of Gender Diversity Education for Health System education
3. Steering Committee for Cultural Determinants and Health Disparities Course
4. Helping to Adapt Resident Coaching Program to Pediatric Fellowships
5. Developed half day course for Duke Student Health on Care of the Gender Diverse Student with multiple disciplines included
6. Course Director: American Diabetes Association Camp Carolina Trails rotation for fellows and residents: 2009, 2011 – 2019
7. Medical Education for Camp Morris 2019, 2021, 2022

Development of Assessment Tools and Methods

1. Currently under development with Population Health Sciences-method to assess gender dysphoria; received Brief High Intensity Production (BHIP) grant for this collaboration; NIH grant Submitted March 2020; I am writing the portion of grant giving background on the population and the need for better measures.
2. Collaborating with the Duke Chaplain group to develop a spiritual assessment tool for gender diverse children and their families. Completed 2019

Educational leadership roles

1. Fellowship Program Director Pediatric Endocrinology 2008-2019
2. Course Director: American Diabetes Association Camp Carolina Trails rotation for fellows and residents: 2009, 2011 to 2019
3. Course Director: Diabetes Family Connection Camp Morris 2019, 2021, 2022

Educational Research

1. Working with coaching program for residents modified and applied in pediatric fellows
2. Worked with the Council on Pediatric Subspecialties EPA study

Invited Lectures and Presentations

1. NC Peds Conference: Pubertal Development 2016
2. Trent Center for Ethics Lecture May 2017: Transgender Medicine: a Wealth of Ethical Issues
3. Visiting Professorship: ECU Brody School of Medicine Invited Professor October 2017
4. Time to Thrive Arkansas Children's Hospital April 2018
5. College of Diplomates-pediatric dentistry society-Webinar on transgender care 4/1/2020
6. NAPNAP keynote speaker Annual Meeting October 2020
7. Wake County Duke CME program: Type 2 diabetes treatments in pediatrics 2019
8. Lecture on Cancer in Transgender and Intersex Individuals April 14, 2021 Mount Sinai School of Medicine
9. Lecture on Transgender Medicine Univ. of Tenn. Health Science Center School of Medicine May 7,2021
10. Equity and Social Justice Webinar: Clinical Advocacy and Care of Transgender and Gender Diverse Youth October 27, 2021 Harvard Equity and Social Justice Webinar
11. Parent Project Muscular Dystrophy Annual Conference 2022 June 2022

International Meetings

1. WPATH Amsterdam 2016
2. WPATH Buenos Aires 2018

National Scientific Meetings (invited)

1. Transgender SIG Developing a Patient Registry

2. Patient Advocacy for Transgender Youth Philadelphia 2018

Instructional Courses, Workshops, Symposiums (National)

1. The Seminar-Fort Lauderdale, FL Invited Speaker on Care of Transgender Youth 2017
2. Time to Thrive Arkansas Children's Hospital April 2018
3. National Transgender Health Summit UCSF Jan 2018: Providers as Advocates Workshop
4. Magic Foundation-Chicago, IL Annual Speaker on Precocious Puberty, Adrenal Insufficiency, and Growth Hormone at National Conference 2016, 2017, 2019, 2020, 2021
5. Equity and Social Justice Webinar: Clinical Advocacy and Care of Transgender and Gender Diverse Youth October 27, 2021Harvard Equity and Social Justice Webinar
6. Parent Project Muscular Dystrophy Phoenix, AZ Talk on Gender Transitions June 25, 2022

Regional Presentations and Posters

a. North Carolina Pediatric Society: Pubertal Development Presentation– Pinehurst, NC 2017
b. North Carolina Psychiatric Association: Caring for Transgender Children Presentation and Workshop on key concepts in care of transgender child-Asheville, NC 2017
c. ECU Campus Health Presentation Caring for Transgender Patients 2018
d. Radiology Technology Symposium Presentation on Caring for Transgender Patients 2018
e. Duke CME in Wake County-Update on Type 2 Diabetes Treatments Feb 2019
f. Hilton Head Pediatric CME Course-Update on Type 2 Diabetes, Short Stature, and Caring for Transgender Patients June 2019
g. Wake County Duke Pediatrics CME Type 2 diabetes treatments Feb 2019
h. NAPNAP Annual Meeting Keynote Speaker 2020
i. Sexual and Gender Minorities Research Symposium Duke Feb 2020 and March 2022; speaker and organizer

Local Presentations

1. Grand Rounds: 2016 to present-Duke Pediatrics twice, Moses Cones Pediatrics, ECU Ob/Gyn, Duke Ob/Gyn, Duke Psychiatry, Duke Urology, Duke Adult Endocrinology, Duke Pathology
2. Prior to 2016-Rex Grand rounds: Salt and Water balance, New treatments in Pediatric Diabetes, Adrenal Insufficiency, Duke peds grand rounds Bone Health, Type 2 Diabetes Mellitus
3. Duke Women's Weekend 2018 hosted by Duke Alumni Association
4. NCCAN Social Work Training 2016
5. NAPNAP lecture 2016 and 2018 and 2020
6. Profiles in Sexuality Research Presentation at Duke Center for Sexual and Gender Diversity 2017
7. Duke LGBTQ Alumni Weekend Presentation 2017

8. UNC Chapel Hill Campus Health Presentation 2018
9. Duke Student Health Presentation 2017, 2018, 2019 (workshop)

Clinical Activity

1. Duke Consultative Services Creekstone-3.5 days per week in endocrinology, gender care, and diabetes
2. Duke Child and Adolescent Gender Care Clinic 1/2 day per month at the CHC
3. Inpatient Consult Service Pediatric Endocrinology 1 week per month

Administrative and Leadership Positions

1. Medical Director Duke Children's and WakeMed Consultative Services of Raleigh stepped down Jan 2022
2. Director Duke Child and Adolescent Gender Care Clinic 2915 to present
3. Pediatric Endocrinology Fellowship Program Director 2008-2019
4. Clinical Co Lead Duke Sexual and Gender Wellness Program 2021 to present

Committees

1. Graduate Medical Education Committee-2008-2019
2. School of Medicine Sexual and Gender Diversity Council 2015 to present
3. Pediatrics Clinical Practice Committee-2015? To present
4. Pediatric Diversity and Inclusion Committee 2018 to present
5. Vice Chair for DEI Pediatrics Dept Search Committee 2021-22

Community

1. Test proctor local schools
2. Guest lecture GSA multiple years
3. Diabetes Camp over 10 years
4. 100 Women who give a hoot
5. Collaborated to bring "Becoming Johanna" to Duke along with multiple screenings with the director and the lead actor
6. Teddy Bear Hospital volunteer both years
7. Apex Pride Planning Committee 2022